EQUITY IN SAFETY: HOW TRANSPORTATION SAFETY PROFESSIONALS IN ALBERTA'S TRUCKING INDUSTRY VIEW THEIR ROLES, THEIR SYSTEMS, AND THEIR INDUSTRY

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ABSTRACT

This study examines equity and equality from a qualitative, critical theory perspective in occupational and trucking-specific safety dynamics in Alberta's trucking industries. Based on interviews with twelve trucking safety professionals currently working in their profession in Alberta, either as carrier employees or independent consultants, this study investigates how equity and equality are used in the management of trucking safety systems and how trucking professionals, and the systems they oversee, address social and cultural factors such as socioeconomics, gender, and ethnicity on safety performance.

Results indicate that trucking safety systems are fundamentally equality-based: the goal is no negative incidents of loss for everyone affected by a company's activities. Trucking safety professionals use equity-based and equality-based approaches to safety management, with equity-based approaches generally used for training and mentoring at the level of individual workers. Using reflexive thematic analysis, I describe the following five themes: 1) safety activities focus on compliance, not necessarily safety outcomes; 2) employer power over staff greatly influences safety outcomes; 3) safety professionals believe in the importance of the work they do; 4) the personal is professional, and; 5) equity and equality, as ways to get to equality, lie on a spectrum, not a dichotomy. Further research is recommended to examine, in praxis at a carrier, what safety management activities are more effective when based on equity, equality, or a degree of both.

ACKNOWLEDGEMENTS

This thesis is the product of curiosity on my part from my industry experiences, encouragement from Dr. Bonifacio to begin graduate school, and the interdisciplinary guidance of Drs. Michael Belzer and Robbin Derry.

This thesis grows from a place of support created by Katy Elniski, my partner for life, who shows me the importance of not only learning but also working towards positive personal growth and how this growth can be used to change the world around me for the better.

This thesis is the result of parents, Joanne Lavkulich and Bruce Elniski, who encouraged me to get my hands dirty at work while pursuing higher education, and instilled a lifelong love of learning.

TABLE OF CONTENTS

-

LIST OF TABLES

Participant	Employment Status	Presented Gender	Time as Trucking Safety Professional	OHS Training Overview	NSC Training Overview
1	Carrier employee	Woman	10 years	Formally educated; no mentorship	Formally educated; no mentorship
2	Carrier employee	Woman	12 years	Formally educated; has been mentored	Formally educated; has been mentored
3	Carrier employee	Man	11 years	No education; has been mentored	No education; no mentorship
4	Carrier employee	Woman	4 years	Formally educated; has been mentored	Formally educated; has been mentored
5	Carrier employee	Woman	15 years	Formally educated; has been mentored	Formally educated; no mentorship
6	Carrier employee	Man	16 years	No education; no mentorship	Formally educated; no mentorship
7	Consultant	Man	13 years	No education; no mentorship	Formally educated; has been mentored
8	Consultant	Woman	14 years	No education; no mentorship	Formally educated; has been mentored
9	Consultant	Woman	23 years	Formally educated; no mentorship	Formally educated; no mentorship
10	Carrier employee	Man	10 years	No education; has been mentored	Formally educated; no mentorship
11	Carrier employee	Man	9 years	Formally educated; has been mentored	Formally educated; has been mentored
12	Consultant	Man	10 years	Formally educated; has been mentored	Formally educated; has been mentored

Table 1 - A summarised listing of the questionnaire data showing employment status, presented gender, time as a trucking safety professional, and overview of safety-related formal training and mentorship for all participants. For participants who have no education and no mentorship in OHS and/or NSC, they are considered to have been self-taught.

LIST OF FIGURES

Figure 1 - A visualisation of the themes, their subthemes, and their relationships to the research questions.

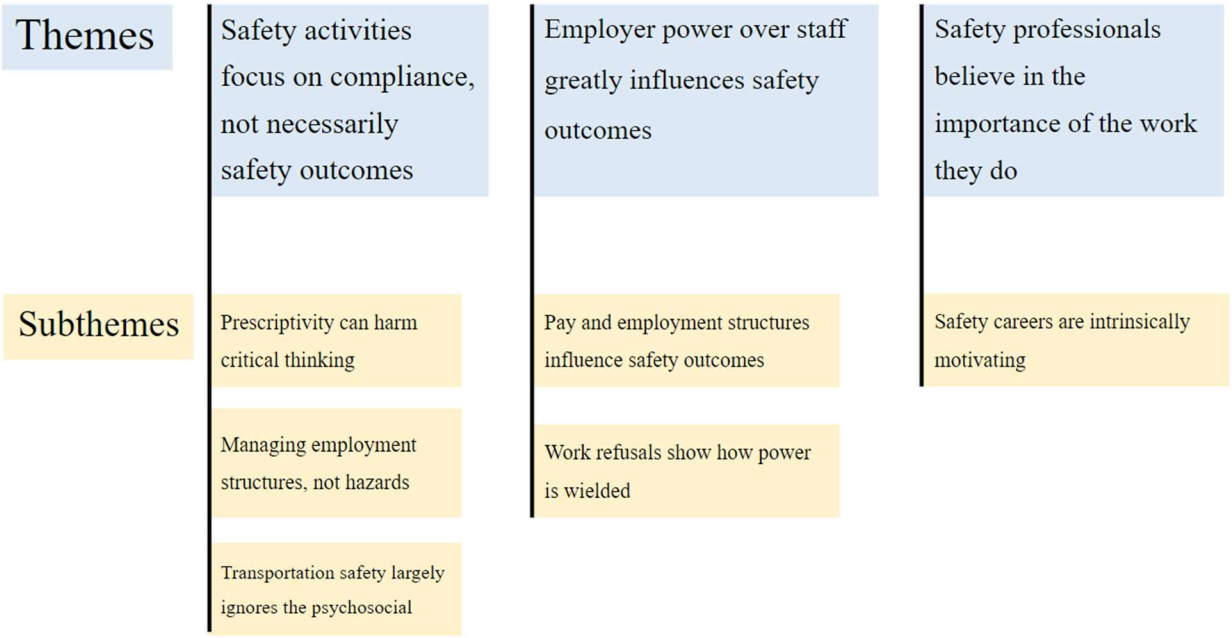

Figure 2 - A visualization of the first three themes of my research project along with their corresponding subthemes. There are only the two levels of themes in these results: themes and subthemes. The subthemes are not presented in any sort of hierarchy.

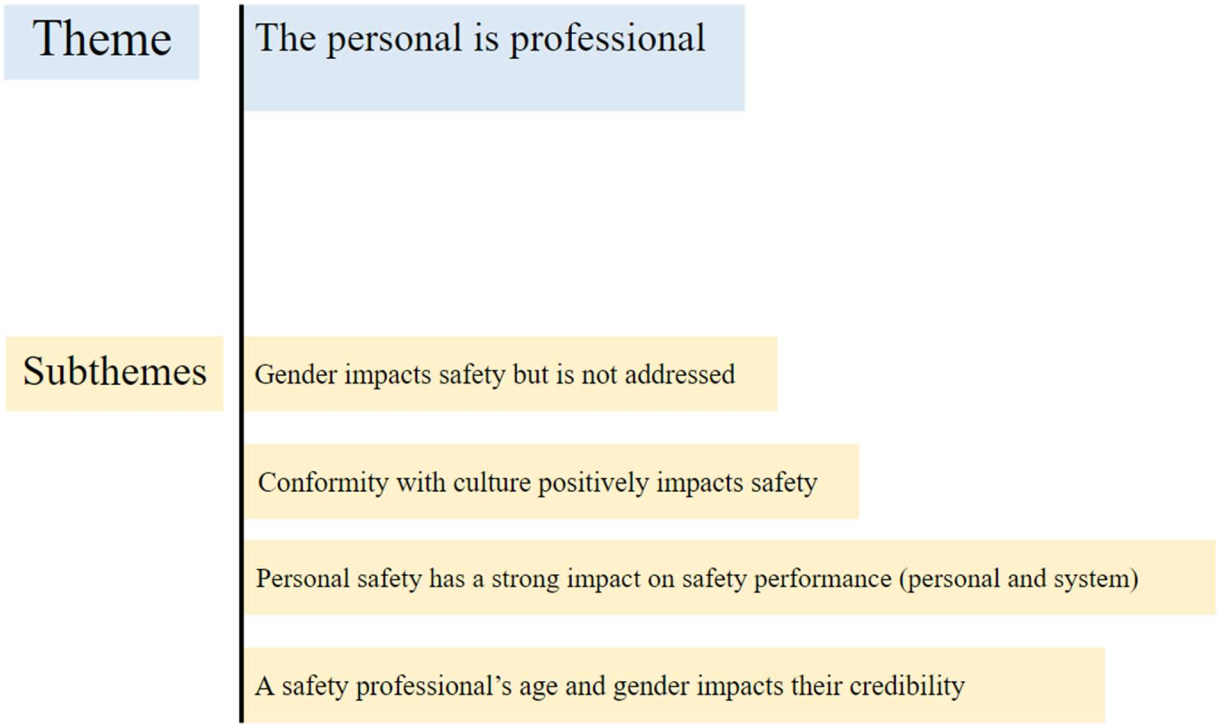

Figure 3 - A visualization of the fourth theme and its corresponding subthemes. There are only the two levels of themes in these results: themes and subthemes. The subthemes are not presented in any sort of hierarchy.

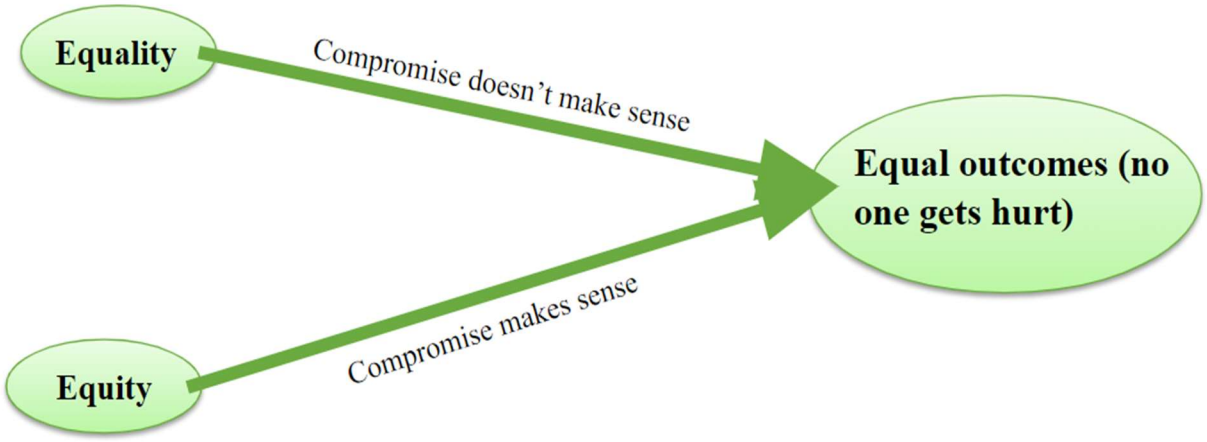

Figure 4 - Equality and equity as strategies to bring about equality (i.e., equal outcomes). In a safety system context, desirable outcomes are equal: no one gets hurt, injured, or otherwise suffers harm as a result of their occupation. Whether either equity or equality makes sense to bring about this outcome, though, depends on how individual people experience the safety system and the culture of the organization. If a certain individual or group of people are fairing poorer compared to others, it may make sense to compromise on an established organizational practice, such as offering training in English only, and adapt to meet the needs of the workforce, such as offering training in English and the primary language of all members of the workforce, if that can move the organization's safety performance towards no injuries. However, there are times when equality will be

the only appropriate strategy, such as requiring workers to have a specific qualification like a Class 1 licence, when a compromise cannot be made.

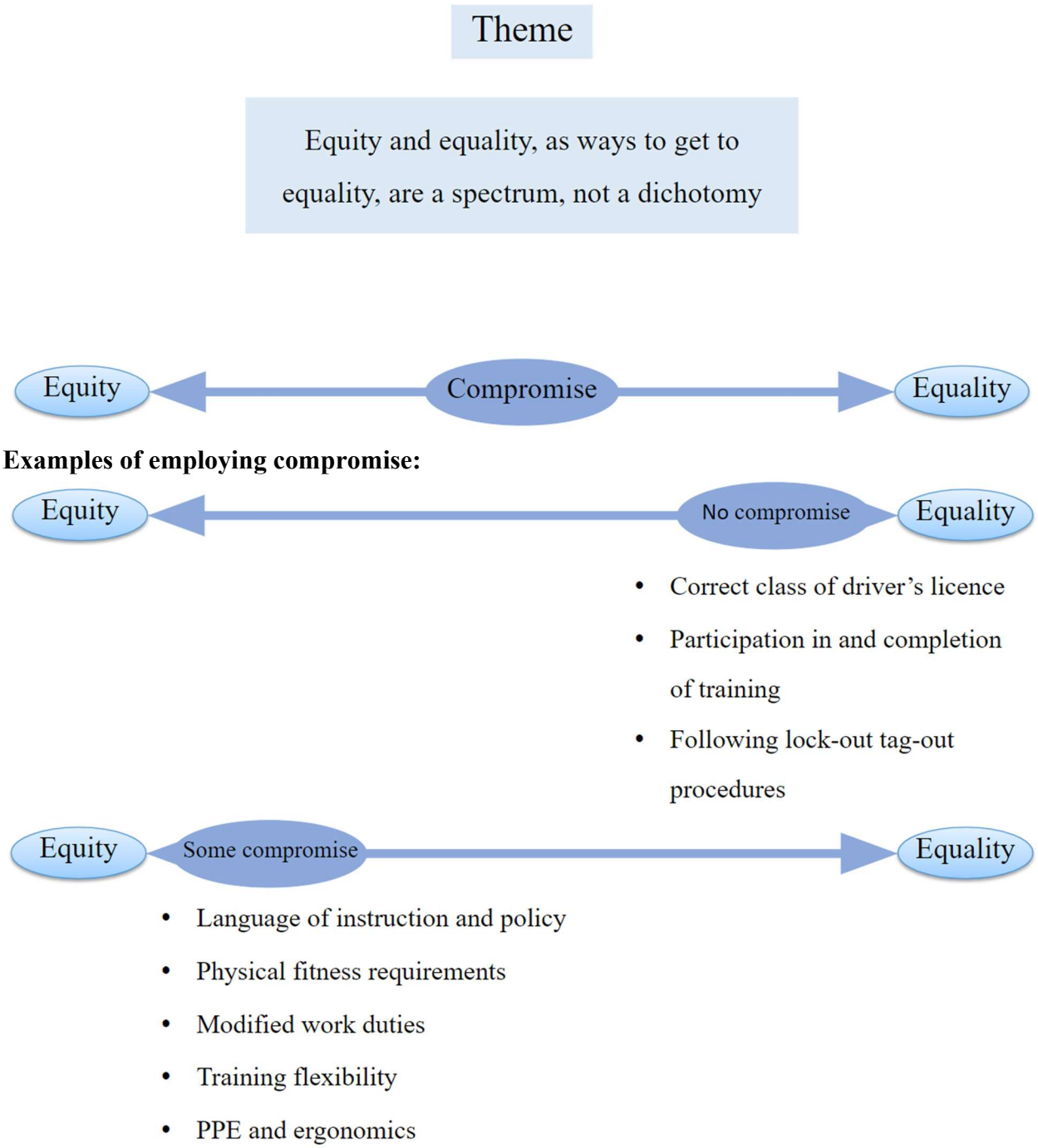

Figure 5 - A visualization of the fifth theme; this theme has no subthemes beneath it. To further expand on this theme, I have presented my equity-equality spectrum as a sliding

scale where the degree of compromise that fits a given situation is the variable that moves between the spectrum's extremes. Compromise refers to the degree to which we are willing to challenge an existing policy, cultural norm, system process, or any other work-directing protocol for the purpose of bringing about the desirable outputs of our efforts; in the case of a safety system, these outputs would be equal (no one gets hurt). The figure then presents how compromise may or may not be an appropriate action for various safety-relevant requirements common in industrial settings.

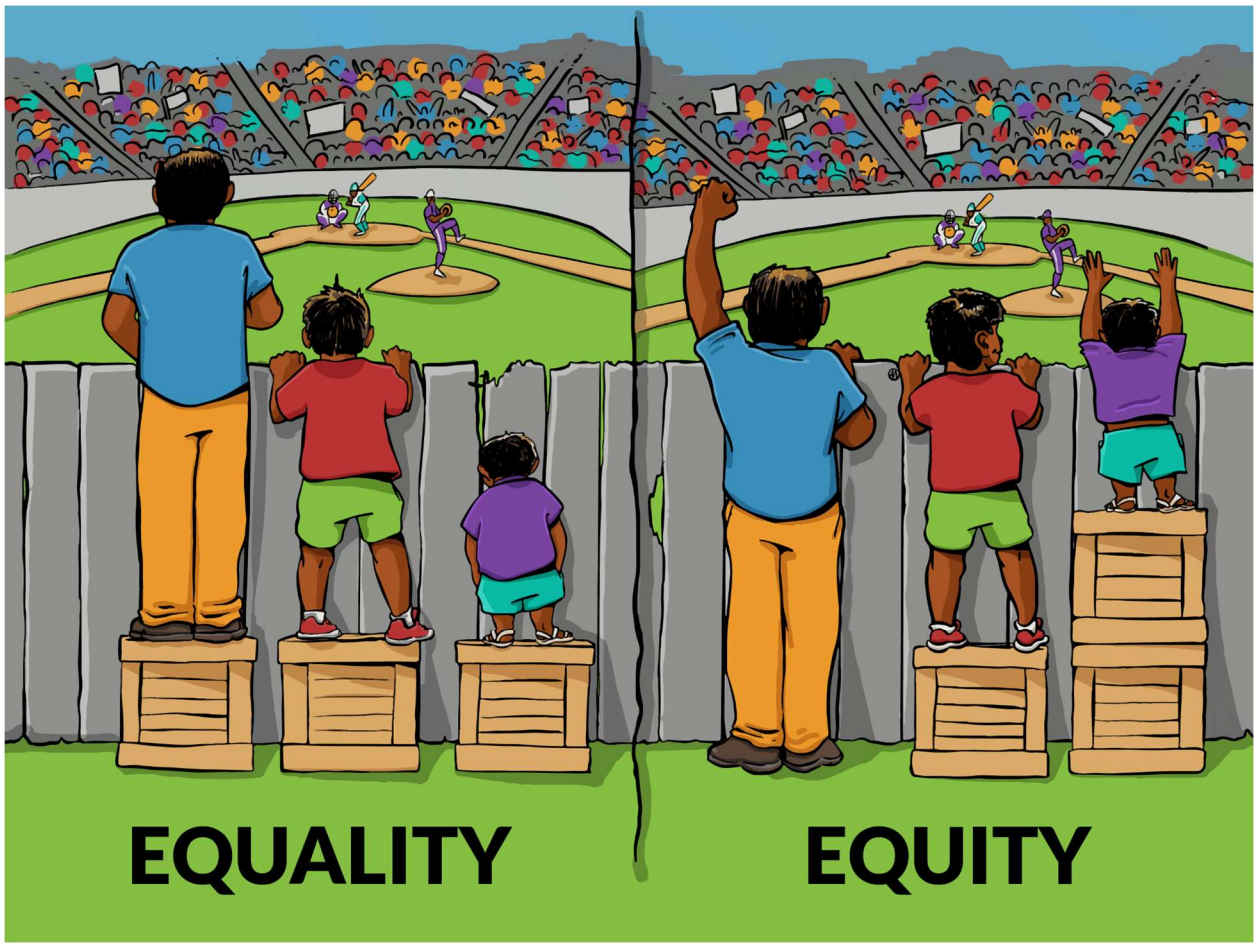

Figure 6 - A common image used to describe the difference between equality and equity. Source: Interaction Institute for Social Change | Artist: Angus Maguire. (https://interactioninstitute.org/illustrating-equality-vs-equity/).

LIST OF ABBREVIATIONS AND KEY TERMS

AMTA - Alberta Motor Transport Association. A trucking industry safety association that simultaneously offers safety services to carriers primarily in Alberta and also advocates for industry improvements based on input from its membership.

BCRSP - Board of Canadian Registered Safety Professionals. The accrediting body that owns and oversees the Canadian OHS designation, the Canadian Registered Safety Professional (CRSP).

Carrier - a commercial motor vehicle company. In this thesis, it will refer to companies that operate commercial trucks for the purpose of hauling freight for hire and/or freight and equipment that supports the company's operations.

CCMTA - Canadian Council of Motor Transport Adminstrators. A Canadian federal organization that maintains, publishes, and reviews the NSC standards that are used by Transport Canada and the provinces to create commercial road transpsortation safety legislation.

COR - Certificate of Recognition. An example of a standardized OHSMS that companies can obtain by working with a health and safety association like AMTA to build themselves and then have audited externally. Once awarded a COR, Alberta's Workers' Compensation Board provides the company with rebates.

CRSP - Canadian Registered Safety Professional. A professional designation for safety professionals in Canada and beyond that focuses on competency in OHS.

CTSP - Certified Transportation Safety Professional. A professional designation for safety professionals in Alberta and beyond that focuses both on OHS and NSC competency.

ELD - Electronic Logging Device. Technology meant to track a commercial driver's compliance with HOS regulations.

LMIA - Labour Market Impact Assessment. A process employers must undergo in order to be eligible to employ TFWs. The LMIA process is meant to ensure there is a need to bring workers into Canada to perform labour for an employer because there is not sufficient labour currently available in Canada.

NSC - National Safety Code. A set of sixteen standards, published by the CCMTA, that are used as the framework for the Canadian provinces to create their commercial road transportation safety legislation.

OHS - Occupational Health and Safety. A term that refers to the legislation, standards, and practices used and sometimes mandated by governments to protect workers from hazards related to their occupations. OHS is not specific to trucking but trucking is included in OHS legislation in Canada.

OHSMS - Occupational Health and Safety Management System. The term I will use in this thesis to describe the collective activities and policies of a company to maintain compliance with NSC and OHS regulations, and to protect people who interact with the company's operations.

OSHA - Occupational Safety and Health Adminstration. The American federal government agency that oversees OHS in the USA.

Psychosocial - A term that refers to aspects of a person's occupation that can impact their physical and mental health, including factors from their environment. AMTA defines psychosocial as "a term indicating the combination of psychological, environmental, and societal factors that affect an individual's psychological well-being" (Elniski, 2022, 8), also a suitable definition for the purpose of this thesis.

Safety - The absence of harm to individuals physical and mental health. In an OHS context, safety is the absences of harm stemming from a person's occupation.

Safety Coordination - The activities of a company that are meant to influence safety outcomes by administering an OHSMS.

Safety Management - The activities of a company that are meant to influence safety outcomes by modifying an OHSMS.

TFW - Temporary Foreign Worker. An individual permitted to enter Canada specifically for the purpose of providing labour to an employer. TFWs may enter on a closed work permit where they are bound to a single employer as a condition of their entry into Canada, as is the case for TFW truck drivers. They may also enter on an open work permit, which allows them to move between employers like domestic Canadians and is not permitted for those working as drivers for trucking companies except under specific conditions.

CHAPTER I - INTRODUCTION

It was dark, snowy, and slippery as I pulled into the Petro Pass truck stop in Nipigon, Ontario (ON) in the evening of April 8th, 2022. My ride, a 2009 Ford Escape pulling a utility trailer, could not climb the approach to the main parking area, so I hugged a curb away from the fuel islands and readied myself for sleep. The car's passenger seat, the only place in the vehicle not packed with boxes and bags, was my home for that week as I drove across Canada from Lethbridge, Alberta (AB) to my new home in Annapolis Royal, Nova Scotia (NS). My wife, Katy, had flown out ahead of time and was already with her family in Halifax along with our twin five-year-olds, Susan and Mack.

It had been about two years since I slept at a truck stop, and this was the first time I had done it not in the sleeper of a tractor-trailer. Being comfortable to live in a vehicle is a strange sort of privilege. As a white man, I do not fear gender- or race-based violence in Canada. As a former long-haul trucker used to living cheap coupled with years of field exercises in the army reserves, I have a high tolerance for spartan accommodations that served me well in my 2022 drives across the country.

While this drive (and the second one that would follow in a month) were simply part of a busy year of moving that was happening alongside of my Master of Arts (MA) program at the University of Lethbridge, it was hard not to see it as a sort of field research activity. Here I was, right in the middle of the trucking industry, living like a trucker again while still aware of my now-outsider status to the people living in those idling trucks at the other side of the parking lot. Given my past experience as a trucker and fleet safety manager, current profession as a trucking safety consultant for a health and safety association, and current enrollment as a full-time MA student

researching social dynamics in trucking safety systems, it felt wrong to be in a motel. As odd as it may sound, I was getting back to my roots for a time (and saving cash).

This thesis is my contribution to scholarship but, more importantly, part of what I hope to be a lifetime of contribution to compassionate safety. I know safety system management is capable of examining the intersections of race, gender, personal socioeconomics, and other social factors; this work is my first attempt to make such arguments through higher education.

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The following sections introduce my theoretical framework, research questions and objectives, and this project's significance and scope. I start with an explanation of my past trucking work experience to provide context around my situatedness in this research.

My Relationship with the Trucking Industry

After completing my Bachelor of Science with a Major in Biological Sciences and Minor in Women and Gender Studies (WGST) at the University of Lethbridge in 2013, I went trucking. I did not know what I wanted to do for work. I had previous externally-imposed ambitions of becoming a physician, but that path was not looking promising for me; several rounds of medical school rejections and dissatisfaction in a health care aide job left me looking for freedom from this path. Since I had agricultural experience driving light trucks and trailers and a romanticised interest in long haul trucking, I decided to get my Alberta Class 1 licence and give trucking a shot. I also joined the Canadian Armed Forces reserves as an artillery soldier, a part-time commitment that gave me military and dangerous goods truck driving experience.

I spent four years as a long haul flatbed trucker with a home base of Lethbridge, Alberta, with most of this time spent at a single carrier. About nine months of this work at the start of my trucking career saw me working at an oil and gas-focused Albertan carrier hauling material to

service oil rigs in Northern Alberta and Northern British Columbia. The rest of my experience was with a small carrier hauling general flatbed freight across the Canada-US border.

During my time at the small carrier, I spent about three years as a lease operator. I was able to pay off the truck, but unable to retain its ownership due to carrier-fronted repair costs and a questionable lease agreement. As a result, I did not continue with an earlier ambition of becoming an owner operator. I did, however, continue at this same carrier by becoming their safety officer and fleet safety manager, returning to a role as an employee with a transition into their office. In this role, I continued to go out on the road occasionally to maintain my skill set, train drivers, and recover stranded vehicles and trailers. However, most of my duties were office-based and included hiring and training new drivers, maintaining the safety management system, addressing issues of noncompliance (at the individual driver and corporate level), investigating incidents, liaising with law enforcement, and representing drivers in matters of compliance.

I left the small carrier in early 2021 when I was hired by Alberta Motor Transportation Association (AMTA), a not-for-profit trucking industry safety and advocacy association in Alberta. My title with AMTA is Industry Advisor in Safety and Compliance, and I work with Albertan carriers to develop and improve their safety and compliance performance. AMTA is not involved in this research project.

Background of Study

My reason for starting this research project is ultimately to identify ways working conditions in Alberta's trucking industry can be improved. I have witnessed injustices and labour-related abuses and, while I understand the importance of the industry and have many positive memories of my time as a trucker, I saw power disparities between employers and employees that seemed to lead to unsafe and unhealthy working conditions. I surmise that there are systems in

place that perpetuate these power disparities and inequities and, because of my trucking experience and knowledge, I am in a unique position to better understand these dynamics and realities.

Most of my trucking experience comes in two areas: 1) long haul flatbed truck driving and 2) fleet safety management. I continue to work in transportation safety at a professional level. Since this is my area of expertise, exploring links between transportation safety and equity ultimately benefits the industry. I focus on occupational health and safety management systems (OHSMSs) in Alberta's trucking industry: how these systems are perceived by safety professionals in the industry and how these systems - in both their theoretical and practical forms - either bring about or impede worker safety in the context of equity. I aim to produce knowledge about OHSMS implementation as a tool to not only meet compliance requirements and reduce injury rates, but to further understand how an OHSMS contributes to the culture of a workplace. Furthermore, this knowledge takes into consideration multiple theoretical frameworks related to the theories of critical analysis, safety management, and equity.

Critical Theoretical Framework - Feminism, Intersectionality, and Equity

Feminist research fuses critical theory in challenging gender imbalances resulting from societal systems and norms (Haraway, 1988; Simpson, 2015; Leavy and Harris, 2019, 3-7; Felluga, 2015, 104-106; Arvin et al., 2013). The "critical" from critical theory means to question current systems with the goal of bringing about a society with fewer injustices and inequities (Felluga, 2015, xxii-xxiv). I want to conduct my research from a critical perspective and focus on identifying ways my work can bring about positive change. Feminist research challenges current systems that create and sustain gender-based inequities (Leavy and Harris, 2019, 3-7) and, because women in Alberta's trucking industry are widely reported as being underrepresented in truck driving positions, I want to take a gender-conscious approach to my data analysis that equalizes

the voices of men and women. For example, Trucking HR Canada, a Canadian organisation that studies labour markets in Canada's trucking industry, reports that women make up less than 4% of workers in truck driver positions (2021, 5). In Alberta, there are about 33-34 times as many male Class 1[1] licence holders than there are female Class 1 licence holders (Government of Alberta, 2019, 2). While holding a Class 1 licence does not necessarily mean the holder is currently working as a truck driver, it does show a huge gender disparity in the group of people who have sought the necessary qualifications for truck driving employment.

It is important to note that I limited my gender analysis to a man-woman binary based on gender presentation provided by the LinkedIn profiles of participants (i.e., names, declared pronouns, and appearance). Much of the Western world is now engaged in the reconceptualization of gender. The work of gender theorists has created an awareness of gender diversity and the socially constructed nature of Western binary gender norms, and various stakeholders (such as medical professionals and policymakers) are working to expand on this binary for the purpose of greater inclusivity (DuBois and Shattuck-Heidorn, 2021). While this work is of great importance, my project does not focus specifically on gender binary analysis and instead examines safety systems while considering gender. Furthermore, gender as a binary is the assumed norm in trucking, at least in the conversations in which I engage in a professional capacity. Bringing a deeper nonbinary gender analysis or to explore gender issues between women and men into this research is, however, not within the purview of this present study; attempting to explore nonbinary gender dynamics is not realistic given the scope of this research project.

By conducting my study from a critical theory perspective, I also look at how my findings can be used to improve equity and justice within trucking. In other words, this will not necessarily

[1] Class 1 licences are the highest class of commercial licence issued in Alberta; they allow the holder to commercially drive a tractor-trailer truck and any other commercial vehicle that is not a motorcycle.

be a feminist study using trucking safety as a case study; it is, instead, an interdisciplinary study of trucking safety from an interdisciplinary, feminist-informed perspective that focuses on equity as a central concept. In addition to feminist theory, I consider equity and intersectionality in my theoretical approach to data collection and analysis and doing so from a systems input-output perspective. For the purpose of my study, the following definitions of equity, equality, inequality, and systems input-output perspective are used:

Equity: attempting to bring about equal outcomes through a willingness to provide different levels of resources to different individuals based upon their need. This is different than inequality because equity is a conscious strategy to produce equal outcomes.

Equality: providing equal access to resources for all individuals, either as a strategy to bring about equal outcomes or without regard for the equality of the outcomes.

Inequality: knowingly or unknowingly providing different levels of resources to different individuals without consideration to the equality of the outcomes. This is different than equity because the different levels of resources being provided to different individuals are not being done to produce equal outcomes.

Systems Input-Output Perspective: I am using the terms equity, equality, and inequality in the context of how a system brings about an outcome in an organization. More specifically, I am interested in how an OHSMS can best bring about the equality-centric outcome of no one getting hurt. Safety professionals could use equity or equality or a combination of both in their approach to safety management, and the resources referenced in the definitions refer to what protections the OHSMS offers individuals under the employer's direction and the outcomes from said definitions refer to safety performance (i.e., how many and what people are getting hurt).

The above definitions are further illustrated in Figure 4. Figure 4 maps and presents equality and equity both as ways to get to the outcome of equality; in other words, equality is both an outcome *and* a strategy.

Intersectionality is a key concept in my research design and data analysis. An intersectional research approach is one where the impact of different social identity markers are considered together to understand how individuals, all of whom are subjected to multiple identity markers (i.e., white and male and homosexual, or First Nations and heterosexual and neurotypical, or literate and female and with a degree of minor left leg impairment), differentially experience a system (Felluga, 2015, 155-157; Crenshaw, 1991, 1242). In trucking, an equitable employer would be one that has taken steps to address problems in their operations that prevented certain groups of people from participating in any aspect of the organisation. In an OHSMS context, an employer practicing equity in safety is one that has adjusted aspects of its safety system to address individual differences in their workforce for the purpose of attempting to ensure safety outcomes are equal across the workforce.

I argue that equity and intersectionality are important concepts for my data collection and analysis is because many Albertan trucking company safety programs do not consider these topics in their design. The concept of equality is well-understood in the trucking industry today, but there is no industry-wide sophisticated understanding of the difference between equality and equity, an understanding of how intersectionality plays a role in the safety management of a diverse fleet, or why issues related to equity and intersectionality are preventing fleets of recruiting and retaining diverse groups of people. While my beliefs are rooted in my first-hand experiences in the industry, other researchers have identified a lack of consideration for equity, intersectionality, and critical research in the study of OHSMSs and organisational leadership (Premji, 2019; Flynn et al., 2021;

Flynn et al., 2022; Derry, 2023; Habib et al., 2016). Trucking and other forms of transportation are starting to be approached through critical methodologies that account for intersectionality and its role in equitable outcomes (Hanson, 2021; Agyeman and Doran, 2021; Maphumulo, 2021; McLean, 2017; McLean, 2017a; Balay, 2018). However, the intersection of trucking and OHSMS scholarship - my area of research - has not been adequately explored from a critical, qualitative, and intersectional perspective.

The word "equity" is commonly associated with Diversity, Equity, and Inclusion (DEI) initiatives which are now common topics of discussion and promotion in mainstream business media. This has the effect, in my experience, of having people associate the term "equity" with race and gender-based efforts to improve organizational culture. Outside of improving culture and thereby mitigating risk from psychosocial hazards, the safety professionals I have spoken to do not consider equity and equality to be strategic considerations in the management of their OHSMSs. I have had the opportunity to present on this research project already at conferences related to transportation safety, and I have found that describing equity and equality in terms of strategic safety management is an idea new to the profession and one that garners interest from professional audiences.

From an ontological and epistemological perspective, I am taking a critical realist approach (Braun and Clarke, 2022). I am a realist because I accept that there is a truth and reality separate from what I construct through my research. However, I take a *critical* realist stance in this project because I acknowledge that my research results are socially situated and cannot be completely decontextualized and separated from language and culture. A realist, similar to a positivist or postpositivist, would argue their research findings are understandable without social context and could perhaps even be applied as a generalization to a broader subset of the population. A

relativistic stance that rejects a singular truth, on the other hand, would argue the research process constructs a unique reality every time it takes place and that there is no truth or reality outside of human activities. Critical realism is situated somewhat between these two spaces and is an appropriate theoretical stance for reflexive thematic analysis of this research (2022, 169-173). I acknowledge my role and embrace my subjectivity as a researcher while still claiming I can help create knowledge that can be actionably applied to the trucking safety industry for the purpose of ongoing safety improvements. In other words, I can identify meaning that overlaps with a reality I have not explored in the broader industry. As a result, I am performing fully qualitative research that is focused on meaning more than truth by digging deep into the culture and nuance of trucking safety that cannot be adequately explored through purely quantitative methods.

Safety Theoretical Framework - Safety Management and Trucking Safety Theory

Safety is a profession with its own theories, models, and currently-accepted best practices (Bird et al., 2014; Dyck, 2020). There is no unifying term or wide-reaching regulatory body that groups safety professionals into a discrete and well-defined category[2, 3], but the thoughts and practices within safety follow general idealistic concepts. This section provides a high-level

[2] There are several organisations that offer professional designations for safety professionals that recognise safety-related education, professional experience, and a minimum standard of knowledge. The Board of Canadian Registered Safety Professionals (BCRSP) offers a Canada-wide designation, the Canadian Registered Safety Professional (CRSP) designation, that is intended to show the holder is a competent generalist in occupational health and safety practice (BCRSP, 2022); the CRSP designation is well-respected in many industries in Canada and I am a current holder. Alberta Motor Transport Association (AMTA) offers a professional designation, the Certified Transportation Safety Professional (CTSP) designation, that is modelled similarly to the CRSP designation (AMTA, 2020); the CTSP designation is a newer designation that is not as widely known outside of Alberta, but it is gaining recognition in the Western Canada's trucking industry since it is the only trucking-specific safety designation in Canada as of this writing. I hold both the CRSP and CTSP designations.

[3] The Alberta Society of Health and Safety Professionals (ASHSP) is an Alberta organisation dedicated to bolstering Alberta's safety profession by having it protected through regulation in the same way lawyers, engineers, and accountants are regulated (Greene and McEnhill, 2018). As of this writing, the ASHSP is active but safety remains an unregulated profession in Alberta.

overview of the dominant themes in contemporary safety management theory that relate to my study. This means focusing on accident causation theory and organisational safety structure theory as is commonly taught in OHS educational programs (Bird et al., 2014; Dyck, 2020; University of Alberta, 2020).

Worker behaviours, as the accepted root cause of accidents, was the dominant mindset in industrial leadership up until the middle of the 20th century (Bird et al., 2014, vii-xii; Dyck, 2020, 16-22). While individuals and management at some organisations may still default to this mindset, modern safety professionals and educational institutions generally consider deficiencies in the senior management of an organisation as the root cause(s) for any workplace accident, incident, fatality, injury, or illness (Bird et al., 2014, 19; Dyck, 2020, 68, 69). As a result, organisational and management theories have become integrated into formal safety education in North America (Dyck, 2020, 19-70). Safety, as a profession, generally accepts the concept that proper actions on the part of senior management can prevent the majority of negative incidents.

Behaviour-Based Safety (BBS), a safety methodology that emphasises the importance of behavioural psychology in improving worker safety performance, is a controversial area of safety theory. BBS supporters look to contemporary understandings of worker behaviour modification as a solution for improving safety performance (Knipling, 2009, 294-301; Heinrich et al., 1980). Critics of BBS claim it is difficult to implement and often oversimplifies the complexities of human behaviour, leading to negative safety outcomes especially when safety initiatives become fear-based and encourage incident underreporting (Lloyd, 2021; Long, 2012). It is not so much that BBS theory is criticised as being fundamentally wrong as it is criticised for often being poorly implemented and understood by the field practitioner and typical organisations. Contemporary approaches to safety now condemn a compliance-focused, micro-managing approach and instead

advocate for safety management that emphasises leadership's soft skill development, empathy, and teambuilding (Rebbitt, 2020; Lloyd, 2021). Thus, BBS programs that have any element of fear, mistrust, and micromanagement are falling out of favour in modern safety management thought circles.

In terms of idealistic organisational structure, the safety manager position or department is typically modelled as follows:

1. The safety manager or department reports directly to the highest individual authority in the company. Examples of such individuals include the President, Chief Executive Officer (CEO), Board of Directors, and owners.
2. The safety manager or department acts as an internal consultant and subject matter expert to all levels of the organisation for the purpose of ensuring positive health and safety outcomes. This positions them outside of most of the operational chain of command in a typical organisational chart, allowing them to provide unbiased input, training, and recommendations to ensure health and safety performance is prioritised in all aspects of an organisation's operations.
3. The safety manager or department oversees the management of the occupational health and safety management system (OHSMS), but does not manage the organisation's workers. This means, ideally, safety does not conduct disciplinary activities and nor does it relieve management of any of their operational responsibilities.
4. The safety manager or department is provided with regular opportunities for professional development so they are aware of current best practices, theories, and regulations.

5. The safety manager or department is ethically bound to protect the health and safety of all individuals, even if doing so contradicts other organisational objectives.
6. The safety management system should be integrated into the rest of the organisation so that safety principles and actions become present in all organisational actions.
    a. This is a seemingly contradictory item. Afterall, how can a safety department that is intentionally structured independently from the rest of the organisation be integrated into it? What is meant here is that the safety department succeeds in making safety a fundamental value in the activities of other departments.

As it can be seen from the above list, the safety industry has a distinct vision for how safety professionals should be included in an organisation. It is generally believed, in the safety profession, that the above structuring of the safety manager's role or department positions them in a way that is best to reduce negative incidents. As a personal critique, the word "integrated" is commonly used in the discipline of OHS in the context of "the safety system should be integrated into the overarching management system". I see this as an example of how the letter of a rule may stand in the way of its spirit. "Integration" implies something adapting to become part of something else. If, for example, Thing A is integrating into the larger Thing B, it is Thing A that needs to learn to be more like Thing B. I do not think "integration" means Thing B does not change at all; I do think it implies that Thing A changes the most so that, when integrated into Thing B, it is more like Thing B and ready to participate in the way Thing B sees fit.

When I read the sentence "Ideally, the safety management system should be fully integrated into the rest of the company's management system", I see the implication that the safety system needs to bend and twist to fit into the larger, more important management system: anything

in the safety system that is not aligned with management cannot be maintained, thus an integrated safety management system compromises its values if necessary to meet the operational needs of the organisation. When I have read this type of sentence in my formal safety education and in current safety theory, I do not think this is the intended meaning. However, I believe the implication is strong.

I wrote the above list as a summary of my understanding of current common, ideal safety management structuring. This is based upon my education, work experience, and professional development as a trucking safety professional in Alberta. Bird et al.'s *Practical Loss Control Leadership* text (2014) is a staple in the University of Alberta's OHS Certificate and Diploma program, and it is used as the textbook for their OHS introductory course (University of Alberta, 2020). Bird et al., who describe safety in terms of "loss prevention", emphasise the importance of management's commitment to health and safety, the importance of establishing a management system for meeting safety objectives, and management's central role in preventing incidents through proper high-level controls (2014, 43-58).

The University of Alberta's OHS course, Introduction to Health & Safety Systems, presents key areas of responsibility for a safety professional (2020, Module 4). These include in-field and administrative activities, and the emphasis is on planning, development, training, mentoring, coaching, and constant system evaluation; management responsibilities like direct worker supervision and discipline are not included.

Professional safety designations typically require the designation holder to sign off on and adhere to a code of ethics. For both the BCRSP's CRSP and AMTA's CTSP designations, there is a code of ethics the holder must adhere to in order to remain a designation holder. These codes include language that emphasises the importance of upholding legal responsibilities, protecting the

health and safety of people even if directed by an employer to do otherwise, and maintain a practice of constant professional development (Board of Canadian Registered Safety Professionals, n.d.; AMTA, 2017).

Dyck presents a comprehensive textbook on occupational health and safety that is used by the University of Alberta in their Management of Health & Safety Systems course (University of Alberta, 2021). In this text, the safety professional is assigned general responsibilities like advising on health and safety matters and compliance, OHSMS administration and review, coaching, and leadership; non-structured safety positions with poorly-defined responsibilities are not recommended (Dyck, 2020, 131-132, 1463-1486).

It is common for safety tasks or even entire positions to be performed by an external consultant, and this is recommended in safety texts for situations where internal staff lack the competencies necessary to protect the organisation and its workers (Lloyd, 2021; Rebbitt, 2020). In a consultant-organisation relationship, the items in the list I present occur more naturally. This is because a consultant typically reports to an individual in the organisation with at least enough authority to authorise the expense (supporting list item 1), a consultant naturally acts in an advisory position (supporting list item 2), a consultant may manage or administer an OHSMS but will rarely have direct management responsibilities over the organisation's workers (supporting list item 3), and a consultant needs to remain knowledgeable to stay competitive and may be bound to a code of ethics for a designation they hold as part of their practice (supporting list items 4 and 5).

Specific to the trucking industry, trucking company safety programs in Alberta typically emphasise on-road safety performance over other safety performance metrics. Instead of transportation safety being a component of OHS, Alberta's on-road safety legislation for commercial carriers is regulated separately. Specifically, it is found in the *Traffic Safety Act*

whereas OHS legislation is found in the *Occupational Health and Safety Act* if the carrier is provincially-regulated, or Part II of the *Canada Labour Code* if the carrier is federally-regulated. In Alberta, government explanatory material for OHS compliance does not address transportation-specific requirements, and vice-versa. The reason why this is significant for OHSMS theory is because this regulatory segregation means trucking companies often have two safety programs to address each type of legislation. In my experience, many trucking companies have no OHSMS to manage compliance with the *Occupational Health and Safety Act* and only have a program to manage their *Traffic Safety Act* responsibilities. Since carriers are typically concerned with insurance costs and the risk that comes from on-road collisions, it is understandable, though not excusable, why transportation-specific safety is given greater priority over safety in other parts of their operations. This means the safety theory after which transportation companies use to model their programs can vary. It is important to note that trucking companies may place a greater emphasis on BBS and on administrative controls that involve directing drivers to behave in a certain way (Knipling, 2009, 294-301 and 391-440). If the trucking company's safety manager or department staff have received education in safety management theory, this does not change the fundamental idealistic organisation of the safety manager and department as outlined in my 6-item list above; but, it does suggest that implementation of the program will favour behavioural interventions in situations where other non-trucking organisations may favour an engineered solution. For example, an engineered solution to preventing falls from a vehicle's deck could include the installation of barriers and railings, whereas a behaviour-only approach would be to alert workers of the dangers of falling without physically altering the worksite. The solitary nature of a trucker's job where policies and procedures may be the only tool available to the trucking company to direct safe work practices make behavioural interventions attractive and, perhaps, the

only possible solution for many safety issues. Those critical of BBS (Lloyd, 2021; Long, 2012) would, as a result, suggest trucking companies may be lagging in terms of trust and team building in their OHSMSs.

If the trucking company's safety manager or department staff have not received education in safety management theory and instead have received education only in transportation safety and compliance specific to their operations (or have learned about transportation safety directly from their own industry experience without formal education), they would not have any theory to support the structuring of their position in accordance with the above 6-item list. In such an organisation, safety will likely be focused on reducing collision rates, managing compliance with legislation to avoid penalties from law enforcement officers, and may not focus on other health and safety concerns resulting from driving and non-driving tasks. Since traffic safety legislation like Alberta's *Traffic Safety Act* is not built on an Internal Responsibility System (IRS)[4] like Canadian OHS legislation, the driver will receive far greater negative attention both from on-road law enforcement and carrier management because the driver's actions are seen as a root cause for collisions and compliance.[5] As a result, safety praxis is typically driver-centric, and trucking

[4] The IRS is a concept in Canadian OHS legislation where all individuals involved in work have specific responsibilities to ensure positive overall workplace health and safety outcomes (Dyck, 2020, 67-69; Canadian Centre for Occupational Health and Safety, 2022). The IRS means that each person involved with work on a worksite is somehow responsible, in a way that is appropriate for their role, for the health and safety of themselves and others. Under an IRS, simply being a low-ranking worker does not excuse the individual from complying with their OHS-related responsibilities. However, the employer (management) bears the greatest responsibility for positive safety outcomes and is seen as the area of the organisation most to blame for worker-level incidents.

[5] OHS legislation in Canada is built on the IRS whereas National Safety Code (NSC), or on-road safety legislation, is not. While both types of legislation are specific to safety, this difference plays a huge role in how workplace incidents are prosecuted. Here are two examples to highlight this difference in prosecution:

Trucking Example:

On April 6th, 2018, an Alberta commercial truck driver was responsible for a high-casualty collision near Humboldt, SK (the infamous Humboldt Broncos bus crash) where sixteen people were killed. The driver of the truck survived and was ultimately sentenced to eight years in prison to then be followed by deportation to India, his home country (Taylor, 2021). The owner of Adesh Deol Trucking (the trucking company) was issued $5,000 in fines (Graveland,

companies have greater incentive to place blame on drivers for on-road collisions and have less incentive to address deficiencies in their management than employers outside of trucking that fall under OHS regulation.

Since transportation-specific safety legislation under Canada's National Safety Code (NSC) is legally separate from OHS-specific legislation and trucking companies have a tradition of focusing on their on-road safety performance, I have observed that trucking companies often either segregate their OHS and NSC safety programs or only have an NSC safety program and do not address OHS at all. OHS legislation requires employers to identify and control hazards and would, by default, require the employer to consider the on-road driving duties of a trucker. Transportation-specific legislation does not require an employer to identify hazards and instead outlines a more prescriptive approach to safety that assumes the legislation itself contains the practices necessary to ensure safe workplaces and safe roadways. As a result, an OHS-driven safety program includes practices such as entire-company analysis to identify and control hazards whereas NSC-driven safety programs focus mostly on maintaining compliance with legislation, thereby lacking this analysis component.

2019). Management-level safety deficiencies were a root cause in this incident (lack of adequate driver training and monitoring; noncompliance with safety legislation).

Non-Trucking Example:

On November 26th, 2017, a worker was killed on a worksite when a concrete slab being unloaded from a gantry crane tipped over, crushing the worker (Government of Alberta, 2020). Lafarge Canada Ltd. (the employer in charge of work at the worksite) was found guilty as the loading rack the slabs were on was not properly cleared of snow and ice. Lafarge (the employer/management) was charged $320,000 to be paid to a safety association to develop training to prevent future, similar incidents. No other workers/supervisor directly on the scene were convicted. Despite frontline workers making mistakes that resulted in the fatality, it was management that was prosecuted due to management deficiencies being identified as root incident causes.

Main Research Question

How do trucking safety professionals and the safety systems they oversee take steps to address worker inequities that may impact individual safety outcomes?

Research Sub-Questions

The following additional research questions further explores how equity is considered by trucking safety professionals and their safety systems in a trucking company's operations:

1. How do trucking safety systems accommodate diverse individuals who may struggle to comply with and participate in the system?
2. How might diversity amongst truck drivers and other workers impact their ability to participate in and receive protection from a trucking safety system?
3. Do employers feel responsible for accommodating individual worker differences?
4. What barriers do trucking safety professionals feel they face in the fulfillment of their duties?
5. What barriers to do trucking safety professionals feel drivers and other trucking company workers face in the successful participation in the safety system?

Objectives

Besides fulfilling requirements for the graduate program, it is anticipated this research will produce insights into the structure and efficacy of occupational health and safety management systems (OHSMSs) in Alberta's trucking industry by assessing how, if at all, these OHSMSs consider equity as a means of bringing about desirable safety outcomes.

This research centres around the role of a trucking company's safety manager, referred to as a "trucking safety professional", and employs a qualitative methodology. As a result, this

research is also anticipated to produce a more holistic image of this role in the trucking industry, how it is related to safety outcomes, and how it may be improved for the benefit of trucking industry workers and other public roadway users.

Significance

The trucking industry is a major employer in Alberta and beyond, and the activities of the industry are of critical importance for the economy. It is also an industry where shortages of drivers are commonly reported as a major economic problem by industry associations (Canadian Trucking Alliance, 2022; Groves, 2021; Splinter, 2021), although one could argue there is not so much a shortage of drivers as there is a shortage of good jobs or shortage of companies able to hire inexperienced drivers. As a result, the trucking industry is a major industry struggling with sustainability.

My study specifically examined OHSMSs within trucking companies in Alberta. Insights gained from my work may be useful for understanding deeper reasons industry safety deficiencies exist, deficiencies that may contribute to the labour challenges. Additionally, the qualitative results from my research may be useful in identifying areas for further, more targeted research (both qualitative and quantitative) that can be performed by industry associations interested in improving the industry's workforce sustainability.

CHAPTER II - LITERATURE REVIEW

I started my literature review by reviewing books, articles, and other publications already familiar to me from my work as a safety professional, undergraduate and graduate courses, and work in the trucking industry. I then reviewed peer-reviewed literature on equity, intersectionality, occupational health and safety management, and trucking safety and labour in Google Scholar and the University of Lethbridge (U of L) online library.[6]

I have organised both my literature search and review into three categories: 1) historical and social factors in trucking safety, 2) safety studies in occupational health and safety (OHS) and trucking, 3) occupational health and safety management system (OHSMS) structure and efficacy, and 4) relevant topics related to equity in organizational systems.

Historical and Social Factors in Trucking Safety and OHS

The trucking industry in Alberta and throughout North America has been studied and described by scholars from a variety of backgrounds and disciplines. Critical historical analyses have examined the chain of events, from the inception of the long haul industry in the 1930s, the unionized trucking environment of the mid-1900s, the regulatory exemptions given to agricultural trucking companies, and the rise of blurred contractor-employee relationships with carriers that lead to the current state of the industry (Balay, 2018; Belzer, 2000; Hamilton, 2008; Viscelli, 2016). These examinations of trucking's history generally converge in their description of North

[6] I used Google Scholar as my primary search engine to identify relevant sources. I used my U of L login to access these sources or search the U of L's library directly online. For this preliminary literature review, the following search phrases were used: "occupational health and safety systems trucking", "safety perception trucking", "safety perception occupational health and safety", "labour equity trucking", "equity occupational health and safety", "labour equity safety", "intersectional trucking", "intersectional occupational health and safety", "occupational health and safety theory", "occupational health and safety model", "occupational health and safety management structure", "equity intersectionality trucking safety", "safety climate trucking industry", "equity and equality spectrum", "equity equality organizational", "personal professional", "personal in the workplace", and "equity versus equality".

American trucking in the mid- to late-20th century, and they cite the economic deregulation of the trucking industry in the USA and, to a lesser extent, Canada as a catalyst for the decline in pay, prestige, working conditions, and safety in trucking since the early 1980s.

Biographical and autobiographical work from people working in the trucking industry have provided the perspective of company owners and managers (Mohr, 2015; Rubak, 2003) and truckers themselves (Murphy, 2018; Ouellet, 1994). With the exception of Ouellet (1994), the biographical works I reviewed generally are not being written for the purpose of performing critical research on the trucking industry but are instead recordings of stories and experiences done for the purpose of preserving history. However, the authors of these stories still present their criticisms of the parts of the industry they saw. Murphy (2018, 102-107), describing his experiences as a young owner-operator in the furniture moving business, tells the story of how he once suddenly quit and took a long break from the trucking industry due to repeated frustrations and broken promises resulting from mismanagement and risk transfer to him by his carrier.

Mohr's (2015)work is an autobiography describing his experiences starting, running, and finally selling the Alberta-based carrier VLR. VLR was a propane hauling company founded on the tail end of economic regulation in Canada's trucking industry and, as a result, grew during a time when carriers were adjusting to the increased competition resulting from reduced regulatory barriers for new entrants. The company was bolstered, somewhat luckily, by servicing the then-booming Alberta oil and gas industry. His descriptions of competition, labour issues generally solved through staffing agencies and the use of lease operators, and the eventual sale of VLR to a large and growing company as a retirement strategy provide a first-hand account of carrier management practices that lead to working conditions seen in the industry today. Mohr's (2015, 50) narratives also provide a first-hand account of how senior management and safety

management, when merged, produce results not aligned with ideal OHSMS implementation as taught in current OHS programs and idealised in OHS theory.

Rubak (2015), in his oral history work on Alberta's early trucking industry, recorded the stories of many trucking company founders in Alberta. His interviews mostly took place in the 1980s and he was able to talk to individuals who started many of the first trucking companies in the province in the 1920s and 1930s. A major theme seen in the stories of first-generation trucking company founders include an entrepreneurialness that, while romanticised by Rubak (2015, Part One) and many in the industry today, included significant avoidance of trucking safety and compliance regulations and the embracing of neoliberal ideals. Examples of impactful collective action was seen through the Alberta Motor Transport Association (founded in 1938), mostly a lobbying group in its early years focused on expanding weights and dimensions regulations to grow trucking capacity (2015, 365-386).

Rubak (2015, 19-21) presents a brief history of transportation in Alberta that is presented in the context of the Western settlement that gained significant momentum in the mid-1800s. Trucks were considered new technology in the 1920s, but there was nothing new about the colonisation-based transportation system. Gender is discussed in greater detail by Rubak. Most of the stories of early trucking company founders include descriptions of the founder(s) personal life, and it is common to see that the male founders' wives played significant administrative roles in these carriers (2015, Part One). These stories align with autobiographical descriptions of those working as truckers (Murphy, 2018) and of those holding positions of influence at carriers (Mohr, 2105). In short, the men trucked and the women administrated while looking after children and home. As these carriers competed for freight, it likely made economic sense to use the unpaid sources of labour at home to lower company overhead but, given how women rarely operated the

trucks themselves and did not typically draw wages, their automobility was limited to the confines of their marriage. While similar dynamics exist today, the marginalisation of women in trucking's early days have been exacerbated by the limited options and supports for non-married women seen in Canada at the time, a dynamic described by McCallum's (1986) work on women's experiences of minimum wage in Canada in the early 1900s.

Mobility and automobility are topics that have been explored in the context of labour and the trucking industry. Bonifacio (2009) describes grassroot feminist activism in Filipino migrant worker communities in Australia and the role these movements play in transnational labour migration. Balay's (2018) work on gender and sexuality in America's trucking industry presents examples of grassroot activism taking place in trucking today, but due to the isolating and transient nature of the profession, community-based activism rooted in particular locations struggles to take hold. However, the use of social media and increasing numbers of women and members of the gay and trans community in trucking has managed to produce forms of activism and community that embrace automobility, truck-based homelessness, and even isolation which offers diverse presentation and support to marginalised individuals (Balay, 2018, 105-122).

Direct and intentional examinations of gender and race in trucking have shown how trucking labour practices create a dynamic subculture unique to the profession (Arvin et al., 2013; Balay, 2018; Hanson, 2021; McCallum, 1986; McLean, 2017a; Ouellet, 1994). McLean's (2017a) ethnography of British Columbia-based long haul truckers explores this culture and the perceptions of race and gender from the perspective of mainly white, male truckers. Balay (2018) expands on McLean's work in her descriptions of the racialised experiences of Black truckers in the USA. I have not been able to find similar work that critically examines the experiences of First Nations and South Asian truckers in Canada from their perspective and, given the impacts of colonialism

on a transportation network designed to provide "a better method of transport for the settlers" (Rubak, 2015, 20) and Canada's reliance on the Temporary Foreign Worker Program (TFWP) to fill trucking positions (Canadian Trucking Alliance, 2021; Hanson, 2021; McLean, 2017). Further research in this area is needed to give voices to underrepresented workers.

Ever since Crenshaw (1991) introduced intersectionality to the world as a tool to better understand the impacts of multiple systems of oppression that produces differential realities of identity markers on social experiences, intersectionality has been applied to research in transportation (Agyeman and Doran, 2021) and OHS (Habib et al., 2016; Mousaid et al., 2016). As complex organisational systems cannot necessarily be described through the isolation and dissection of their individual components (Porter and Derry, 2012), intersectionality provides a framework for studying complex systems like OHSMSs and the experiences of those who experience and manage such systems. Business and management disciplines have been criticised for being slow and overly-simplistic adopters of intersectionality (Derry, n.d.). This leads me to see the importance of bringing an intersectional approach to OHSMS and trucking research. In Canada, trucking companies that operate in more than a single provincial jurisdiction are federally-regulated and must follow the OHS legislation outlined in Part II of the *Canada Labour Code* in some or all aspects of their operations. In a study of labour standards violations and enforcement practices in Canada's federally regulated private sector, Vosko et al. (2021) found that precarious employment, particularly amongst small, private trucking companies, demonstrated higher levels of noncompliance with labour regulations. The Vosko study is critical of Canada's current federal OHS compliance enforcement approach because it assumes noncompliance is the result of regulatory ignorance and homogenises federally-regulated private company culture. This overly-

simplistic approach fails to recognise the intersectional politics of social, cultural, racial, gendered, and economic factors that impact the OHSMS practices of trucking companies of different sizes.

Truckers' views on safety have been studied in the context of their identities as professionals (McLean, 2017a), masculinity (Ouellet, 1994), non-heteronormative gender identities (Balay, 2018), and economic pressures (Viscelli, 2016). These views have the potential to permeate the safety culture of a trucking company and, as a result, the way in which a carrier manages their OHSMS. Intersectionality in my research means considering social factors beyond what is typically considered in traditional OHS theory and education. I have reviewed literature on postcolonial and non-heteronormative sovereignty (Arvin et al., 2021; Simpson, 2015), migrant worker status in OHS (Mousaid et al., 2016; Moyce and Schenker, 2018; Premji, 2019), current trucking industry events, such as the freedom convoy protests that took place throughout Canada in 2022 (King, 2022) and the ongoing industry-described truck driver shortage (Groves, 2021), and intersectional feminist approaches to women in trucking (Maphumulo, 2021). What emerges from these readings is the role all these factors potentially play in the application of OHSMS theory to a carrier's operations. Contemporary safety theory seems immature in the context of intersectionality; this is an area where further research is needed to advance OHS theory.

In terms of equity, recent research has called for a fundamental paradigm shift in OHS to examine inequities in traditional approaches to safety (Flynn et al., 2022) and embrace an interdisciplinary approach to improving future safety outcomes (Premji, 2019). Neoliberalism has also been vigorously criticised as a barrier to equality and equitable labour outcomes (Belzer, 2000; McLean, 2017a; Viscelli, 2016). White et al. (2009) describe how interventions that produce overall positive results (such as an industry-wide OHS improvement like reduced collision rates) can increase disparity amongst the groups contributing to the averaged improvement. Building on

White et al. (2009)'s work, Vosko et al.'s (2021) description of Canada's federal OHS enforcement strategies as missing opportunities to help precarious workers in the private trucking industry through an overly-homogenised approach to compliance provides insight into how overall improvements in a federal OHS metric can mask possible worsening of conditions in some workplaces under the federal jurisdiction. Based on my literature review, further intersectional studies on equity in OHS management, especially in trucking, could help dig deeper into causal factors that result in the poor adoption of contemporary OHS theory at some employers and may improve the ability of regulators to target smaller, diverse organisations.

The invisibility of marginalised people has been linked to inequities. Balay (2018) describes how the unique challenges faced by transgendered truck drivers are not adequatley addressed by the trucking industry partially as the result of this group's reluctance to take part in many visible aspects of the trucking industry out of fear for personal safety. In a collaborative project aimed at improving safety outcomes for Mexican migrant workers in the USA, the Mexican government and the National Institute of Occupational Safety and Health (NIOSH) examined alternate ways of delivering important OHS information to migrant workers (Flynn et al., 2021). This NIOSH project accepted that a worker's invisibility was likely to increase their risk of occupational injury and illness. This is because mainstream OHS practices were not designed with underrepresented worker needs in mind. NIOSH's project was a move away from an assumed objectivity on the part of management where management assumes their approach to safety will be suitable for all individuals, which, for NIOSH, is perhaps an acceptance of partiality in line with Haraway's (1998) theoretical feminist criticism of Western objectivity. This work suggests a need for OHSMSs to be willing to adapt to different perspectives and cultures to improve safety outcomes instead of blaming individuals for the inability of the OHSMS to protect them. This is

a fundamental shift away from Western classical management approaches that employ simplistic economic models for why workers do what they do (Dyck, 2020, 28) and worker-focused blame-based approaches to accident causation. These systems are no longer accepted in contemporary safety theory (Bird et al., vii-xii). Unfortunately, such worker blame-based safety systems still persist in the trucking industry due in part to the neoliberal embracing of contractor-based labour systems in today's North American trucking industry. These contractor-based systems create organisational dynamics where individual workers (lease operators and dependent owner operators) are held responsible for most, if not all, aspects of their working conditions. This relieves upper carrier management of this responsibility yet does not effectively give more control to drivers over their working conditions than if they were employees[7] (Viscelli, 2016, 105-139). As I have previously described in the Safety Theoretical Framework section in the Introduction, Alberta's trucking industry is regulated in a way that places greater blame on individual drivers than it does the employer, thus there are even regulatory barriers to implementing OHSMSs in a way that supports the approach taken by Flynn et al. (2021). Further research on trucking labour inequities in the context of OHSMSs is needed to further improve the ability of a safety system in improving safety for underrepresented groups.

[7] A contract lease or owner operator truck driver may have considerably less personal freedom than a company driver. While trucking in Canada is exempt from many labour regulations, company drivers still benefit from basic job protections and are free to move between employers as long as they remain employable. Lease and owner operators, however, are tied to a piece of equipment (i.e. their truck) which limits their ability to move between carriers. It is also common for lease operators to incur maintenance- and repair-related debt with their carriers, resulting in an additional shackle to a single company. Ironically, lease operator deals are typically marketed as putting the trucker in greater control over their working conditions and pay; they appeal to the North American idolisation of being an entrepreneur and working for oneself. But, most lease operators have as much ability to become independent business people as would a salesperson in a multi-level marketing scheme.

Safety Studies in Trucking and OHS

I reviewed literature that describes the actual implementation of safety programs at trucking companies. Mohr (2015, 50) describes ways in which senior management, which was merged with safety management at the carrier in question, handled safety-related incidents by largely focusing on driver behaviour. Rubak's historical work on Alberta's trucking industry provides many examples of safety practices at trucking companies in Alberta (2003). Hamilton (2008), McLean (2017a), Viscelli (2016), Balay (2018), Ouellet (1994), Belzer (2000), Murphy (2018), and my own experiences in the trucking industry all provide different narratives of carrier safety management practices.

The link between safety and economics has been explored by various researchers (Belzer, 2000; Faulkiner and Belzer, 2019; Pouliakas and Theodossiou, 2013; Viscelli, 2016). Faulkiner and Belzer (2019) conducted a study with a large American carrier where driver pay in a controlled driver group was increased and productivity, retention, and safety (i.e. crash probability) were monitored. They found retention improved amongst the higher-paid drivers, and as these drivers became more experienced at the carrier, their crash probability decreased. Their finsing supports regulator establishment of safe rates in trucking. Belzer's work *Sweatshops on Wheels* (2000) analyses the impacts of economic deregulation in the American trucking industry and resulting increases in competition and neoliberalism. His findings show how trucking working conditions related to pay, stability, and safety have suffered since deregulation has increased intercarrier competition. Viscelli (2016), in his study of the American trucking industry's contractor labour model and carrier-operated commercial driver training programs, describes the industry from a sociological perspective and qualitatively shows how modern neoliberalism in American trucking produces undesirable working conditions for truckers. Not specific to trucking but staying within

the area of OHS and economics, Pouliakas and Theodossiou (2013) performed a policy and theory review of safety economics. They present evidence for why larger employers tend to perform better in terms of OHS, and predict employer concerns over high mandatory workers' compensation costs and worker concerns over seemingly low claim payouts are behind a North American push away from mandatory insurance systems and back to civil litigation in the aftermath of OHS incidents. This is an interesting and ironic prediction given that mandatory workers' compensation insurance schemes were implemented over a century ago to address inefficiencies and dissatisfactions with civil litigation as the then-only system for worker compensation from employer-related incidents (Dyck, 2020, 18-19).

Research into workplace safety frequently uses methodology centred around safety perceptions (Anderson et al., 2017; Arboleda et al., 2003; Granzow and Theberge, 2009; Huang et al., 2014; Mooren et al., 2014; Reiman and Väyrynen, 2020). This area of research is closer to my study. Perception studies through the use of surveys and interviews are common ways in which organisations measure social issues, and while safety can be measured through different metrics like injury rates and collision probabilities, perceptions safety culture are linked to measurable safety outcomes insomuch as organisations where supervisors and workers do not believe management values safety are less likely to see positive safety behaviour from these individuals (Huang et al., 2013; Huang et al., 2014; Lee et al., 2019; Ouellet, 1994).

While safety studies often employ individual perceptions as a tool to measure OHSMS efficacy, researchers have identified areas where more work is needed. Reiman and Väyrynen (2020) specifically identify trucker wellbeing as an element being ignored in the consideration of new modes of transportation, and while the trucking industry is focused on increasing efficiency,

job hazards faced by truckers are not receiving the attention needed to improve driver health outcomes.

Fan et al. (2020) performed a comprehensive literature review of OHS research from 1956 to 2019 for the purpose of identifying future avenues for research and current gaps in our understanding of OHS. Their review reaffirms my basic safety theoretical framework described in Chapter I, and goes on to present pathways for future researchers interested in OHS research. Of particular relevance to my research, they note that 1) there is opportunity for qualitative researchers in OHS to explore depth and meaning in the largely correlational field of OHS research, 2) OHS is weak on theoretical rigour, 3) OHS lacks adequate attention to psychosocial hazards, and 4) that interdisciplinary work is lacking. My intersectional, equity-focused, interdisciplinary approach to the perceptions of safety professionals is the type of research they claim is both lacking and needed to advance the field of OHS.

Critiques of Trucking Safety Management and Structure

Safety management and structure at small- and medium-sized employers (SMEs) has been described as an area requiring specific attention in future OHS research (Fan et al., 2020). Limitations faced by SMEs in the context of OHS performance have been identified, from relative financial resource deficiencies to a lack of SME-specific measurement and management tools (Kaassis and Badri, 2018). Researchers in this area have recently attempted to address SME OHSMS performance through the creation of new management and measurement models (Kaassis and Badri, 2018) and by drawing attention to non-traditional hazard types (i.e. psychosocial as opposed to physical) starting to emerge in modern, technologically-reliant workplaces (Niciejewska and Kiriliuk, 2020). White et al. (2009) and Vosko et al. (2021) have addressed the inequities in SME safety performance when compared to larger organisations. Vosko et al.

specifically identify small, private trucking employers under Canadian federal regulation as workplaces being underserved by the current enforcement system in place by the Government of Canada.

With intersectionality emerging as a consideration in recent OHS research (Habib et al., 2016; Mousaid et al., 2016), organisational complexity is an area where potential additional work is needed in the context of OHSMSs. In an examination of transnational and grassroots feminist movement collaborations, Basu (2000) suggests feminist movements with increasing bureaucracy tend to focus on high-order concerns and become detached from front-line concerns. While not specific to OHS, as safety systems grow in complexity to address modern operational requirements, her work suggests that an increase in focus on higher-order concerns could result in a reduction in action at the lowest level of the organisation. Murphy et al. (2018) have criticised a reductionist approach to OHSMS analysis and claim a systems perspective method does a better job identifying carrier-specific factors to predict safety performance in complex trucking safety systems. Since root cause-focused safety controls such as hazard elimination through enhanced route planning and hazard engineering through improved vehicle design have addressed many safety concerns in the trucking industry, answers needed to further improve SME and large carrier safety performance may lie at the intersections of individual and carrier identities that have not yet been considered in the context of OHSMS administration.

Scholars have been critical of the trucking industry's heavy use of driver blame as a root cause in poor safety performance (Balay, 2018; McLean, 2016; Viscelli, 2016). Exploitative contracting agreements designed to defer liability and risk to individual lease and owner operators are well-documented in trucking (Balay, 2018; Viscelli, 2016). Even trucking employer representatives advocate for increased enforcement of employee misclassification of drivers that

results in tax evasion for other employers (Canadian Trucking Alliance, 2020). Business models that place greater risk on individual workers, especially where the risk relates to safety as well as finances, are not aligned with the safety theoretical framework I identified in Chapter I. Although this framework is not guaranteed to produce positive safety outcomes at all organisations, it is generally considered best practice in Alberta's trucking industry. Exploitative business practices undermine this framework because they produce an internal conflict of interest between safety and operations. This is a particularly interesting area for my research to explore from the perspective of Alberta-based safety professionals.

Safety scholars have identified numerous areas where additional research is needed to address criticisms in present-day trucking safety systems. Fan et al. (2020) argue that qualitative research is needed to dig into correlations found in past safety studies. From a policy and regulator perspective, Knipling (2009, 218), in his criticism of using hours of service regulations to control for driver fatigue, says a "general problem with prescriptive work rules of all types is that they require rote compliance instead of intelligent self-management" where, in context, self refers to the carrier. This is a concern echoed by Balay (2018) in her criticism of the current overly-regulated (from a safety and labour perspective) yet inadequate safety compliance system in place by regulators in North America. These criticisms are relevant to Alberta's trucking industry where the regulatory framework is one where truck drivers are likely to face far more direct negative consequences from law enforcement than workers in other industries and before their own carrier's management receives such attention. Vosko et al. (2021) present opportunities for policy improvements aimed at producing better OHS outcomes for workers in private trucking SMEs aimed at policymakers, improvements that could potentially address concerns related to driver-focused blame practices. Researchers have also begun the process of applying critical theories to

workplaces (Ford and Airhihenbuwa, 2010). My study is well-positioned to address these areas and identified needs.

Equity in Organizational Systems

Canada is an interesting country in terms of equity in the workplace. The federal government governs about 10% of Canadian employees and, of this, about 16% are in the road transportation industry which includes trucking operations that cross provincial and international borders (Government of Canada, 2023). The rest of Canadian employees work in provincially regulated workplaces, meaning the province in which their workplace is located is the province that regulates them. This means federally regulated workplaces must follow the occupational health and safety (OHS) legislation of Canada's federal government while provincially regulated workplaces follow the OHS legislation drafted by their respective provinces. This is the same for employment legislation, such as the rules that govern holidays, minimum wage, sick time, and other regulations corporate management and human resources professionals must navigate.

Canada's *Employment Equity Act* (Government of Canada, 1995) is of particular interest to my project and is also a piece of federal legislation that has no provincial equivalent in Alberta. Alberta does have human rights legislation in the form of the *Alberta Human Rights Act* (Province of Alberta, 2000) which prevents employment-related discrimination on the basis of specific protected grounds, including gender expression, race, and religious beliefs (2000, section 3(1)(b)). However, other than not being allowed to discriminate on the basis of a person's protected ground(s), provincial employers in Alberta do not have legislation requiring them to practice equity the same way federally regulated employers do under the *Employment Equity Act*, an act that supplements the federal human rights equivalency or the *Canadian Human Rights Act* (Government of Canada, 1985).

Based on the *Employment Equity Act* for federally regulated companies that does not have a provincial equivalent in Alberta, trucking companies in Alberta are divided in terms of regulator-imposed employment equity, with federal employers having compliance obligations for equity practices that provincial employers do not share. However, the real-world effects of this regulatory difference is debatable. In an examination of employment equity in Canada roughly thiry years after the introduction of the *Employment Equity Act*, Agócs (2014, 870-871) presents the lack of enforcement mechanisms and serious penalties under the Act as a major criticism of Canada's employment equity legislation. This criticism aligns with that of Vosko et al. (2021) who further criticise the enforcement and compliance model of Canada's federal government, and its ability to protect precarious workers in small, federally regulated trucking companies.

Some of the most prescriptive and strongest legislation related to equity in Canada has to do with pay equality between men and women. Canada's *Pay Equity Act* and *Pay Equity Regulations* (with the regulations having come into effect in 2021) demand that all federally regulated employers with ten or more employees evaluate their compensation system for the purpose of ensuring equality between mainly female-dominated and male-dominated job categories (Government of Canada, 2023a), along with a requirement to report on their pay system equity. This is a logical area of focus for gender equity measures since the pay gap between men and women is a longstanding issue that feminist scholars and activists have defined and work to address.

Social equity theory has been traced back at least as far as the eleventh century when St. Anselm of Canterbury proposed that people have two competing affinities which are, first, an affinity for one's own advantage over others and, second, an affinity for justice for themselves and their broader society (Hatfield et al., 2011). Hatfield at al. (2011) describe these affinities as a

balance between personal interest and social justice. While I have presented the Canadian federal government's approach to equity in the workplace as centred on pay, justice and personal interest need not be limited to compensation. Any form of resource access can be viewed through the lens of social equity theory. Of particular interest and relevance to my study, the National Institute for Occupational Safety and Health (NIOSH), a department of the Centers for Disease Control and Prevention (CDC) in the US, concerns itself with research related to improving occupational health and safety in American workplaces. It has taken an equity approach to occupational health and, from their website, acknowledge that:

> Not all workers have the same risk of experiencing a work-related health problem, even when they have the same job. Occupational health inequities are avoidable differences in work-related disease incidence, mental illness, or morbidity and mortality that are closely linked with social, economic, and/or environmental disadvantage such as work arrangements (e.g. contingent work), socio-demographic characteristics (e.g. age, sex, race, and class), and organizational factors (e.g. business size). The Occupational Health Equity program promotes research, outreach, and prevention activities that reduce health inequalities for workers who are at higher risk for occupational injury and illness as a result of social and economic structures historically linked to discrimination or exclusion. (NIOSH, 2019, first paragraph)

The NIOSH assertion flies in the face of neoliberalist notions of employer's rightful power over workers as it requires tailoring approaches to workplace safety to individual worker differences, empowering workers in the process (at least from a safety perspective). This is like

the Canadian federal government requiring certain employers to create pay equity systems; the power-over stance enjoyed by employers is challenged by such equity-based approaches from regulators. Although NIOSH, I should note, is not a regulator but instead an informer to the US' regulator of OHS, the Occupational Safety and Health Administration (OSHA). This trend towards equity specifically in OHS in the US shows the importance of engaging in such discourse in Canada and in identifying ways to adapt OHSMSs to workers in a move away from the more traditional approach of attempting to make workers fit into an existing system that is unlikely to be regularly monitored.

Organizations themselves have experimented with and reported on their experiences with equity-based changes to their operations and culture. In one example, farmers in the Navajo Nation in the Southwestern US saw positive increases in safety leading indicators (in an addition to crop yield increases) after participating in a program where model farms were used to educate other farmers (Helitzer et al., 2014). The purpose of this model farm program was to use pre-existing and well-established farmers in the Navajo Nation that were trusted by other farmers as opposed to having an organization like NIOSH provide the training. This approach recognized the cultural preferences of Navajo Nation members to learn from their trusted community members, and the program yielded positive safety results related to the safe handling and application of pesticides. Similar approaches to serve poorly performing, from a safety outcomes perspective, groups has seen success, such as in Flynn et al.'s (2021) analysis of using the Mexican consular network in the US to provide OHS information to traditionally hard to reach workers. Flynn et al. (2022), in a separate publication, comments that, while significant OHS improvements have been made in North America over the last 50 years, a more holistic and equitable approach to safety is needed to realize the next significant gains.

Equity-based practices have been discussed in other cases, such as identifying ways interdisciplinary public projects can both serve a community's transportation needs while enabling safer access to transportation for underserved people. For example, Agyeman and Doran's (2021) intersectional approach identify synergies between protected bike lanes and protecting the safety of Black children. Social equity theory itself has been presented as a human resource management tool for organizational effectiveness (Al-Zawahreh and al-Madi, 2012; Osabiya, 2015), which demonstrates the inculcation of social justice values to management practices in Western economies. Scholarly work has provided details on the barriers that workers experience differently based on their unique identities that contemporary managers and organizational leaders can use to bring equity into their organizations. This can assist as a strategy for achieving greater equality between historically disparately performing groups. Balay's (2018) presentation of the unique challenges faced by queer individuals working as long-haul truckers in North America provides information on the barriers to workplace safety, from psychosocial context, gender-diverse individuals may experience. Maphumulo's (2021) exploration of gender barriers faced by women truckers in South Africa provides information that can be applied both within South Africa and beyond to assist carrier management in analysing their own organizations to systematically reduce hazards specifically facing women. Williams et al. (2017) present psychosocial hazards facing drivers, which could directly be used to inform OHS hazard assessment processes. Government institutions are also resources, as in the case of Baynton and Fournier's (2017) historical documentation of the evolution of the recognition of psychosocial hazards as valid OHS concerns in Canadian workplaces. Additionally, while these recent works give the impression that equity as an organizational tool is a new topic for management consideration, we know equity-based practices have been successfully employed in the past to elevate disadvantaged groups, such as

feminist-fueled transformations in labour regulations that assist women in patriarchal societies like parental leave. According to Cobble (2005):

> [...] there was no equality without a transformation in the work patterns, norms, and practices of the work work world itself. They did not want to move women into a square designed for men.
>
> (36)

Cobble's statement shows that there is a history of using equity to serve certain groups of people in Western organizations. Much of the work on equity in this area has focused on pay and the ability for parents to keep up with their childless colleagues, but work on equity in safety performance is an emerging field that is beginning to garner the attention of scholars and regulators alike. There are gaps in the literature t on equity in trucking in a way that specifically uses the narrative of safety professionals, or the key stakeholders in organizational safety performance. My study fills this gap.

The Personal is Professional

The phrase "The Personal is Political" is attributed to an essay by Carol Hanisch (1969). This classic feminist slogan asserts that matters that concern someone's personal life is still politically relevant and, therefore, worthy of public discourse and political action. I applied Hanisch's work in the introduction of Chapter VIII for the presentation of the fourth theme. I have titled theme 4 "The Personal is Professional" as a way of paying homage to earlier scholars who have worked to elevate personal matters to public discourse. My presentation of the personal lives of workers as being professionally relevant is similar in use to Hanisch's use of "The Personal is Political".

The idea that factors in a person's personal life will affect their professional life is neither new or lacking in terms of public awareness. Debates around sick time, vacation time, the struggles of managing parenthood and a career, and the balancing of work and life are all examples of personal issues. Contemporary OHS research has examined how personal attributes affect safety performance in different work settings. Personal attributes such as age (Varianou-Mikellidou et al., 2020), gender (Shuang et al., 2019; Sjöber Forssberg et al., 2022), the ability of an employee to straddle work and family demands (Zhang and Bowen, 2021), and a person's culture and ethnicity (Flynn et al., 2021) have all been the subject of inquiry by safety researchers in an attempt to better understand how the personal circumstances of a worker affect the safety performance of individuals and organizations. While earlier, and foundational, work in the OHS profession has largely focused on the establishment of loss control systems in an effort to control incidents in the workplace (Bird et al., 2014; Dyck, 2020), researchers are increasingly interested in examining the diversity amongst individuals as a way to further bolster safety performance.

Despite the work being done to understand how individual factors affect safety performance, the work of safety professionals in many industries is still largely focused on creating standardized systems that act to maintain compliance with regulations and create broad safety policies and procedures meant to be applied equally across a company's workforce. An example of such a standardized system is the Alberta Partnerships in Injury Reduction Certificate of Recognition (COR) program. To obtain a COR, companies must work with an organization like the Alberta Motor Transport Association (AMTA) to build an OHSMS in the style of the COR program. While common, CORs represent a significant effort on the part of an employer to put into place and to maintain. The work of safety professionals at companies with a COR is often spent mostly on the upkeep of the COR. Standard OHSMSs like a COR are valuable because they

put reliable safety controls into place, and they alleviate the challenges in designing a program from scratch. Furthermore, companies in Alberta with a COR have been shown to have lower injury rates when compared to those without (McLeod et al., 2018). I am a COR auditor, certified through the AMTA, and knowledgeable about the requirements of the program. While I believe in its efficacy, I do not see much evidence that the learning from research described earlier on personal factors and their affects on safety has been applied to the COR program or other, similar systems. This is understandable, considering the complexities involved in operationalizing research on a topic as complicated as the effects of personal circumstances on safety performance, especially since the consideration of widespread psychosocial hazards as a fundamental part of OHS was only added to Alberta's OHS legislation and the Canadian federal OHS legislation in 2017 and 2019, respectively (Canadian Legal Information Institute, 2023 and 2023a). My study aims to help bridge this gap by further exploring the effects of a person's personal circumstances on their safety performance at the level of the safety professional, the same individual mostly likely to be directly responsible for a company's COR or other form of OHSMS.

Equity and Equality as a Spectrum

In Chapter IX, my presentation of my fifth theme, I present equity and equality as a spectrum as opposed to a dichotomy with the intention of demonstrating how conceptualizing the two terms in this way is beneficial. I came to this realization during my thematic analysis of my dataset. The purpose of this section of the literature review is to document other examples of individuals who have similarly explored equity and equality and to situate my findings in the broader scholarship.

Anderson (1999) describes her theory of democratic equality in a way that blends equality and equity, attempting to plot the ideal society somewhere on a spectrum between the two. For

example, Anderson writes that democratic equality "avoids bankruptcy at the hands of the imprudent by limiting the range of goods provided collectively and expecting individuals to take personal responsibility for the other goods in their possession" (1999, 289). This model of equality is a description of a capitalistic welfare state without legislated inequality between individuals of different backgrounds. In this model, society provides a minimum amount of resources to all individuals to ensure equal access to opportunities and personal security while expecting individuals to take personal responsibility for further elevating themselves. To do this, Anderson argues that societies need to remove barriers that limit the ability of individuals to elevate themselves. Similarly, Roemer (1998) argues that society needs to provide not only equal opportunities to people to advance themselves but also provide a basic level of resources to enable their participation in society.

More recently, Bohnet (2016) has argued that organizational systems can be designed specifically for the purpose of promoting gender equality. This is an application of the concept of gender mainstreaming, the idea that policy should be designed in a way that actively seeks to eliminate inequality between men and women (United Nations, n.d.). Feminist standpoint research "is committed to the production of information women want and need in their struggles to survive and to flourish" (Harding, 2009, 324). It is motivated by a desire for social change aimed at bringing about gender equality, and is foundational in modern applications of gender mainstreaming. Gender mainstreaming is an inherently equity-based activity, one that attempts to bring about gender equality through designing systems and policies in such a way that the barriers experienced by women are specifically addressed as opposed to assuming men and women have the same abilities to thrive in a patriarchal system.

Rawls (1971) argues that society should be designed in such a way that freedom is maximized but only in a way that the freedom of any one person does not infringe on the freedom of others. Rawls also presents inequality as a problem when it creates barriers to the access of power, and advocates for the distribution of resources in such a way that still protects those who have the least. This model represents a blending of equity and equality. The maximization of freedom without infringing on others is equality: everyone should be free. Rawls ideas on inequality, however, and the distribution of resources represents an equity-based approach because it recognizes the power inherent in wealth and the necessary steps needed to combat the accumulation of power through the acquisition of wealth so that powerful positions, such as political office, are not out of reach for those of more limited means.

In discussions on complex ideals of equality, Walzer (1983) describes equality in terms of power:

> The aim of political egalitarianism is a society free from domination. This is the lively hope named by the word *equality*: no more bowing and scraping, fawning and toadying; no more dearful trembling; no more high-and-mightiness; no more masters, no more slaves. (Walzer, 1983, xiii)

The averaging of the differences between people is not the ideal form of equality for which Walzer argues. Instead, Walzer presents barriers to equality not as there being people with more power than others but, instead, as what people with more power *do* to people with less power. To bring about a domination-free society, Walzer argues it is necessary to distribute resources in a targeted manner to account for the differences in people that are inherently disadvantaged by any given system.

While I could not find a description of an equity-equality spectrum in any of the above sources or anywhere else similar to how I will present one in Chapter IX, it seems that scholars hint at the practicality of such a spectrum in conceptualizing ideal ways to distribute resources and remove barriers to inclusivity. My study, while in the context of OHS and the experiences of individuals within safety systems, builds on these ideas by presenting the utility of viewing equity and equality as a spectrum, not a dichotomy.

CHAPTER III - METHODOLOGY

This section contains the details about the study design, methodology, participant information and ethics, and how I moved from the collection of data to analysis.

Research Design Overview

I have chosen to perform critical qualitative research using reflexive thematic analysis in the style of Braun and Clarke (2022) where my own subjectivities as a research and trucking industry insider can be fully engaged in the meaning-making process. Therefore, my research project began prior to the start of my Master of Arts (MA) program when I originally decided to return to academia for the purpose of exploring meaning in the world of Alberta-based long-haul trucking. My experiences as a trucker and safety professional are the foundation from which I explore Alberta's trucking industry, and my own experiences and exploration of safety and critical theories helped me form my research questions in conjunction with guidance from my supervisory committee.

My study design consists of conducting interviews with trucking safety professionals working in Alberta and then analyzing the transcripts of these interviews using reflexive thematic analysis. I also performed an autoethnography of some of my experiences as a trucker as part of an independent study with Dr. Jason Laurendeau, professor in sociology, and draw from this work as appropriate in the exploration of my themes.

My primary means of gathering data was from interviewing trucking safety professionals from Alberta trucking companies. These interviews were qualitative with semi-structured questions intended to dig deep into the specialised knowledge the participants have about their industry and profession. As a result, the questions found in the interview guide were not

necessarily read verbatim as tangents and adaptation were valuable to allow the narrative to develop. Prior to each interview, a questionnaire was given to the interviewees. The purpose of the questionnaire was to gather non-demographic information about the interviewee's professional experience and save time during the interview. The questionnaire questions were more direct than those in the interview.

Ethics

Prior to any work with human participants, an ethics review was completed through the University of Alberta's ARISE ethics system (the University of Lethbridge contracts this service to the University of Alberta). Several measures were taken to minimize any potential risk to the participants. First, originally included demographic questions were removed from the interview script as it was decided there was no need to collect the personal information in those questions. Second, this research project treated the participants anonymously by removing names and identifying details from the interview transcripts and in all subsequent data analysis. Third, informed consent was provided to the participants during the initial recruitment, in writing prior to scheduling the interview and sending the questionnaire, and verbally at the start of the interview. Fourth, the data are stored digitally in password-protected, multi-factor authenticated locations to which only I have access (my personal Google Drive and my University of Lethbridge Microsoft OneDrive accounts). Any paper-based data was destroyed immediately upon being uploaded to a computer. All digital data will be kept for a minimum of five years; however, all digital data that contains any identifiers of individuals was deleted as soon as the questionnaires and interview transcripts were created and anonymized.

Participant Inclusion and Solicitation

There were three inclusion criteria for the interview participants. First, participants must have been either active or recently active (i.e., within the past three years) as a safety professional at a for-profit Alberta-based trucking company; they could also have been a consultant serving this role at one or more companies. Second, they needed to self-identify as a trucking safety professional (or coordinator, administrator, safety officer, or other similar job title) in charge of their employer's (or client's, in the case of a contractor) occupational health and safety management system (OHSMS). Third, they needed some verifiable level of OHSMS knowledge; this could be formal OHS education, transportation-specific safety education, a professional designation, or on the job mentorship provided by someone with such OHSMS knowledge. These criteria ensured safety was primary, not auxiliary, to the participants professional role.

I identified potential participants by using their publicly-available profiles on LinkedIn, a professional networking social media platform where many Alberta-based trucking safety professionals self-identify and self-promote. Once a potential participant was identified, I contacted them through the LinkedIn messaging platform and via email with the same Letter of Initial Contact I wrote for my ARISE ethics application. I had a secondary strategy for contacting individuals if this strategy failed to yield participants, but I had no need for this other strategy as I was able to identify all my participants using LinkedIn. I then directed communications through to my University of Lethbridge email account for the purpose of answering questions, sending and receiving the signed Informed Consent Document, scheduling the interview, sending and receiving the questionnaire, and providing an opportunity for the participant to review the transcript of the interview.

I initially wanted about ten participants, a number which my supervisory committee considered reasonable given the depth of the interviews to reflect the qualitative nature of this research and the time limits of an MA program. I ended up interviewing a total of twelve (N=12) individuals, each of whom met the inclusion criteria. The interviewees and their backgrounds are presented below in Table 1.

I strove for a 1:1 ratio of people presenting as men and as women in my participant group to balance binary gendered voices in this research. Since this research does not aim to homogenize and average the views of participants to create a generalizability to the rest of the industry, matching the ratio of men and women to a realistic ratio of the two in the industry was not necessary. This research is concerned with identifying deep and rich understandings of subtle social mechanisms in place that influence trucking OHSMSs and interpreting meaning from the data in conjunction with my own subjectivities. For example, appropriate quantitative methods controlling for gender and of a much larger sample size would be needed to be able to claim a certain percentage of trucking safety professionals, *in general*, believe equity is an important component of safety systems. My research endeavours to explore into why such individuals may believe equity to be important and how such a belief is positioned within the broader social construct of Albertan neoliberal influenced trucking safety culture.

It was important for me to gather the data needed to perform a gender analysis based on the binary of masculine and feminine presentation. Participants were not specifically asked if they were men or women, although some did have their preferred pronouns listed publicly on their LinkedIn profiles. I chose to give equal numerical weighting to each group for the purpose of being able to see if I could detect differences in their approaches to trucking OHSMS management.

Questionnaire Results

I employed a simple questionnaire which was given to participants to complete prior to their individual interviews. The purpose of the questionnaire was to document attributes of each safety professional related to their professional practice and career in a way that did not draw upon the time needed for the interview. The results from the questionnaires were collected and analyzed in NVivo and exported to an Excel spreadsheet. Due to the large size of this spreadsheet, I summarized the key results from the questionnaires into Table 1 which gives an overview of the experience and education levels of each individual interview participant, along with their presented gender and employment status (employee versus contractor).

Out of the 12 participants, four were contractors. As discussed in the Methods chapter, I created a 1:1 ratio of men and women, based on gender presentation from names and pictures on their LinkedIn profiles. Experience ranged as low as four to 23 years as a trucking safety professional. Most of these individuals stated having received formal education in NSC with only about half having formal education in OHS. Individuals claiming to have received mentorship in either or both NSC and OHS was about half as well. As a result, some of these individuals were largely self-taught in the rules surrounding their professional work.

What can be said from the questionnaire results is that there is no clear, specific pathway to becoming a trucking safety professional. Other professions, such as becoming a journeyperson electrician or educational assistant, require prescribed training that is regulated outside of any single employer. A trucking safety professional, however, can declare themselves as such and may pursue education and/or mentorship as they see fit. This is perhaps surprising, given how heavily regulated carriers are from a safety perspective and how they are required, by law, to have a person designated as the individual responsible for “maintaining and implementing the safety

program, and [...] ensuring compliance with safety laws" (Province of Alberta, 2002, section 40(2)(a, b)). No further guidance is offered by the Government of Alberta nor the Government of Canada on what specifically makes such an individual competent to fill this role, and the industry itself has not had much formal training in this area until the Alberta Motor Tranpsort Association (AMTA) began delivering its Certified Transportation Safety Professional (CTSP) designation program in 2018 (2020).

Whether a lack of formal, mandatory training for the role of trucking safety professional is a detriment to the industry is debateable, though. Since the aforementioned Alberta regulation only requires such an individual to administer a program based on legislation, mandatory training for such an individual could be as pedagogically simple as training to a checklist directly reflecting specific legislative requirements. I have no doubt each of the individuals I interviewed was a competent trucking safety professional, a claim I make based on my assessment of their familiarity with the knowledge needed in such a role and the assumption that I am able to make this assessment based on my industry experience, formal training, and ongoing professional development. Given the differences in the operations of different carriers, it could work well for an industry to have the freedom to allow their safety professionals to become competent through less formal, on the job training specific to the needs of individual organizations as long as there is a formal mechanism in place to educate on minimum legislative requirements (an area where standardized training makes sense).

My research questions did not intend for me to deeply explore the training and experience necessary to be a competent trucking safety professional. However, the above questionnaire results presented in Table 1 do show the variety of backgrounds and approaches to formal and informal training seen in these individuals. This shows that it cannot be assumed that trucking

safety professionals across the industry have shared learning experiences. It can also not be assumed that someone who calls themself a trucking safety professional is actually knowledgeable in both NSC and OHS safety frameworks, given that some of these individual will either choose a single framework to operate in or may enter the profession in a role at a carrier where they are only required to operate within one of these frameworks. Furthermore, in my thematic analysis where these individuals' narratives converge into themes, it demonstrates converging observations of the industry that cannot necessarily be described as the result of a formal educational program.

Data Collection

After a participant had responded to my initial communication and signalled their interest, I sent them the Informed Consent document along with an overview of their commitment requirements. Once I received the signed Informed Consent Document, I sent them the questionnaire and work with them to schedule the interview via Microsoft Teams. One interview was conducted in-person (Participant 1); all others were conducted on Microsoft Teams.

I arrived several minutes early during each interview. I started each interview with a standard informed consent statement and received verbal consent, and then started the recording devices. I used Microsoft Teams as my primary means of recording and an iPhone as a backup recorder. I took notes as necessary during and after the interviews but tried not to let notetaking distract me from the interview itself. After each interview was complete, I downloaded the Teams recording and saved it securely. I then ran the interview recording through Otter AI, an online subscription-based transcription software program. The completed Otter AI transcripts were then converted into Microsoft Word documents and saved securely. The Otter AI files were subsequently deleted. The questionnaires, all Microsoft Teams recordings, and transcripts were all saved in multiple secure digital locations. iPhone recordings were all deleted after the Microsoft

Teams recordings were transcribed and saved in multiple secure locations (U of L Microsoft OneDrive; Google Drive) to help protect participant anonymity as part of the ethics requirements and to ensure the security and stability of the digital files.

I transcribed each interview by reviewing the Otter AI-generated transcript against the interview recording, correcting all transcription errors along with way. I also removed all names, assigned a participant number to each transcript in lieu of a pseudonym, and removed any text in the transcripts that named an individual or corporation. A short abbreviation in square brackets was inserted when this was done. I then standardized the formatting of the ttranscripts, including a legend at the top of each. Due to an error on my part, I lost the last approximately five minutes from the recording and transcript for Participant 9.

After I had finished transcribing my interviews, I sent each back to its respective participant for any possible feedback or comments. I gave a deadline of late in December, 2022 for comments. No comments or feedback were received from any of the participants. I do not consider this a true member checking as I did not actively ask the participants to review their transcripts, nor was reviewing their transcripts a requirement of their participation; this approach is consistent with a Big Q reflexive thematic analysis approach to data analysis (Braun and Clarke, 2022). I allowed for feedback and the opportunity to withdraw, but did not actively conduct a member checking the same way that might be expected from an oral history project.

Data Analysis

I used reflexive thematic analysis for my research project, largely following the six phases outlined by Braun and Clarke (2022, 35-36): 1) dataset familiarization, 2) coding, 3) generating initial themes, 4) theme development and review, 5) refining and naming themes, and 6) the write up. As recommended by Braun and Clarke, I did not treat these phases as steps but instead took a

fluid approach to my analysis, moving between theme refinement and coding as needed over the course of their development.

My dataset familiarization was conducted during the transcription process where I listened to each recording at least once fully and review the transcript word by word for the purpose of correcting any inaccuracies from the transcription software, Otter AI. I also familiarized myself with the participant's questionnaires, and used the qualitative data analysis software NVivo (Release 1.7.1 (1534)) to organize my transcripts, questionnaires, codes, themes, and theme maps. This first involved uploading the transcripts and questionnaires into NVivo as files, and then creating a case for each participant under which the respective questionnaires and transcripts were linked.

The questions in the questionnaire were direct and better suited for organizing as case attributes than as codes. Therefore, I used case classifications to organize each participant's demographic information (gender presentation) and questionnaire answers. To better compare the questionnaire information, additional case attributes were created to standardize some of the data. For example, while a participant may have provided details for their previous occupational health and safety (OHS) or National Safety Code (NSC) education, I added an attribute to assign either a yes or no value to such a question to make it simpler to see which individuals had received training or not.

Once I had completed my work with the questionnaires, I proceeded to the coding of the interview transcripts. My initial coding approach was inductive; I did not start with a code framework and built my codes directly from reading the transcripts. This did eventually create a sort of framework partway through my initial coding run as the interviews themselves were often largely thematically congruent. I employed both semantic and latent coding. While semantic

codes made sense when meanings were literal, it was often the case that I coded latently given my understanding of the industry and the context in which the participants were employed in the trucking industry.

For my second coding run, I took a deductive approach by using my main and sub research questions as a coding framework. I assigned the codes developed during the first coding run under each research question as appropriate to more directly identify relationships between the data and the research questions. I then conducted a third and final formal coding run where I reviewed the transcripts again and coded as necessary from both inductive and deductive perspectives. I reviewed the transcripts in the reverse of the original order to reduce my familiarity with the participants.

I did use NVivo's autocoding feature (which NVivo describes as a tool to "identify themes") but found it not to be overly useful. It takes very short text excerpts around keywords which has the effect of erasing the context of the text, especially if the participant was using sarcasm or misspoke. Several of NVivo's automatic analysis tools produce quantifications of text, such as keyword frequencies. This sort of analysis is not important for this research project as the frequency of a single word throughout a transcript does not necessarily assist with the development of themes or the analysis of meaning. I did, however, use NVivo's mapping features to visualize relationships between codes and themes as part of my analysis.

I also organized my codes into topic summaries in NVivo in addition to organizing them by research question. This allowed easier navigation of my codes. When I moved on to thematic development (phases 3, 4, and 5), I continued to use NVivo to name and describe my themes, and organized codes under themes in the coding section of NVivo. Not all of my codes were assigned to the five themes I eventually ended up developing. Once I had defined my final themes, I

proceeded to the writing up my thematic analysis which makes up the remaining sections of this thesis.

CHAPTER IV

SAFETY ACTIVITIES FOCUS ON COMPLIANCE, NOT NECESSARILY SAFETY OUTCOMES

This chapter explores my theme that compliance does not equal safety and may even create its own safety problems. Participant 4's comments below concisely express this sentiment:

> Participant 4: [...] they know that they have to do the paperwork side of things. But the implementation from the paperwork side of things is lacking. So they talk the game, but don't walk the walk.
>
> Dave Elniski - 18:15: So compliance for the sake of compliance, but they're not-
>
> Participant 4 - 18:20: But they're not actively involved in the safety processes, or the safety communities or, you know, making sure that other work areas are safe.

As if an end in and of itself, safety professionals commented on how they felt their employer was focused on the letter of the law to avoid conflict with regulators. In turn, this focus requires safety professionals to fill their time with tasks not necessarily associated with improving workplace safety outcomes, such as making sure drivers are compliant with hours of service (HOS) rules instead of finding ways to reduce collision frequencies.

In this chapter, I argue that safety professionals are aware of the differences between compliance and safety outcomes. They see the importance employers place in compliance and corresponding regulatory expertise, and draw a distinction between ensuring compliance and critically approaching safety goals. Finally, whether they express it directly or indirectly, safety professionals see how the impacts of the socially constructed workplace, situated within a broader society, require a nuanced approach to their professional practice in ways that sometimes conflict

with the prescriptivity of safety regulations and employer expectations. Figure 2 presents a visualization of this theme and its subthemes.

Compliance is an excellent goal when the rules are effective. Following the rules to the letter would be the right approach if it could be said with certainty that following specific safety laws would lead to positive safety outcomes (i.e., no collisions, no loss, no injuries). Canada's National Safety Code (NSC) framework, the set of standards created federally for use by individual provinces to draft their commercial vehicle safety legislation, is an example of a regulatory framework meant to promote positive safety outcomes. It was created in the late 1980s to improve highway safety in Canada, and followed on the heels of the economic deregulation of Canada's trucking industry (CCMTA, 2023). CCMTA (2023, 3 par.) admittedly creates "minimum performance standards", as is often the case with safety legislation. Compliance with the minimum standard is not the same as striving for continuous safety-related improvement; if employers make compliance the goal and instruct their safety staff accordingly, they communicate the message that safety is about meeting auditor expectations and regulatory requirements and reducing liability, not about reducing collision and injury rates. Compliance with existing standards and regulations is an important part of any safety program since they are generally designed based on negative past experiences with the intention of preventing future reoccurrences. However, compliance alone as a goal creates a safety system where policies become, as Ahmed (2006, 105) uses the term, "nonperformatives".

Ahmed (2006, 108-109) describes the creation of an antiracism policy document at an educational institution as "having a good race-equality policy quickly got translated into being good at race equality" when describing such policies as nonperformatives. Nonperformatives are speech acts (written or spoken) that works by not bringing about the effect it claims to attempt to

bring about. Similarly, a safety program can also be a source of nonperformatives in this sense. If the safety program is drafted to be compliant with legislation and this is seen as the purpose of the safety professional's activities, then the measure of a "safe" carrier is one that has the prescribed legal documentation. An employer that adopts such a safety program is able to laud itself as a safe carrier simply by reviewing its own documentation it may have created without considering the realities of the work the carrier's drivers perform (i.e., the hazards facing truck drivers).

Factors external to a carrier also encourage a compliance-first approach to workplace safety. NSC non-compliance is associated with fines, whether from roadside enforcement officers or auditors at the carrier's office. A carrier can also have its Safety Fitness Certificate (SFC) revoked by the Government of Alberta if it is deemed the carrier poses too great a risk to public safety. Enforcement of OHS regulations follows a similar pattern, although, as I have previously noted in the Introduction, OHS enforcement often attempts to take a more systemic approach by targeting the employer instead of stopping at immediate worker actions. Monetary penalties and the loss of the ability to conduct business are standard reactions to detected non-compliance from a regulator, whether by the provincial government of Alberta or the federal government of Canada. This method of enforcement positions safety compliance as a business cost which assigns a monetary value to specific infractions. When this is done, employers can quantify, in dollars, the costs associated with not complying with safety rules and weigh these costs against the potential additional revenue that may be possible to earn when operating non-compliantly.

Canada's trucking industry, much like that in the United States, is fiercely competitive, especially amongst small- and medium-sized employers. Following the economic deregulation of the late 1970s in the United States, the government stopped regulating the ability of carriers to haul

certain commodities on certain routes which opened up the movement of freight as a service to new carriers (Belzer, 2000; Viscelli, 2016). Canada followed in the 1980s. Belzer (2000) has documented the stagnation of wages and tighter profit margins that resulted in the trucking industry, and these more competitive conditions lead carriers to reduce their operating costs in order to survive. As a result, it is possible for a carrier to decide to break certain rules with the knowledge that the cost of getting caught is less than the cost of conducting their operations in this manner. I have personally witnessed this type of practice as a fleet safety manager where my role seemed, at times, to be a compliance cost estimator more than a safety professional. Such practices and a financial outlook on safety may be a contributing factor to non-compliance with labour and safety regulations that Vosko et al. (2021) identified amongst federally regulated Canadian trucking companies.

Several of my interview participants also noted the value their employers, past and present, place on previous regulatory experience, such as on-road vehicle enforcement experience or working at government office. When asked about how they got into trucking safety, Participant 1 stated "I started my career at an Alberta registry, and a director of transportation for an oil and gas company kind of spotted me in scope me out and slipped me a business card". Similarly, Participant 8 started from a background in vehicle registries. Participant 11 credits the"knowledge of the [...] National Safety Code" to current employment, and Participant 6 notes the background "as a policeman [and] collision analyst" as a key contributor to current employment. I personally have several professional contacts in trucking safety who started in enforcement, such as through the Alberta Sheriff Highway Patrol (previously Commercial Vehicle Enforcement, or CVE) or as a government compliance auditor. Such backgrounds are ostensibly logical; after all, safety professionals do need to understand compliance requirements. However, safety professional

certifying organizations like the Board of Canadian Registered Safety Professionals (BCRSP, 2020) value critical thinking abilities in their certificate holders, as evidenced by the BCRSP exam blueprint where competencies like a solid technical understanding of health and safety controls, interpersonal skills, and the ability to problem-solve in a business environment are expected. My interview participants often lamented about the challenges they experience on a regular basis when it comes to acquiring resources for their safety systems and the frustration of being preoccupied with compliance work and having little time to do work that impacts safety performance, such as troubleshooting the root cause of an injury trend. While a background steeped in regulatory acumen was noted as being valuable for a trucking safety professional, frustration with an employer's willingness to comply when convenient was also evident. As Participant 10 put it, safety systems in busy and growing companies require "more people, that means, you know, more equipment" but that management often does not "want to spend the money."

Subtheme - Carriers may manage employment structures instead of hazards to improve their safety profiles

The practice in the trucking industry of hiring drivers as contractors for economic reasons instead of as bonafide employees (i.e., Canadian employees who receive an annual T4 income tax form from the Canada Revenue Agency, or CRA) is well-documented in the United States. Belzer (2000) describes how hiring a driver as an owner-operator not only allows the company to offload risk onto the individual driver, such as safety risk and the financial risk associated with maintenance and repair bills, but is also a tool that can be used to prevent unionization and, therefore, limit the collective bargaining power of a fleet's drivers. Viscelli (2016) describes how large carriers exploit the freedom associated with self-employment, a neoliberal ideal to which many Americans and Canadians alike aspire, to attract inexperienced drivers into lease agreements

over employment. These practices allow carriers to both benefit financially while playing to self-employment ideals that are especially attractive to drivers who aspire to traditional Western masculinities, such as feeling a sense of ownership over their work duties and equipment and the importance of being a rugged individual as opposed to as a member of a collective labour union (McLean, 2017a; Ouellet, 1994). Specific to my study, Alberta's trucking industry has a history of celebrating the success of trucking company founders who grew from owner-operator independence into larger fleets (Rubak, 2003). These stories associate traditional masculinity with business independence and a rejection of collectivization: the hard-working man starts his business with a single truck, outwits his competition, delegates nonoperational tasks to his wife, and accomplishes all this on his own. This is a common practice in Alberta's trucking industry to use contractor employment arrangements for similar ends as is seen in the United States.

My interview participants also spoke to the use of contractor employment agreements in the context of safety system management. Participant 11 stated:

> "Just, you know, hey, you're on your own WCB number, I don't care if you get hurt, because it's not going to affect my numbers. And that definitely exists. My current company, not as much, but yeah, I've definitely seen that in the past. They'll give the high risk jobs to the contractors who have their own plates, their own WCB, let's not send our guy cuz there's a good chance that they might get hurt. So let's send that guy. I've definitely seen that in the past."

This response to my questioning on the potential effects of employment status on safety outcomes provides an example of how the management of the carrier's safety system is sometimes done strategically to manage metrics, like injury rates and insurance (i.e., WCB, or Workers'

Compensation Board insurance). By creating a class of workers removed enough from the operations of the carrier that their incidents are excluded from official reports while close enough that control over the workers' actions remains with the carrier, this form of safety management simply manages numbers for the purpose of creating a positive picture of safety without actually doing anything to improve safety outcomes. Participant 11 says:

> "So anybody who's on the company's WCB, you know, they're, they're monitoring those safety systems, they're very aware of what they do, because they know they're being monitored, where somebody who's on their own WCB doesn't want to make waves doesn't want to put their hand up as eagerly, because they might lose out on future work. They're not an employee, the employer has no obligation to continue using them because they're not a direct employee. So they're afraid that if they raise their hand and say this isn't safe, that they may not get future jobs or future loads."

Such a workplace dynamic is an example of how contractor status can result in less control, not more, over a driver's working conditions. While the contractor may be free to choose how they work, this claim to freedom is problematic because the financial pressures the contractor faces certainly impact how they conduct themselves and the risks they are willing to take.

Another interviewee, Participant 12, believed the employment relationship with the carrier impacts safety as a result of safety oversight:

> [...] an employee driver is [...] typically a little bit more trained. [...] The broker driver [a lease operator] that licenses on is probably the next level of of safe in my opinion. [...] And then the true broker [an owner-operator] that runs their own safety and compliance program runs their own safety fitness certificate, I'd say they could

> have the potential to be the least safe because there is no oversight about what they do. Additionally, those drivers are capable of performing their own maintenance, which means that you might have somebody who's unqualified performing maintenance [...]

In this excerpt, Participant 12 suggests a fully employed driver is likely to fair better, from a safety standpoint, because they are under the safety management of the carrier and less free to cut corners in the form of poorer vehicle maintenance standards. The further the driver is removed from being a full employee results in poorer safety outcomes because, presumably, a more independent driver is less capable of managing a commercial vehicle and workplace safety program on their own. In my own experience, smaller carriers have fewer resources available for safety management which is an increasingly complex component of a carrier's operations. This observation is further supported by the findings of Vosko et al. (2021) on labour regulation compliance amongst small federally regulated Canadian trucking companies.

Some other interview participants noted how they managed the safety of their contract drivers, treating them "like an employee driver" (Participant 4) for the purpose of ensuring they are following the necessary rules. In other circumstances, "there's less oversight as to how the [contract driver] operates as long as the work gets done" (Participant 12). These different approaches to contractor safety management represent attempts by the overarching carrier to manage the safety of its workforce through manipulating the employment relationship with its drivers instead of actually modifying work processes. The hazards present in the work itself are not being addressed and the only concern is with basic regulatory compliance for the purpose of appeasing regulators. Similar to the findings of Provan et al. (2019), trucking safety professionals

and their employers spend considerable time on managing compliance and administrative concerns as opposed to doing safety work that may actually impact the risk associated with certain work tasks. In other words, a great deal of work is done in the name of safety that does nothing to address the physical reality in which carrier workers find themselves. Hence, a nonperformative (Ahmed, 2006).

Subtheme - NSC compliments OHS but lacks psychosocial considerations

NSC safety is focused on on-road safety (i.e., protecting the public from motor carriers) whereas OHS is focused on worker safety (i.e., protecting motor carrier staff from motor carriers). These different safety frameworks are also different in their foundation. OHS emphasisse the importance of companies identifying hazards in their operations and then working to correct these hazards. NSC, on the other hand, prescriptively lays out a set of rules for a predetermined set of hazards and does not require the same inward operational examination of safety hazards as OHS.

Another way of looking at NSC is as a control for OHS hazards. There are well-known hazards associated with operating commercial trucks and the NSC was designed to mitigate the risk these hazards pose to the public. OHS, on the other hand, demands that a company identify hazards in its operations and implement safety controls as needed to address these hazards. NSC is essentially a precreated - and mandatory - set of safety controls for all commercial carriers to implement in their operations to address the vehicle-related hazards that a good OHS program should identify. However, OHS needs to cover all aspects of a company's operations, not just the operation of commercial trucks on public highways; whereas NSC stops short of considering the non-driving activities undertaken by the carrier and does not, outside of HOS rules, consider psychosocial hazards that face the drivers and other staff members at carriers. NSC also does not

consider hazards facing workers and, as a result, OHS encompasses all of NSC. But NSC, without OHS, is an incomplete safety system.

Carriers also often segregate their NSC and OHS safety activities, especially at larger companies with more staff. In a discussion on NSC and OHS departments, Participant 1 said "[...] I've worked for places where they're completed divided and segregated. I mean, the two don't talk to each other as much as they could." She further described the integration of NSC and OHS safety activities as the ideal approach to carrier safety. This same sentiment was shared by Participants 2, 4, 6, 7, and 9. Participant 8 described NSC and OHS integration as potentially problematic, but stating "[...] if they're combined, they]re insufficient for an industry audit." However, this statement refers to the problems some carriers face when they lack adequate internal resources to manage both safety programs. The problem is not with the combination of NSC and OHS programs but instead a problem with a lack of resources for safety overall.

Participant 8 and I also had the following conversation about NSC and psychosocial hazards, where psychosocial hazards indicates "the combination of psychological, environmental, and societal factors that affect an individual's psychological well-being" (Elniski, 2022, 8):

> Dave Elniski - 28:36: So yeah, so if you if you were asked then as a safety consultant by a carrier, okay, we have you know, we have women drivers, and they don't feel safe in such a situation, or we've got people that, you know, we feel that people are really pushing it for financial reasons. What do we do to be a safer fleet? Is that something you would then, like, how would you handle that type of question for carrier?

Participant 8 - 29:01: I wouldn't even attempt to I don't think just because, you know, my, I might have an opinion. But my opinion isn't is not why we're there. Right. So.

Dave Elniski - 29:12: So that would be like, sent to another consultancy or another source.

Participant 8: Yeah.

It is important to note that Participant 8 is a safety consultant who declared she has received no training on OHS principles (see Table 1) and specializes in NSC consulting. Despite being an experienced NSC consultant, she did not feel equipped to discuss psychosocial safety required in an OHS program. Our dialogue demonstrate how NSC is not equipped to handle psychosocial hazards and, as a result, carriers with strong NSC and weak OHS will have gaps in their OHSMSs.

Interview participants further described NSC as not being concerned with psychosocial factors like ethnicity and gender. Participant 8 described workplace safety concerns stemming from gendered and racial violence as "not an NSC issue." Participant 11, this time a man working as an employee for a carrier as a safety professional, said he did not believe there was any difference in the abilities of men or women to safely operate vehicles as a truck driver. However, when I asked if gender plays a role in personal safety, he noted the impacts of gender:

Dave Elniski: Do you think that their gender, the gender of an individual makes it easier for one person to receive protection and a traditional safety system whereas others might not?

Participant 11 - 19:26: The physical side, I don't really see a huge difference. Potentially the harassment side of things there definitely is. You know, being a

> woman in trucking is still relatively new relatively, you know, I won't I don't want to say unique but a lot of individuals in the industry find it a novelty to have either women in trucking or transgender people in ttrucking. So from, from that side of the safety system, I definitely do see a difference in that. It is easier to be a cis-man in trucking, then pretty much anything else.

Later in this same interview, Participant 11 also described how the number one safety concern of a recently hired transgender individual was the inclusivity of the company, not other factors like pay or equipment condition. He described these psychosocial issues as safety hazards outside of the NSC realm but within that of OHS. Research in trucking industry safety does indeed extend well beyond the factors NSC is intended to address. Faulkiner and Belzer (2019) explored the relationship between pay and safety performance in a major United States carrier. Reiman and Väyrynen (2020) identify OHS factors where future work is needed to further improve carrier safety. Williams et al. (2017) specifically identified psychosocial factors from driver narratives. These studies reveal that a much broader approach is needed in trucking safety to see further improvements in metrics like collision rates, driver attitudes towards safety, and injury rates. NSC, while a valuable compliment to OHS, lacks the necessary scope to bring about these improvements on its own.

Subtheme - Prescriptive rules and regulations limit critical thinking, which is detrimental to safety

Safety regulations, especially those contained within the NSC framework, were described by my participants as important but, in their current form, burdensome and redundant, resulting in busy work for safety professionals that occupies time that could otherwise be spent doing work

that might reduce the risk posed by hazards. Here are some examples of comments made by Participants 1, 10, 11 and 2 when I asked what sort of problems safety regulations and systems create for themselves:

> Participant 1 - 46:20: I think there's a lot of redundancy. There's a, wildly administratively heavy. I really struggle with everyone has their own set of rules.
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> -
>
> Participant 10: [...] my other beef with the industry is the legal registrations on, you know uh, what constitutes a commercial truck, like especially with pickup trucks and trailers, you know, other jurisdictions, you know, in Alberta, if you're provincially regulated you're good for 11794 but if you go to BC you're not, if you go to Manitoba or Ontario you're not, not like, the whole thing is just so bizarre for me. Alberta and Saskatchewan pretty much have the same rules but other provinces don't, so why does it work in Alberta but not in Manitoba or Ontario. The rules are different everywhere and that makes it difficult [...]
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> -
>
> Participant 11: [...] I think some of the legislative requirements, when it comes to wording to some of that can become a barrier in that, it just becomes almost too much for, for somebody to try to read and retain.
>
> -
>
> Participant 2: [...] it stops, it could stop people from critically thinking, or from critical thinking. And more problem solving, instead of they might be relying on the program to tell them what to do, versus something happens. And you, we've lost, we've lost some critical thinking potentially [...]

It is evident, from these narrative examples, that safety professionals experience varying degrees of frustration from trying to maintain compliance with regulations and managing their OHSMSs in a way that makes sense for their employer or clients. Safety-related technology, like electronic logging devices (ELDs), was even described positively by, Participant 11, not because it was seen as actually helping bring about safer working conditions for truck drivers but because it frees up time that used to be spent on monitoring drivers for compliance with HOS regulations:

> Participant 11: [...] the amount of data and technology out there, makes my job so much easier from back in the time when I used to have a paper log, and I'd be doing the math of okay, he drove for this many hours today. But he had this many kilometers. So he averaged 102 kilometers an hour. That can't be right. And then if you want to go deep diving, okay, where's his fuel receipts? Where's this? Where's that? The fact that this basically is all done for you now is huge.

These comments about the administrative burden posed by regulations and the resulting busy work they create is also documented by Provan et al. (2019) in their ethnography of safety professionals. The authors note that they found a strong "alignment between the safety professional role and line management, the increasing institutionalization of safety professional work, an absence of safety professional work directed at reducing safety risks to workers, and the lack of a clear connection between safety professional practice and safety science research" (abstract). These comments on the role of safety professionals demonstrate the challenges safety professionals and departments face in maintaining their autonomy from management, which runs contrary to the ideal model of safety organization I presented in the Introduction. Furthermore, if

these administratively heavy safety tasks do not necessarily produce tangible safety-related results but are still nevertheless valued by management as part of demonstrating safety compliance to stakeholders of interest, like customers and regulators and staff, these activities become both written and acted-out nonperformatives (Ahmed, 2006).

Prescriptivity as a barrier to critical thinking has been identified as a problem with North American trucking HOS regulations. Knipling (2009, 218) writes, on the rigidity of HOS rules, "A general problem with prescriptive work rules of all types is that they require rote compliance instead of intelligent self-management". Through enforcement mechanisms and customer pressure to produce positive compliance audit results, carriers are put into a position where demonstrating a pattern of rule following becomes perhaps the singularly most important goal of the safety department with no consideration on whether or not such activities are actually reducing the likelihood workers and members of the public suffering harm from the carrier's operations.

Furthermore, the conflict between critical thinking and externally imposed prescriptivity, consultant-auditor conflict of interest agreements were described as getting in the way of immediate safety improvements at carriers. Participants 12 and 8, both consultants who provide auditing services to carriers, described the conflict of interest agreements that are in place that prohibit them from providing consulting services to clients they audit and vice versa. The intention of the agreement is to ensure a consultant does not audit their own work. However, the restrictive nature of this agreement was noted as being a barrier to immediate safety-related improvements. As demonstrated by Participant 8:

> Dave Elniski: Okay. And I had heard of that I'm aware that yeah, like a third party auditor for Alberta transportation cannot consult at the same place that they audit. And I mean, and I understand that, COR is the same way. I understand the spirit of

it. But I guess this kind of made me wonder, like, what about like, during action planning, or the end of an audit? You know, it's like, in a carrier says, hey, I got a question about this. And it really, is that hands off? Or is there any ability to explain what to do to improve result?

Participant 8 - 40:48: So it's really supposed to be hands off. It's supposed to be here's your audit, here's your report, and I can't even talk to you for 60 days. But it's really tough when the carrier asks you, you know, can you explain to me what this means, and not not be able to explain it to them. So again, it's a fine line, I can explain to you what it means and why it's wrong. But I can't tell you how to fix it. I can't help you.

The inability of a carrier to receive immediate and actionable guidance from the individual who just finished identifying their faults is a point of frustration in the carrier community, especially amongst those who want to comply with the regulations. In my current role as a safety advisor, I hear this complaint from carriers as I assist them in meeting regulatory requirements after an inspection or audit. It is another example of the dissonance that exists between compliance-centric and human-centric approaches to workplace safety, a key distinction between different ways of "doing" workplace safety that is a major point of contention in the broader OHS community. In a recent study, Provan et al. (2021) identified four types of work performed by safety professionals: demonstrated, social, administrative, and physical. Of these, physical safety work is the only type that involved changing the way work is done for the purpose of reducing risk to workers. Also, physical safety work was also the most challenging type of work; they spend most of their time on the other categories which are similar to the compliance-focused safety work

I have described above. They suggest that safety professionals need to create independence from management objective, instead of allowing the work of safety to be defined by organizational pressures. This further suggests an immaturity to safety as a profession when compliance-focused and nonperformative work represent the bulk of what is actually done by the safety department.

Chapter Summary

Trucking safety professionals could distinguish between safety work designed to demonstrate regulatory compliance and safety work that modifies how work is done in response to identified hazards that may or may not be addressed by regulations. While compliance is important, both as a corporate goal that justifies the role of some safety professionals and because safety regulations are meant to address common hazards, there seems to be an opportunity for more hazard mitigation safety work in trucking that transcends goals of basic compliance. To do this, carriers need to be resourced enough to ensure the compliance pieces are in place with enough problem-solving capacity amongst staff to address hazards that fall between regulatory cracks.

I am uncertain whether a typical safety professionals are competent to do this work, since employer's interest in compliance causes them to select safety staff with regulatory experience, not necessarily with the ability to modify a carrier's operations for the purpose of improving safety outcomes. It could be the case that these different types of safety work can be reasonably performed by a single type of professional. It could also be the case that the critical safety work is best singled out from compliance-centric safety work and that the safety profession be accordingly divided in terms of professional specialization. I can say with more certainty that carriers interested in improving safety performance, not just compliance audit results, will need to determine what type of activities with which their safety staff are most preoccupied.

CHAPTER V

EMPLOYER POWER OVER STAFF GREATLY INFLUENCES SAFETY OUTCOMES

A trucking company's safety department and operations (i.e., activities that more directly and obviously result in increasing revenue) department often have an adversarial relationship, especially at smaller carriers. Trucking in North America is a hypercompetitive industry (Belzer, 2000) where macho attitudes regarding the importance of getting the job done at all costs are ingrained in the attitudes of some individual truck drivers (McLean; 2017a; Ouellet, 1994) and play a major role in the establishment of many of Alberta's major carriers (Rubak, 2003). Furthermore, NSC regulations define safety in terms of on-road collision rates and equipment condition for the purpose of protecting the public, and carriers may prioritize NSC safety over worker-centric OHS as a way to control insurance costs. As a result, the part of the OHSMS that protects workers from occupational hazards must compete with these other forces that pressure carrier management to sparingly direct resources towards compliance-based approaches to safety only when operations allows for it. This conflict between operations and safety was also noted by my interview participants, accordingly:

> Participant 10: I think that everybody wants to have the more the most stringent, you know, safety standard. But then if you establish you know, that standard, now you might interfere with operations.
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> -
>
> Participant 11: But I think that's one of the big ones that comes up, safety is an expense.
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> -

> Participant 12: the operational push to have an employee generate revenue versus be and have proper training and be trained was another one before you know they're they're deemed competent in the role. So trying to balance that productivity and and job competency.
>
> -
>
> Participant 7 - 51:30: Obviously, operational. If you're going to do, if you want to roll out anything that can impact a company's bottom line, make a driver have to spend 15 to 20 minutes an hour or more at their job, which is going to cause delays and increased payroll costs. That is the biggest barrier.

These comments from trucking safety professionals identify an obvious conflict between operations and safety. More deeply, they speak to the power employers have over both safety professionals and the rest of the company's staff. In this chapter, I argue the power dynamic between employers and their staff, whether employees or contractors, allows employers to influence safety outcomes positively or negatively in a way staff themselves are powerless to reciprocate. The way in which a carrier pays its drivers is one powerful example of how employers use their power, putting drivers into a position where they decide whether to perform their work compliantly and safety or earn more money. Finally, I identify the way in which work refusals are handled by employers as a litmus test to determine an employer's attitudes towards safety and their power over truck drivers. Figure 2 presents a visualization of this theme and its subthemes.

Trucking safety professionals occasionally made comments that suggest carriers generally start out in business without a focus on safety and add it later once they have more resources. According to Participant 12:

> Participant 12: [...] when when you have a new carrier, that that maybe is isn't as financially stable as other ones, I think that has an impact [on the safety system] as well, because they're a little bit more results profit driven [...]"

As a consultant, Participant 7 had experience with multiple carriers and described the general trend of OHSMS growth in a carrier as follows. First, safety staff are added once problems are identified, such as an accumulation of tickets or negative regulatory audit results. These initial safety staff are often individuals already employed at the company in a different role and likely do not have safety training or experience. Then, staff training and more safety staff and resources are added in response to incidents that signal to management these resources are needed, like additional regulatory requirements or a costly incident trend. The focus in OHSMS resources may not grow with the business like other departments, such as dispatch teams, driver recruiters, and salespeople. Instead, safety may not receive additional resources if current safety-related metrics are acceptable to management. To overcome the power imbalance between management and safety, safety professionals will need to make a business case that, unfortunately, may take the form of an incident safety staff knew was likely to occur. This reactive form of safety management is a type of systemic issue Vosko et al. (2021) identify in small- and medium-sized federally regulated Canadian trucking companies. They believe that the Canadian federal government's practice of employer-driven OHS compliance, which is suitable for larger organizations, does not meet the needs of these smaller, competitive businesses.

Another way in which employer power over safety staff can negatively impact safety outcomes is that safety professionals are not always privy to all safety-related information. Justifications from the employer for withholding information typically are privacy for those

involved or the information being withheld is not seen as part of the safety professional's portfolio. Participant 1 described a gender-related safety incident in which the investigation was "taken up and away" and no news was ever shared. The protection of privacy for those involved is important; however, incident investigations are most effective when the results are somehow shared with staff for the purpose of preventing reoccurrences. While taking the investigation away and delegating it to a specialist may be the best move for a particular incident, not sharing appropriately with the safety department afterwards implies a lack of concordance between what the safety professional thinks are matters of their concern and that of management. If the person managing the OHSMS is not privy to all information related to hazard management, including psychosocial hazards, then their efficacy is diminished. Due to the inherent power dynamics and hierarchies in capitalistic businesses, safety professionals may be unable to challenge management into sharing relevant information and, as a result, be forced to manage the OHSMS from a position of vulnerability, uncertainty, and unawareness.

Subtheme - Variations in pay and employment structure influence safety outcomes

Belzer (2000) describes truck driver pay as a major casualty to increased competition in the United States' trucking industry following the industry's deregulation in the late 1970s. The proliferation of contractors instead of employees in trucking further exacerbates pay-related issues facing drivers since additional financial risk is placed on the individual driver, often as part of a employer-favouring contract that gives the contractor less freedom over their working conditions than if they were an employee (Belzer, 2000; Viscelli, 2016). Hamilton (2008) further describes the history of how agricultural trucking, exempt from economic regulation, paved the way for the current economics of the trucking industry in North America where, to remain competitive, carriers attempt to keep driver pay as low as possible so they can compete in the race-to-the-bottom rate

negotiations that often take place amongst smaller carriers. However, not all carriers necessarily engage in such practices. For example, Faulkiner and Belzer (2019) documented improvements in driver retention and safety performance at a major American carrier when the carrier raised overall driver pay rates. It is not uncommon for some carriers to elect to raise pay rates to attract drivers, which I especially saw over the course of the COVID-19 pandemic where a fixation on the perceived driver shortage in Canada led many carriers to advertise high pay rates in an attempt to secure stable labour.

While overall pay amounts are certainly important, the method by which a driver is paid also has tremendous influence over a company's safety performance. Alberta Motor Transport Association (AMTA) recently released a document I authored which is meant to assist small- and medium-sized carriers in addressing psychosocial hazards with their OHSMSs (Elniski, 2022). This was in response to recent OHS legislation changes at both the federal and provincial levels, requiring Alberta-based carriers to act on a seemingly new, at least for trucking safety professionals, class of hazards. When writing this document, I included a section on the impacts of driver pay on safety outcomes, advocate for inclusion of the pay system in the hazard assessment process, and encourage carriers to challenge industry-standard pay systems that are based on productivity (i.e., paying drivers by the unit of distance driven, number of loads delivered, or as a percentage of the revenue generated by the truck) (60-63). This was a controversial section to include in a document published by an industry association; however, AMTA management at the time recognized the relationship between safety and pay, and approved the inclusion of the section in the aforementioned document.

The impacts of employment relationship of the driver to the carrier and the way in which drivers are paid were both discussed in depth with my research participants. Each one of them

acknowledged that these two factors have a major impact on carrier safety performance. Generally, participants reported that contractors were less protected by the OHSMS and more likely to experience negative OHS outcomes when compared to employees, an effect that is exacerbated the more the contractor is separate from the main carrier. However, their NSC performance was sometimes reported as superior to employees since, as Participant 1 put it, "if you own the truck, I think you treat it better." Other participants, though, stated NSC performance was poorer with contractors, too. This was either because the main carrier has "had the time and resources to create a [safety] program" (Participant 2) or because the contractor "often will do their own maintenance on their units [and] doesn't follow the carrier's stated intervals and policies" (Participant 8) to save the cost of having the vehicle serviced and repaired at a professional heavy vehicle repair facility.

I saw this contractor NSC vehicle performance paradox while I was working as a fleet safety manager. The company used owner-operators and the level of safety performance amongst these individuals, measured in terms of inspection violations discovered by on-road commercial vehicle enforcement officers, varied greatly between individuals. I could categorize owner-operators as "good performers" or "poor performers" based mostly on their attitude towards their profession. Some were extremely frugal to the point where they let their vehicle get to a point of disrepair that resulted in roadside violations and tickets. Others were frugal but took pride in the condition of their vehicle and ensured it was in excellent condition; these individuals also took pride in going through roadside inspections without any violations and saw tickets as a mark against their status as a professional driver. Others were "poor performers" not because of frugality but because of a likely combination of masculine pride and a misunderstanding of operating costs. These drivers paid more in terms of penalties of tickets because they drove quickly and violated

the HOS rules. Such driving habits also cost them more in terms of fuel and maintenance costs and, unfortunately, collisions. They also spent lots of money on the appearance of their vehicle (i.e., extra lights and chrome) but neglected the mechanical fitness of components not visible from the exterior, like brakes, airlines, and seals. Since all types of contractors owned their trucks, the carrier was not in charge of their maintenance and therefore had to either tolerate the "poor performers" or decide to cancel their contracts, something that was rarely done due to the difficulties in finding new labour to make up for the loss of revenue.

None of my participants described the OHS performance of contractors as better than employees. It was generally seen that contractors, since they were removed, to varying degrees, from the carrier, were not as able to be influenced by the efforts of the safety staff and, as a result, would be more likely to either ignore safety rules or be excluded from them. However, this protection can be controlled by the main employer who has the power to decide how much under its safety umbrella it will bring a contractor. The employer may even intentionally use employment structures as a way to manage hazards by directing contractors to perform more hazardous work than its employees as opposed to reducing risk for the benefit of all people engaged in the occupation. Here is an example of how this is described by Participant 11:

> Dave Elniski - 35:33: [...] how does a person's employment status? So, um, what I mean, there is employee versus contractor versus, like lease operator, owner operator impact their safety in trucking? [...]
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> Participant 11 - 35:53: I think if you've got a proper safety system in place, it shouldn't [...] So, you know, my employees and my contractors follow the same set of guidelines, they've got the same, you know, ability to be disciplined, they've got it, it all falls within the same system. I know, some companies don't do that as much.

> Just, you know, hey, you're on your own WCB number, I don't care if you get hurt, because it's not going to affect my numbers. And that definitely exists. My current company, not as much, but yeah, I've definitely seen that in the past. They'll give the high risk jobs to the contractors who have their own plates, their own WCB, let's not send our guy cuz there's a good chance that they might get hurt. So let's send that guy. I've definitely seen that in the past.

So far, I have mostly described employer power over workers in terms of the effects of employment structure on safety performance and how employers can use employment structures to defer risk to drivers while retaining control over their work. I now discuss how pay structures (i.e., the method someone is paid, not necessarily gross pay rates) impact driver safety performance and how some employers may modify pay structures to attempt to improve safety performance.

Here are some examples of thoughts by Participants 1, 11, 3 and 12 about pay as a factor in safety performance:

> Dave Elniski: [...] Do you think there's ways a company could [improve] from a safety perspective?
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> Participant 1: Compensation. Fairly compensate people.
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> Participant 11: [...] the fact that all of our our employees kind of follow that same safety system, all get paid hourly, they're actually encouraged to be safe by their individual groups, as opposed to cut corners, break rules, like you might see in other pay systems.

Dave Elniski: It's really interesting. So really, whether it's intentional or not, I'm hearing from you that the the way you pay your drivers is like a cornerstone of your safety system.

Participant 11 - 24:12: And it really is, it's something that I've advocated for for a long time. It's It's hard being a trucker and knowing that you're not getting paid for some of your tasks. You're stuck at an unloading site and you you're sitting there for three hours waiting to get unloaded and even though you're not getting paid for that, that's going to affect your your mental state of mind, which is going to affect how safe you act. So for me, that is key. In another thing pre trips, some companies will say okay, we're only going to pay you 15 minutes to do your pre trip on your truck and trailer as well as strapped down and tarp it. Well, that's an unrealistic expectation to be able to do that in 15 minutes, but if you know you're only getting paid 15 minutes for it, you'll rush through it. But if you know that, hey, I can take a full hour to do all my safety checks before I start in the morning, and they'll still get paid for that full hour, you're much more likely to actually do it properly.

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Dave Elniski - 35:23: Okay. So, do you think that individual companies, methods of paying drivers and other workers create barriers to positive safety performance?

Participant 12: Absolutely, absolutely. Can I give you a prime example? Okay, I had a company, they used to pay their employees per drop. So they would, they would, they would have multiple drops in a day. And they were paid based on the number of drops. And then they had speeding tickets, they had rear end collisions backing into things. They had vehicle collisions, like, like crazy. And looked at it,

and was looking at trending, doing a trend analysis and, and, you know, talking about, you know, the volume of of incidents, and, you know, photo radar tickets and things like that. And the question came up, well, how are you paying your employees? And they were paying their employees, like I said, per drop? And so talked about, well, if you're doing that, aren't you incentivizing your people to drive recklessly? And because they get paid more, you're incenting them to do that. Oh, we never thought about that. And so looked at it and said, well, why don't we just go figure out what's reasonable that they could do in in a day, and reverse that out to an hourly rate, and see if that makes a difference. And so they actually changed their pay structure to hourly, and saw a drastic reduction in the frequency with which they got had accidents, and, and that rear end things and all that kind of stuff. So, yeah.

Dave Elniski - 37:12: okay, [sic] so pay then as being like a factor in trucking safety, then?

Participant 12: Yeah, absolutely. It can be Yep.

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Dave Elniski - 25:09: Okay, so how does a person's socioeconomic status impact their safety and trucking? Well, like another, another way to put it would be like, you know, people who were less financially secure personally versus more does that affect their safety performance? And how.

Participant 3 - 25:29: It's possible if you got to make a dollar. Right? Yeah. Go you got this when you get it to where you're paying a driver by productivity, that he's

going to take steps that's going to maximize his productivity to maximize his paycheck. Now how he does that can kind of be a safety concern.

Many other similar examples were recorded in my interviews, both when questioning trucking safety professionals about pay as a safety barrier and the impact of a person's personal socioeconomic status on their safety performance. These responses indicate that pay and safety are seen as deeply interconnected to these professionals. Pay as a factor in safety is not a novel concept to carrier safety staff in Alberta. However, pay is not necessarily treated like a safety-related psychosocial issue uniformly throughout the industry's management, and carriers are known to manipulate pay for drivers based on their standing in the industry, such as lower rates for people new to Canada or those new in the industry. As a result, productivity-based pay systems persist and I am not aware of any attempts from regulators or industry advocacy organizations to further examine truck driver pay to improve highway safety performance, whether when related to NSC or OHS.

Participants 8, 11, and 12 all provided examples of how pay structures are actively modified for the purpose of improving safety performance. Participant 8, a consultant, described ways in which safety bonuses and other similar incentives have been modified by carriers to bring about more consistent, positive safety performance over the course of the year. Participant 11, a carrier employee, described time-based pay as a cornerstone of his OHSMS. Participant 12, another consultant, told a story (included above) where he worked with a carrier to improve safety metrics specifically by moving away from a per-delivery pay system. These examples further demonstrate how the relationship between pay and safety is understood by the safety side of Alberta's trucking industry and how some enlightened carriers incorporate pay system changes

into their OHSMS to bring about positive safety outcomes. These efforts are confined to individual carriers. It is possible this is an area where regulators could intervene to improve the benefits of individual carriers in the entire industry. However, by requiring employers to consider psychosocial hazards in their OHSMSs, I argue carriers that do not examine their pay systems as part of their OHSMS are not fully compliant with OHS legislation, whether provincially or federally regulated. It is possible more prescriptive OHS legislation could help by specifically requiring companies to consider the manner in which they compensate their workers during their hazard assessment activities.

Subtheme - Work refusals are an indicator of how an employer wields its power

In Alberta, whether federally or provincially regulated, workers have the right to refuse unsafe work under their respective OHS legislation (Government of Canada, 2022; Province of Alberta, 2023a). Both sets of legislation lay out a specific sequence of actions that are to take place between the worker, their employer, and, if they disagree and the issue escalates, the regulator. However, the legislation presses the worker into the role of activist in the sense that they must be courageous enough to refuse the work, able to withstand potential peer pressure from their coworkers and immediate supervisor, and be confident their employer will not punish them for exercising this right. This is all assuming the worker is aware they have this right which, since it is the employer's responsibility to make them aware of their OHS rights, is not always the case. As a result, how the employer decides to wield the power it has over its staff plays a role in how a work refusal may play out.

During the analysis of my interview data, work refusals emerged as discrete event thatcan be used to assess a company's attitudes towards its power over staff. I asked each interview participant specifically if they were aware of penalties drivers and other carrier staff face when

exercising their right to refuse. Most of them (ten out of twelve) said their current employer or clients comply with legislation and encourage their drivers to report unsafe situations as opposed to taking unnecessary risks. Here are some examples from Participants 11, 12, 3 and 6:

> Participant 11: I'm not going to be able to get out there to review the load myself. So we always trust the drivers.
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> Participant 12: Yeah, actually, this happened yesterday at a carrier and driver phoned in and stated that, due to the road conditions, and snow squalls that were happening, it wasn't safe to continue with the load, or continue moving, moving the product forward. Carrier dispatch responded sounds good, let us know when you're safe. And we will alert our customers. And so then ensuing result was that the carrier reached out to other drivers in the area, asked on their status, and asked if it was safe to proceed.
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> Participant 3: Depends on the refusal. To have a valid reason for refusing absolutely, there's no penalties.
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> Participant 6: Yeah, I mean, I can give you a couple. I can give you an example of a guy working in the in our yard he was a wash bay attendant a few years ago, and he basically refused because the temperature was close to zero. He refused to wash trucks out in the yard because he felt it was unsafe for not only himself but all the drivers going in the yard. So obviously that was accepted and we stopped doing it and changed our process. We're we're very strong.

The above quotes do not refer to the impact of a carrier's pay system on a driver refusing work. Carriers could say they honour a driver's right to refuse unsafe work; however, a work refusal will almost always result in a loss of productivity for a driver. For example, a driver refusing to drive to due to poor road conditions will have to park and wait, or a driver refusing to load a certain product because of unsafe conditions at a customer's facility will have to wait to be dispatched on another load. If a driver is paid based on their productivity, be it on distance driven or loads delivered, they will be sacrificing pay to refuse unsafe work unless the carrier has provisions in place to manage this. Some carriers do indeed account for this loss of productivity and compensate drivers for work refusal-induced delays as a way to improve safety outcomes. For example, Participant 11, a carrier safety manager who considers his company's time-based hourly pay system to be a cornerstone of his OHSMS, told me they would pay employee drivers and "even their [contract drivers] for delays of that type." Other participants, however, are not clear if drivers are forced to choose between refusing an unsafe task or higher pay.

Some of my participants did describe employer practices of coercing drivers into performing work tasks the drivers reported as being unsafe. Participant 10 describes management comments such as "if you're [the driver reporting the unsafe conditions] not going to do it, I'll find someone who will" as thinly veiled threats of pay or even job loss. Participant 7 described malevolent micromanagement practices in relation to a novice driver wishing to park due to snowy driving conditions:

> Participant 7: He was just hired on as a new hire just got his license within the last year and started hauling down into the states. He got to a location in a new city that he'd never been before, and was right within half an hour of running out of his legal

> limits, and phoned into dispatch to say he was going to park the truck, because he this was a new city and traffic congested times where he didn't really know where he was going. He was really tired and fatigued from focusing so much on the recent rough traffic and had come into snowy weather conditions. So all three of those things made him decide that he was going to shut down a half an hour early. And the carrier told him that if they didn't see the GPS moving in the next few minutes, he could kiss his next paycheck goodbye.

Negative incidents of employer power abuses do not tell the entire story of a carrier's safety practices. However, a work refusal presents an immediate challenge to operations and provides a moment for the company to put into action the provisions of its OHSMS. In other words, it is a real-time test of an employer's safety practices. If, by trying to deny the request by overpowering the driver's choice by threatening them with economic consequences, the employer has revealed major problems in its OHSMS.

It is important to note that not all carriers will necessarily have an employed safety professional. Some are too small to justify such a position and instead will have safety be the responsibility of another individual with other tasks, like a manager, dispatcher, or owner; they could also use a consultant to manage their OHSMS. However, some companies will simply elect to not staff the position in any way unless directed to do so by a regulator after an inspection, audit, or incident. Since I interviewed working trucking safety professionals, they are speaking about companies with active safety programs, and these individuals are aware of the negative consequences for punishing someone for exercising their right to refuse unsafe work. I did not conduct research into companies where such illegal and unethical practices are likely to be

common, and it is likely my research participants and study have not spoken with appropriate depth and emphasis on the degree to which employers will exert their power over staff by punishing them for refusing unsafe work.

Chapter Summary

Employers hold considerable power over their staff. Since personal finances largely dictate a person's ability to live freely in a capitalistic society like Canada, only those people who are financially secure can claim any sort of immunity from their employer's power over them. From my interviews, the effect of how an employer uses this power was seen as greatly influencing safety outcomes. Pay and employment structures were described as variables employers adjust for the purpose of finding an employer-favourable balance of control over work activities and liability. More safety-conscious employers sometimes modify pay systems for the purpose of improving safety. The way in which an employer handles a work refusal was also identified to gauge a company's OHSMS, although it is not possible to say from my study the degree to which Alberta's trucking industry is likely to handle a work refusal.

CHAPTER VI

SAFETY PROFESSIONALS BELIEVE IN THE IMPORTANCE OF THE WORK THEY DO

I asked my interview participants questions about their careers in trucking safety mostly for, first, the purpose of identifying barriers to the successful execution of their duties and, second, whether they believe their actions and careers have value in terms of improving safety outcomes. I learned that trucking safety professionals (i.e., each one of my participants) not only believed their work to be important and effective, they also all described at least one or more intrinsic motivators that make their work interesting to them. In other words, none of my participants thought of their work only as a means to a paycheque. Such sentiments were strong enough in my interview transcripts that warranted the creation of the theme for this chapter.

I argue that safety professionals believe the work they do is important to the safe operation of a trucking company, brings about positive safety outcomes (such as reduced collision and injury rates), and that the safety frameworks set forth in legislation (NSC and OHS) are valuable and valid. I also argue that trucking safety professionals find their work intrinsically rewarding. Figure 2 presents a visualization of this theme and its subthemes.

My interview participants generally viewed NSC as a valuable safety framework. The prescriptivity of NSC regulations was seen as a positive, as "removing the ambiguity definitely makes [...] roads safer" (Participant 7) and the belief that NSC improves highway safety were opinions expressed by Participants 1, 2, 7, 8, 9, and 10. The other participants did not state or imply the opposite; I did not identify text from their interview transcripts that communicated the same concept as directly.

Adding to the value of NSC, my participants also saw it as distinct from OHS. The following examples from Participants 9, 10, and 1 illustrate how some trucking safety professionals compartmentalize NSC and OHS systems:

> Participant 9: So the NSC end of it is, the vehicles and operating those in a professional manner. But OHS is you know, the more physical end of it, lifting properly, ergonomics. Being aware of surroundings, hazard assessment, things like that.
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> Participant 10: So we have a bunch of NCSO's out there and guys with a bunch of designation, you know that our OHS professional, which are really good at what they do in terms of you know, investigating a slip trips or fall or falling from heights or, or things of that nature. But when it comes to a crash, that is just not their, their forte.
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> Participant 1: I think that's where health and safety like OH&S has a great framework for safety. But driving is different. It's all of that safety. But there's everyone else to worry about. And you can't control them. Like the health and safety stuff is very much within your power to make sure that you've done your FLHA, you've done your pre trip, you've done all of these things. We have a safe work procedure for all of these things. But specific to driving, there's other people, there's other factors that you have no control over.

I have heard similar comments throughout my time in trucking safety. The specialized knowledge and skills perceived as necessary for effective carrier safety management have been described to me as missing in the curricula of various safety training and designation programs. Consequently, this has led organizations like the AMTA to produce NSC-specific training and designation programs meant to recognize the special skillset needed in a fleet safety manager (Alberta Motor Transport Association, 2020). This is especially interesting as Participants 1, 2, 4, 6, 7, 9 and 11 all described an OHSMS where the NSC and OHS components are integrated into each other as the ideal state of an trucking safety system. I do not interpret this as a contradiction but, rather, a calling for the recognition of NSC as a distinct form of safety knowledge and expertise that requires attention in an OHSMS as long as it is not lost amongst other forms of safety knowledge.

My interview participants further commented on their elevated view of their profession when discussing internal company dynamics around business planning. Participant 10 expressed his frustration over his employer's practice of bidding for work using unrealistic estimates for a driver's available time. This practice led to many instances of noncompliance with HOS regulations but, despite being employed in the role for about four years, he has not been able to change this practice. Participant 11 expressed frustration over the reluctance of his management to grow the safety department with the company, a practice that results both in an increased workload for his team and a dynamic of "us-and-them" between safety and management. Participant 7 claimed that bringing a safety expert into the meetings where work bids are drafted can help the company better estimate their costs and prevent future issues between safety and operations that results from when a company fails to "bid [a] job properly to begin with" (Participant 7). These comments show how safety professionals see business reasons as to why

they deserve greater access to management decision-making. This implies that management sets limits on the degree to which safety permeates the organization and, since they have the power to do so, often restrict safety from certain aspects of the organization, a sort of professional tokenization of safety managers that some of my participants keenly felt.

The participant comments also reveal dissatisfaction with the level of respect trucking safety professionals at times feel in their roles. Despite being longstanding and high-ranking, some of my participants seem to have felt as if they have hit a ceiling in terms of being taken seriously by upper management and ownership because they are in safety and not operations. For women in safety management positions, it is possible that the hierarchy between operations and safety, with safety less empowered than operations, creates an intersection where gender and professional identities result in greater limitations to career advancement in industrial settings.

The trucking safety professionals I interviewed also confidently expressed the efficacy they see in the OHSMSs they oversee. Here are some examples from Participants 1, 11, 4, and 9:

> Participant 1: I believe they work if the drivers buy into the program, if they're holistically believe in a culture of safety, rather than just going through the motions to satisfy and they're interpreted and followed and adhere to, yes, I think they make things safe.
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> Participant 11: I think it does, just for me, the number one thing is that having visibility and like drivers having visibility on how their actions affect the company, both in a negative and a positive respect. So, to me, safety is about education. So I want people to be aware of what is out there and what they can do to make themselves safer.

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Participant 4: Yes, it does. The accountability. And that's one thing that I'm very, I run a very tight ship here. I am very black and white. When it comes to the legislation, there is no gray area with me. So when we teach our drivers about the compliance about how important it is, these are the things that we talk about, because without the accountability, these drivers are the ones paying the fines.

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Participant 9: Currently, I think it does, but I think they have to work together. Occupational Health and Safety, I find sometimes it's overwhelming, but if he can present it more into a compliance and training, and the other thing I guess I've always wanted to practice is to be very careful and thorough with orientation, regarding the expectations of the worker, as well as the company regarding compliance and health and safety.

My participants did not express disillusionment with their roles and, instead, described their roles as critically important to their employer's operation of a safe and ethical transportation company. An antagonism between them and operational elements at their employers or, in the case of consultants, at their clients was evident throughout the interviews, implying a sort of thanklessness associated with their jobs. As a result, the motivation of trucking safety professionals in continuing their role was largely intrinsic.

Subtheme - Safety professionals' jobs are intrinsically motivating

I asked each of my participants what is the most rewarding part of their jobs at the end of each interview. The intention of this question was added on the advice of my committee for the

purpose of ending the interviews on a positive note. It also gave an opportunity for participants to share additional thoughts and often did lead to meaningful conversation that enhanced the dataset. However, what I noticed during my coding and thematic analysis was that each participant expressed some form of intrinsic motivation that makes their job rewarding to them. In other words, no one said they were just doing the job for the pay. Also, none of the participants gave an answer along the lines of wishing to save lives, which is sometimes a response I have heard from safety professionals when discussing the importance of their role. All of the rewards described were selfish in the sense that each trucking safety professional had a reason for doing the work that gave them great personal reward. I catagorized these rewards as challenge, engagement, legacy, and recognition.

Participants 1, 5, and 10 positively described the challenging nature of their jobs, even though 1 and 5, both women, identified their gender in ways that made their roles more challenging than they would be for their male counterparts. Participant 1 said she enjoys being "the underdog" in a male-dominated industry, was inspired by other women in the industry who represent themselves as strong leaders, and hopes to continue in the industry to see positive change. Participant 5 described the long hours her job requires as both exhausting and rewarding. Driven to better understand by "taking the time to learn the challenges of a driver" (Participant 5), the long hours were seen as necessary to produce the quality of work deserving of her pride. Participant 10 described some of the activities he does around managing his employer's safety profile which requires disputing tickets, paying some tickets at strategic times, and "playing a bit with the numbers" to deliver positive safety metrics. He described these activities as interesting from a technical perspective and, as a result, they contributed to the rewarding nature of his job.

Interestingly, such activities focus on compliance and not actual safety-related activities meant to improve safety performance outside of the construct of the safety profile.

I found the joy of watching people engage with their safety system to be the most consistently expressed intrinsic motivator amongst my research participants and was expressed in some manner by Participants 4, 5, 6, 7, 8, 9, 11, and 12. Engagement, in this context, is watching people interact with and take seriously the safety system and activities of the safety professional, and it was most often described in terms of education and training, including:

> Participant 11: [...] to me that role of safety is an educator, not an enforcer.
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> Participant 4: So that's the highlight for me is when they can get it and when they and when they're engaged in it.
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> Participant 7: That's the passion that keeps me going is is trying to educate people.
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> Participant 9: [...] I like seeing the improvement in the in the carrier profile. I like seeing the education process for drivers developing the quizzes and stuff. I like seeing positive hands on orientation program.

The joys of seeing their professional efforts taken up by their employer's or client's staff intersected with the next two forms of intrinsic motivation, legacy and recognition. Legacy, as in bringing about positive change and leaving a professional mark on the trucking industry in Alberta, was evident in remarks made by Participants 1, 2, 6, and 7. Sometimes legacy was presented as little victories over the course of regular work activities that give the person a sense that they are

"making a difference in one form or another" (Participant 2). In other examples, leaving a positive legacy meant creating a succession plan for a sustainable OHSMS and safety department like Participant 6:

> Participant 6: I came back to [current carrier] with a three and a half year arrangement to retire. So that's, that's my goal. My what's going to be the most rewarding to me by the time I retire? If I can do it, I guess a couple of things: reduce accidents drastically, which is what we've been able to do this year. Not all my not all my doing, team doing and probably some good luck somedays. So far, that's good this year. The other thing that I what I've always hoped and strive to do is create a team of people that don't rely on me to do the exact same things we're already doing. So I'm trying to, to make sure that the company is set up for success. So when I retire, the team is all set up.

Recognition, as a professional expert and as someone knowledgeable about the work performed by staff, was also presented as a rewarding aspect of being a trucking safety professional by Participants 2, 3, 5, 7, 9, and 10. Men and women both made comments that suggest safety professionals are, by default, not taken seriously or respected in the workplace and that a mark of their professional success is whether they are able to obtain respect from those they are trying to protect from occupational hazards. In addition, the ability of the safety professional to perform the actual tasks required of workers was also described as a way to obtain respect from staff, such as previous truck driving experience or being able to put on work clothes and properly secure a load to the deck of a flatbed trailer. Here are some examples from Participants 10, 2, and 3:

Participant 10: The best part of my job is when I have safety meetings with drivers, and, you know, whether a tractor trailer driver or bucket truck operator, or young labourer in a pickup truck, you know, when we're talking about driver safety and the importance of pre-trip inspections, and uh, cargo securement, and bringing some of my military experience into the discussion, that's kind of my favourite part of the job.

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Participant 2: [...] I'm I pretty honored to be you know, somewhat of a subject matter expertise within our division, or within our company [...]

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Participant 3: And, and what I noticed, I think that's a good thing for the employees to see is when a manager gets into a truck and does the same job.

In general, trucking safety professionals derive personal pleasure from the work they do beyond their remuneration. From my own time as a fleet safety manager and my current professional role as a safety advisor, I share in the same rewards expressed by the participants. I enjoy the challenge associated with having to learn new topics and enjoy watching the individuals I advise act upon my advice and, best of all, see positive results. The feeling of being recognized as a subject matter expert is a positive one, and I take great effort to preserve my professional integrity by being thorough in my analyses and advice-giving. Finally, a professional legacy matters to me as well. It is my hope that I can help improve the working conditions of truck drivers and other workers in transportation by working with employers to improve safety systems. I also hope to leave a professional legacy consisting of written documents - including this thesis and any

publications that may result from my academic career. Having written this out, it feels almost vain to seek such rewards. However, I, too, believe in the value of the work I do with Alberta-based employers beyond its ability to support my family financially and I have no qualms with enjoying personal satisfaction when others benefit as well. I can safely say, then, that the thoughts expressed by my research participants are consistent with my own experiences as a trucking safety professional.

Chapter Summary

The trucking safety professionals I interviewed spoke highly of the value in the work they do. OHSMSs and the regulatory frameworks behind them are seen as effective, albeit imperfect, ways to reduce the risk to carrier staff and the public that is inherent in the operations of a trucking company. In addition to seeing value in their work, these professionals also find their work to be intrinsically rewarding. They hope to see their staff engage with their efforts, leave a positive mark on the industry, bring about meaningful positive change in terms of safety outcomes, and be recognized as experts in their field. Thinking about my own career in transportation safety, these thoughts are generally aligned with my own experiences and hope this thesis contributes to my professional development and that of the trucking industry.

CHAPTER VII

THE PERSONAL IS PROFESSIONAL

The 1960s saw the growth of The Women's Liberation Movement during the Second Wave in Western societies (Britannica, 2023). During this time, the idea emerged that the "personal is political", a concept that is attributed to the essay "The Personal Is Political" by Carol Hanisch (1969). The following excerpt explains the idea in Hanisch's own words:

> For this paper I want to stick pretty close to an aspect of the Left debate commonly talked about—namely "therapy" vs. "therapy and politics." Another name for it is "personal" vs. "political" and it has other names, I suspect, as it has developed across the country. [...] The very word "therapy" is obviously a misnomer if carried to its logical conclusion. Therapy assumes that someone is sick and that there is a cure, e.g., a personal solution. I am greatly offended that I or any other woman is thought to need therapy in the first place. Women are messed over, not messed up! *We need to change the objective conditions, not adjust to them*. [emphasis added] Therapy is adjusting to your bad personal alternative.
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> (Hanisch, 1969, 1)

Hanisch, in the above quote, argues an idea that employers today continue to attempt to stifle and discredit: society can change to benefit the oppressed, and it does not have to be the job of the disadvantaged to change their personal circumstances in order for them to survive. Of course, such an idea runs contrary to the deeply held Western capitalistic and neoliberal love for rugged individualism that posits that the individual is responsible for their own situation - do not bother organizations, institutions, systems, and those with power for help with your own problems.

In the same essay, Hanisch later writes:

> This is part of one of the most important theories we are beginning to articulate. We call it "the pro-woman line." What it says basically is that women are really neat people. The bad things that are said about us as women are either myths (women are stupid), tactics women use to struggle individually (women are bitches), or are actually things that we want to carry into the new society and want men to share too (women are sensitive, emotional). Women as oppressed people act out of necessity (act dumb in the presence of men), not out of choice. Women have developed great shuffling techniques for their own survival (look pretty and giggle to get or keep a job or man) which should be used when necessary until such time as the power of unity can take its place. Women are smart not to struggle alone (as are blacks and workers). It is no worse to be in the home than in the rat race of the job world. They are both bad. Women, like blacks, workers, must stop blaming ourselves for our "failures."
>
> (1)

There is great political savvy in Hanisch stating that women's patriarchal coping strategies listed in the above excerpt are perfectly acceptable for use until conditions improve. It recognizes the realities of a person's situation and the importance of their safety amidst a push for large-scale improvements that are bigger than the individual. When making an attempt to improve the conditions for a particular group of people, Hanisch is saying it is vital to not expect all individuals within the group to compromise their own safety and security, and not expect all people to become activists.

Hanisch's ideas and those of her fellow activists from The Women's Liberation Movement broadened the scope of political activism by arguing that there is nothing about a person's personal life that is not politically relevant. Therefore, we can discuss reproductive freedom and sexuality in the same public forums we discuss taxation and defense policy. Hanisch's essay advocated for the changing of systems, not the changing of individuals, and cemented the slogan "the personal is political" into the feminist lexicon.

A major theme developed over the course of my interviews: *the personal is professional*. I have chosen to title my theme this way because my interview findings and personal experience in trucking safety have led to the conclusion that it is not practical or even possible to compartmentalize the personal lives of staff from their professional lives. Whether such effort is on the part of staff or employer-driven, the personal factors also affect their experience within an OHSMS. Hanisch describes the personal as political to draw attention to the omission of certain aspects of peoples' lives from public discourse, an omission that benefits existing power structures. It is fitting for me to borrow from Hanisch since there exists power dynamics within Albertan and, indeed, North American trucking that benefit from the omission of certain personal psychosocial details from discourse concerning worker and driver safety. It is too convenient and simplistic to blame an individual's actions as a sole causal factor in poor safety performance when similar incidents are seen throughout an industry. In this chapter, I argue, to paraphrase Hanisch, that systems need to adapt to the diversity of their workforce instead of demanding their workforce adjust to a predetermined concept of what an ideal worker, like a truck driver, should be. An OHSMS that fails to examine psychosocial factors is one that fails to account for diversity in its hazard control efforts. Figure 3 presents a visualization of this theme and its subthemes.

My interview participants expressed that safety systems can and should address cultural differences present in the workforce their OHSMS is meant to protect. These comments generally arose out of our discussions on the impact of worker ethnicity on safety performance. They were not necessarily indicative of whether the safety professional speaking actually was taking steps in their OHSMS to address culture or if it was just something they thought could and should be done. Here are examples of safety professionals taking action to address the needs of different cultures from Participants 3, 4, and 6:

> Participant 3: Yeah, it can be one of the things with foreign foreign drivers just they want to please, they have a huge desire to please. So, lots of times they may take unnecessary risks to do that. So one of the hardest things you have to teach your driver is when to say no.
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> Participant 4: [...] we've had some gentlemen come in, who are Muslim, so at a certain time of the day, they have to take a break in order for their prayers. And we've accommodated that, like, it's not been an issue for us.
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> Participant 6: But if I encountered someone like that now, where we have a large staff that can speak multiple languages, I would bring someone into the conversation.

Accommodations along the lines of providing assistance in languages besides English and in providing time for rituals, like daily prayer or religious holidays, were not seen as unreasonable ways carriers can improve inclusivity. These actions, however, were not likely only being taken

by the company's safety department and otherwise ignored by the rest of the company. If a driver needed a day off for religious reasons, operations would also need to be aware and agreeable. As a result, they are not strictly safety-related changes being made to a company for the purpose of improving safety outcomes but are, instead, intraorganizational changes likely made to improve retention and workplace culture, or even out of fear of negative consequences if the carrier were to be accused of discrimination. Since OHS in Alberta requires employers to take action to protect the psychological wellbeing of their workforce, I argue that such examples do indeed improve safety performance by reducing risk from psychosocial hazards that could result from a lack of accommodation. Other interview participants commented on the importance of addressing culture through an OHSMS, without providing specific examples of how they may be doing this themselves, but shows an understanding of the importance of considering psychological wellbeing in safety management.

I also asked my interview participants about the impacts of being bound to an employer when a person is employed as a Temporary Foreign Worker (TFW). Being a TFW is working under a legal employment arrangement in Canada where someone is allowed entry into the country to perform a specific type of labour which has already been pre-arranged with their employer. Canada provides TFWs with either closed or open work permits, where those on a closed work permit may only work for the employer that originally sponsored them while in Canada. Should the TFW lose their job, they cannot work for another company until they have reapplied for another closed work permit. Truck driver TFWs are, as of this writing, only allowed to enter Canada on a closed, or employer-specific, work permit (Government of Canada, 2023a).

Interview participants claim that TFWs are more compliant than their Canadian citizen or permanent resident coworkers: for better or for worse. Unsurprisingly, this was generally

attributed to them being bound to their employer and, as a result, more vulnerable than other workers who have the ability to quit as a method to handle undesirable working conditions. Implying negative safety outcomes from such work arrangements, Participant 3 rhetorically stated "Well, you have a disgruntled driver, and he can't leave. How would that affect you?" Other participants commented on the damage such working relationships can have on the individuals involved by having people "put in a position where they don't have choices" (Participant 9) and brought up ethical concerns from being in a safety position at a company that uses TFWs to fill labour positions, such as Participant 6 who stated that exploitative employment of TFWs was "one of the reasons why I didn't stay [at a carrier] long."

The TFW program was not painted entirely negatively, though, from a safety professional's perspective. As stated above, TFWs were described as being more compliant with the rules and wishes of their employer. For an employer with a poor OHSMS and a tendency to exploit the TFW, it was noted that the TFW would "feel pretty stuck in this place where they have to stay and or potentially not have a job" (Participant 2) and lack the ability to speak up when there are safety concerns. However, if the employer tends to treat TFWs well and show concern for their safety, they the willingness of a TFW to please their employer so they can keep their job could result in more positive safety outcomes. Participant 12 in particular spoke about how the culture and ethics of the employer can greatly impact the experience of TFWs:

> Participant 12: Okay, so I actually have direct experience and knowledge of this. In my previous employment, we did do, we did do LMIAs. And we did bring people on board and use an LMA that came from another carrier. And I believe that, you know, we, as an organization, did a great job of including and treating those individuals under a work permit the same as an employee who could move from

> company to company. And when we brought people in that had to work permit was one company and we gave them a work permit and transferred that financial responsibility onto ourselves. The stories that I heard were not awesome. They were treated poorly. They were forced to perform work and not paid for work. They were asked to use equipment in subpar condition. Their management style was we can send you home whenever we want. So just go to work and don't make waves were some of the comments that were said to me about their previous employment.

The above excerpt concisely shows the powerlessness and vulnerability of TFWs at trucking companies in Canada. Since they have less freedom to choose their employment than other workers, they depend on their employer to provide positive working conditions for them and have less of an ability to exercise the safety and labour rights to which they are entitled (Government of Canada, 2023b).

TFWs and the consideration of a person's culture in safety management shows how the personal impacts the professional. Culture and immigration status are aspects of a person's personal life. It is factors like these that Crenshaw (1991) describes in her work on intersectionality and to think such factors do not affect a person as a professional is firmly refuted by my interview participants, similar to how Crenshaw describes intersecting identities as influencing how a person experiences a society or, in my case, a system. Hanisch (1969) similarly describes the relationship between politics and personal factors. I agree, too, as my experience in fleet safety management showed me how it is not possible to expect people to leave their personal issues at home and compartmentalize their lives in a way that is convenient for the employer. The next sections of this chapter explore this idea in greater detail by more specifically examining the personal and

professional dynamics present in age, immigrant integration, traditional gender binaries, and socioeconomics.

Subtheme - A safety professional's age impacts their professional life

The trucking safety professionals I interviewed were intentionally asked to discuss the impact of various personal attributes of individuals on safety performance. However, when I asked about what barriers or enhancements exist that negatively or positively impact them in the execution of their duties, their age was mentioned enough to include these data in this chapter as a subtheme even though this chapter.

Age was described both positively and negatively in its impact on efficacy as a safety professional. Participant 11 described his older age as a reason why he has more confidence in his ability to advocate for what he needs to be successful in his role and that, since he is older, he has "more clout to push." Participant 9, a woman with over 23 years of experience as a trucking safety professional, felt that age has impacted the way she is perceived by new hires to whom she provides orientation and training. She said that being older has, in general, made it easier to be a safety professional. Similarly, Participant 5 noted how being "of younger age status" has caused her to be challenged in her knowledge and authority:

> Participant 5: Like, I'll sit in a room with 15 new hires, they're all experienced, some of them have driven longer than I've been alive. And you know, you're [participant 5's name], you're in your 30s, and you're wearing high heels. What on earth are you going to teach me in the next three to five days of training?

In my own experience as a fleet safety manager, a role I held in my late twenties, I often felt my relatively young age was a reason why I was sometimes dismissed by workers, other

drivers, and management. I compensated for this by talking about my experiences as a driver that highlighted my competency. I also went out of my way to compliment the wisdom of those older than me with whom I needed to work in an effort to build my social capital in the organization under my internalized assumption that I could spend this capital when I needed those older than me to follow my rules or take my ideas seriously. Now, my participants, in alignment with my own experiences, cited other factors and system issues within the trucking industry are far more impactful on safety outcomes than just the perceived age of the safety professional tasked with overseeing an OHSMS. However, it is important to see that younger safety professionals may hustle to gain acceptance whereas older ones may rest on their laurels when the industry should, instead, value ideas and competency.

Subtheme - Assimilation into carrier and Canadian culture positively impacts safety

Interview participants expressed that differences between newcomers and domestic Canadians impacts the personal safety of these newcomers. Sometimes this was cited for reasons related to weather by Participants 1 and 4:

> Participant 1: But for a lot of newcomers to Canada that have been here for maybe under that five to seven year range, they're not quite as prepared for some of those extreme weather swings that we get. And I understand that they get nervous driving on sheets of ice, versus people that will drive in any conditions like adverse weather conditions are no problem. So it's just, I'm having to tailor it for each driver.
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> Participant 4: Will impact the safety, yes, only during the winter, a lot of our different races are not used to the cold northern Alberta winters. So it does present

a bit of a safety problem for environmental things. It can affect their ability to be productive on site and miss things, or have little more accidents.

Participant 3 described the "huge desire to please" of foreign drivers as a reason why they may experience negative safety outcomes that domestic Canadians are less likely to. Truck drivers are often in positions where they are interacting with an authority figure that is not under the direction of their employer, like a warehouse manager at a customer's site. As a result, carriers rely on the judgement and comportment of their drivers to not only perform their work tasks properly but also to bring about positive safety outcomes. In other words, safety for truck drivers is often presented as a driver's responsibility which, like any worker, it is to a degree. Participant 3 said foreign drivers have "generally a high respect for authority than Western culture" and "will tend to bend more" when faced with pressure from a customer to perform an unsafe act. This speaks to the tendency of trucking OHSMSs to require workers to be self-advocates with regards to their own safety.

My interview participants made comments throughout the interviews that, either directly or indirectly, suggested integration into Canadian culture positively impacts safety performance for individual workers in the trucking industry. These comments were made while often nearly simultaneously making other comments suggesting that a person's culture does not impact their safety and that it is, instead, attributes about the individual person that matter more than their culture or other factors related to their identity. I surmise that when such comments were made, that the interviewee was trying to establish themselves as non-judgemental of other cultures. Personal communication skills are common ways expressed by Participants 2, 3, 7 and 9:

Dave Elniski: So how would a person's like, race, ethnicity, culture impact their safety?

Participant 2: Yeah. Okay. Again, maybe, if, if English isn't their first language?

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Dave Elniski: So then, how does a person's race or ethnicity impact their safety in trucking?

Participant 3 - 19:18: Safety wise, if there's a language barrier. You might have miscommunication.

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Dave Elniski - 37:55: What about a person's race, ethnicity or culture in terms of its impact on safety? Like, are there ways trucking safety systems going to address race and ethnicity related safety concerns?

Participant 7 - 38:08: Ah, that is a great question. I think that can go back into the equity of the, of the safety program. The original program, and the requirements for speaking English are a huge thing.

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Dave Elniski - 40:54: And what barriers do you find you face in the fulfilment of your job's duties as a safety professional?

Participant 9 - 41:04: More recently, of course, there's more cultural and language barriers.

The idea that the individual and not their culture is ultimately what matters was reflected throughout my interviews. My participants, when asked directly, were reluctant to generalize a

person's attributes based on their cultural identity and instead prefer to examine "their skill set [,] what we know about them so far" (Particpant 6), and "their experience" (Participant 5) when judging the performance and suitability of truck drivers. I find this consistent with what I have experienced in the trucking industry. People tend not to want to make comments about any specific culture when asked directly but may instead make generalize to explain their social observations and even to justify their professional decisions at another time. I am not saying here that it is either right or wrong to make cultural generalizations in the management of an OHSMS nor to claim to be culturally blind and instead claim only the individual's attributes are what matter. I argue that this is worth examining how best to blend knowledge about an individual with accurate knowledge about their culture not based on harmful stereotypes in the interest of improving safety performance for those who are new to a country.

Attempts at resolving communication barriers and instilling the Western value of being willing to self-advocate and challenge authority was the most common way trucking safety professionals described practicing equity in their OHSMSs. However, individuals more integrated into Canada in the sense that they better understand Canadian English and societal norms were considered more desirable, from a safety perspective, as it was believed they would be less likely to experience negative safety outcomes. In this way, safety professionals wish to influence their organization to preferentially hire and retain individuals who are better communicators, a phenomenon that I imagine is more noticeable at carriers with less resources dedicated for safety since they would have less of an ability to provide one-on-one coaching to newcomers.

Subtheme - Masculinity versus femininity impacts personal safety (but is not really addressed)

The statement "gender is a factor in safety" should not come as a surprise to safety professionals operating in Alberta, especially since OHS legislation now requires the consideration of psychosocial hazards. Yet, only half of my participants, when asked if gender has an impact on a person's safety in the workplace, positively responded examples. Based on tone and context, I assume those who did not provide examples do not necessarily see gender as outside of the concern of an OHSMS but, like the previous section, prefer a gender-blind approach that considers individuals as discrete units so as not to bring larger social and cultural complexities into their professional practice. Those participants that did recognize gender as a factor, their responses can best be summarized as believing women are safer and more compliant than their male counterparts, that women are more at risk from psychosocial hazards, and that women safety professionals experience additional challenges. These are demonstrated by the following narratives:

Women tend to be safer and more compliant:

Participant 1: I think women have a more self conscious or self safety conscious for both ourselves and those around us. I feel like we just have that a little but more of that nurturing, need to make sure that everyone is safe.

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Participant 3: Males tend to be more cowboy a little bit more aggressive. And then females. Females tend to be more careful. You know, exactly the opposite.

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Participant 7: I've gotten accustomed to finding less violations on female drivers I've done inspections out in the field, and watching the drivers of the vehicles, I've

seen the general statement that females are doing more thorough vehicle inspections are willing to learn. And as soon as you start chatting with them about their role in trucking, a lot of them will defend, they feel like they have to defend that they deserve to be there almost. So they're, they're really trying to prove it. And that's seen when we look at their inspection results as we're doing audits.

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Women are more at risk from psychosocial hazards:

Participant 11: The physical side, I don't really see a huge difference. Potentially the harassment side of things there definitely is. You know, being a woman in trucking is still relatively new relatively, you know, I won't I don't want to say unique but a lot of individuals in the industry find it a novelty to have either women in trucking or transgender people in ttrucking. So from, from that side of the safety system, I definitely do see a difference in that. It is easier to be a cis-man in trucking, then pretty much anything else.

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Participant 2: Yeah, I think so. I think, you know, PPE not fitting properly. And we did a huge survey with a company recently on on what are some of the things that you know, especially for females, like a safety vest, how do we get them to fit properly? And, you know, making sure that we have all ranges of sizes, for gloves and VAs and hard hats and that sort of thing? So I think that's I think the company has done well at at, you know, surveying and making sure that we have the right tools for them.

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Participant 5: I mean, there's been comments in previous positions, where the ability of that individual was questioned based on their gender, because they were in the opposite gender environment, but not an official concern or case or anything has been brought to me and in my career.

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Women safety professionals face additional challenges:

Participant 1: I also like being a woman in a male dominant industry and being strong and my opinions. And I mean, it doesn't always work out in my favor. And it's not always easy, but it's good. It's challenging, very challenging [...] I definitely think that there's a level of thick skin that's needed.

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Participant 2: I've had some judgments made on me, myself, just being young, and maybe, maybe I'm looking into this too much, but female. And I can probably see if I'm feeling that way, how potentially some people are some females driving me also feel something similar. And I could, again, I haven't witnessed this myself, but if I'm feeling it, it's likely that other people are. But you know, the whole, I guess maybe you don't want to speak up as much because you know, you just want to prove that you can do the job.

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Participant 5: I've been challenged many times, you know, being a female and of younger age status. You know, what do you know about trucking? You know, you don't have a class one, what are you going to teach me? And it's, you know, it's it's taken many, many years, but I breached that barrier.

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> Participant 9: More recently, of course, there's more cultural and language barriers, because I see, and it's not one sided, necessarily, me being a female, some cultures don't, generally don't have a respect for a female in a position of power. So sometimes it's a bit of a struggle for them to realize that, you know, I know what I'm doing, I know what I'm talking about. And sometimes it takes a little longer for them to realize I do have the ability to enforce discipline and to require specific training.

The consensus amongst my participants around gender in trucking safety was that not enough is being done to bring gendered concerns into discussions on safety management. One of the barriers to bringing gender into OHS management is the division and prioritization of safety systems that often exists within carriers: NSC versus and over OHS. Some companies, especially those with fewer resources allocated to safety and who believe regulatory compliance is the ultimate safety goal, are compliance-centric and may give the lion's share of these resources to their NSC program. Such a safety environment at a carrier will do little to address gender-related safety concerns since NSC is a prescriptive safety framework that does little to address psychosocial hazards such as harassment, does not specifically address gender in safety, and does not address whether there are adequate protections are in place for the personal security of drivers when they are on the road. This issue was noticed by interview participants as well who commented on the lack of infrastructure in place to make the industry a truly welcoming place for women, at least. Walzer's (1983) description of equality as freedom from domination is particularly fitting here, as we see how a patriarchal society's neglecting of women's safety needs

in the design of highway infrastructure and trucking facility amenities perpetuates the unequal treatment of women in the trucking industry.

My interview participants noticed examples of how gender impacts safety, whether it is personal protective equipment (PPE) not being designed for women's bodies, or the lack of meaningful changes being made to help women stay in the industry, such as truck stops and customer facilities that are designed to address concerns related to hygiene and personal security. Lack of action at the industry level to address gendered safety concerns is not simply the result of ignorance. Given how trucking companies often rely on infrastructure they do not own and directly control, such as highways, rest stops, and customer facilities. The meaningful change to address gender's impact on the safety of carrier staff and drivers will ultimately require systemic changes, such as finding ways to incentivize carriers to build the psychosocial side of their OHSMSs by integrating NSC and OHS regulatory activities, and modifying business norms to increase the minimum acceptable standard for truck driver amenities provided by business to truck drivers who are visiting their site to load or unload product.

Subtheme - A worker's personal stress has a strong impact on their safety performance, which should be considered by the safety system

Personal socioeconomics is another aspect of the personal that impacts the professional. In Chapter VI, I discussed the impacts of pay systems on safety outcomes and how my interview participants believe the way in which a carrier pays a driver can impact the company's safety performance. Gross pay amounts and the way a person is paid (i.e., salary, hourly, by-the-mile driven, etc.) both greatly impact a person's socioeconomic status. Higher status is attributed to those who draw in higher overall pay amounts. The way in which this pay is earned also impacts socioeconomic status. A long haul truck driver may earn a relatively high overall annual pay

amount (such as $70,000-$90,000 CAD for a full-time long-haul trucker) but, if they have dependents, their higher earnings will be offset by the costs associated with care for their dependents when they are on the road. For myself, being home daily and earning less than many truckers is a better financial arrangement because I can participate in household duties which, as a result, makes it easier for my partner to also work and for our household to spend less on childcare. Similarly, someone with high but volatile annual earnings may be worse off financially than someone who is close to home with more stable employment. The personal circumstances of an individual worker's life greatly impact how good of a deal any one employment scenario may be. As a result, a single type of work will be received very differently by different people and, as a person's personal circumstances change, even by the same person over time. The degree to which a society empowers individuals equally, in the way Anderson (1999) describes democratic equality, will further impact the financial security of individuals, especially as views differ greatly on what the minimum level of resources available to individuals should be.

My interview participants described the personal stress a person may be under from factors outside of their work life as stress that needs to be considered by an employer's OHSMS, but that OHSMSs generally ignore this source of risk. In some ways, this is nothing new in trucking. Participant 3, who had extensive work experience as a trucker before entering into fleet safety, noted "issues outside of work and so on and so forth, that is going to affect their work performance" and, gruffly, that "You need to get your head right, for what you want to get behind, you know, 30,000 pounds of vehicle." I have heard similar sentiments throughout my time as a trucker and a fleet safety professional. An employer directing someone to self-declare their fitness and any personal issues that could affect their safe driving abilities is problematic, since it defers risk from the employer to the worker. There are myriad reasons why someone does not want to self-report,

especially if doing so could impact their pay. Based on my experiences, this is a paradox enacted daily in trucking companies throughout North America: drivers are required to figure out for themselves their employer's ideal balance between productivity and compliance, between getting paid to get the load where it needs to go as quickly as possible while being expected to stop working for compliance and safety reasons even when they are not paid to do so.

Pay is related to productivity. Productivity can impact safety outcomes such as driving when fatigued or when the road conditions are unsafe. Necessarily, a person's finances impact their safety. Participants 3, 4, 5, 6, 7, and 11 all described the personal stress a worker is facing and suggest that stress should be considered by trucking OHSMSs. Here are some examples from Participants 5, 6 and 7:

> Participant 5: I think that when you get to a point where someone is an individual is suffering, economically, they may have it instilled in them to push the envelope a little bit in terms of hours of service and taking shortcuts at work, just due to financial stress or burdens that they have outside the workplace.
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> Participant 6: [...] we've got guys well in their 70s that are still driving because they just cannot afford not to drive.
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> Participant 7: The drivers that are rewarded based off of performance, whether it's by the mile or by the load, are not incentivized to perform pre trip inspections, to follow hours of service rules, to make smart decisions when road conditions are more or less desirable. The drivers who are paid by the hour, honor percent in those cases, the amount of fatigue violations and audits that I find are drastically reduced.

> There, they're not worried about trying to maximize how much that they can move the truck to get paid. They incentivize making sure that they're not a hazard on the road.

The awareness of how a person's individual level of stress can impact their occupational safety is understood by some trucking safety professionals. Despite this awareness, OHSMSs in the trucking industry appear to be lacking in their ability to recognize and address this stress beyond asking drivers during "toolboxes [a name for a short jobsite-specific safety meeting] and safety meetings [...] are you fit for duty?" (Participant 2). Some safety professionals describe creating a workplace "culture that people are willing to speak up when they think that something might affect them during their job" (Participant 2) as their plan of action in an effort to better address workers' personal stressors. Besides these efforts, I was not able to identify any other ways in which trucking safety professionals or OHSMSs were actively addressing this type of workplace hazard.

Chapter Summary

Based on the interviews and my own experience, the trucking industry is well-aware of the risks posed by intersectional identity factors including gender, socioeconomic status, and ethnicity. Following a narrative that suits Western neoliberalism however, places the onus on workers for managing this risk by asking them to separate their personal and professional lives. The industry creates an ideal model of what a competent and profitable truck driver (or other worker) should be that aligns with an identity built by those who dominate the industry, and then endeavours to enforce this model amongst a diverse workforce. Since workers are tasked with compartmentalising their personal and professional lives, a failure to live up to this model is a fault

of the individual worker, not the industry,. By “industry”, I refer to carrier managers and owners , people such as government officials that oversee industry regulations, industry associations that try to control the public’s perception of the trucking, and even individual trucker influencers who use their platforms to perpetuate the model of the ideal, impersonal worker. I imagine similar occurrences take place in most other occupations in Western capitalist societies.

The industry will tend to fail in recruiting and retaining individuals who match its idea of an ideal driver or worker since it assumes it is possible to achieve homogeneity in a workforce that come from heterogeneous populations. Yes, we can take learnings from specific cultures, genders, and socioeconomics for the purpose of better understanding the workforce. However, OHSMSs still need the ability to work at the level of the individual worker and consider how their position in life, both personal and professional, may impact safety outcomes for them and those around them.

CHAPTER VIII

EQUITY AND EQUALITY, AS WAYS TO GET TO EQUALITY, ARE A SPECTRUM, NOT A DICHOTOMY

Figure 6 shows a common image used to describe the difference between equity and equality. The image depicts people of different height attempting to watch a baseball game over a fence. In the equality side of the image, each person is given the same single box to stand on which allows all but the shortest to see the game. In this image, seeing the game is the desired outcome and the fence represents a barrier to inclusivity, like how washrooms that require access via stairs prevent those with mobility issues from accessing them.

On the equity side, different boxes have been redistributed to allow for everyone to see over the fence and enjoy the game. This picture does a great job in showing how an approach of equality may lead to unequal results (i.e., everyone getting one box does not mean everyone sees over the fence) and how applied inequality, or equity, brings about equal outcomes (i.e., everyone gets to see over the fence). The image is strong in its ability to concisely present the difference between equality and equity.

After completing my interviews, however, I now look at Figure 6 differently. It is an excellent resource at depicting the advantages of equity over equality when trying to bring about equal outcomes; but, it is too simple. It presents equality and equity as a dichotomy, presenting these topics to the viewer as if an all-of-one-and-none-of-the-other must be the approach taken. It also, perhaps ironically, uses a human-made fence to illustrate a barrier to inclusivity which leads me to wonder why we do not focus on removing the fence than on finding ways to see over it, or perhaps empowering the over-fencers so they can afford seats in the arena. However, it is the dichotomy aspect of the image of which I am most critical because it is symbolic of the way many

people discuss equality and equity in professional spaces, such as Alberta's trucking industry. The emphasis of the differences between these concepts makes it seem as if they are mutually exclusive. In this chapter, I argue this is not the case and that it is possible and, furthermore, beneficial to look at equity and equality as a spectrum. By thinking this way, it is possible to look at a discrete activity in an organization where equal outcomes are ideal and decide if the best approach to bring about these outcomes is one of equity, equality, or a combination of these approaches, an idea I have described visually in Figure 5.

OHSMSs Are All About Equality

OHSMSs are meant to produce equal outcomes. This is because the ultimate goal of such a system is for the organization in which it is implemented to have zero incidents: no injuries, no collisions, no fatalities, no types of loss. OHSMSs, in theory and when they apply from a legislation perspective, do not accept different outcomes for different demographics or types of employment. Of course, these systems are not perfect at bringing about these outcomes and the work in safety is all about continual improvement. Furthermore, different industries have different incident rates which are often attributed to the type of work being performed. OHS legislation pays little attention to how an employer gets to a place of no incidents, leaving contemporary mainstream acceptance and understanding of ideas like intersectionality (Crenshaw, 1991), gender equality through system design (Bohnet, 2016), and power's role in equality (Walzer, 1983) in a position to greatly impact employment and safety equity within an industry.

The question that safety professionals try to answer, at least for those whose job does not consist solely of achieving documented compliance with a standard or regulation, is what is the best way to bring about this equal outcome of zero incidents? As discussed in the Introduction and in Figure 4, I argue that the concepts of equality and equity are useful for categorizing the

different types of approaches to achieve this outcome. Therefore, we can take an equity-based approach or an equality based approach. With these different approaches in mind, I believe a way we can see the different value of either approach is to determine the degree to which compromise is appropriate (if at all). And, by compromise, I am referring to changing organizational policies and aspects of the OHSMS based on the unique intersectional identities of individual truckers.

Compromise is a bad word in the safety profession. An example of a slogan that negatively depicts modifying safety rules, originally attributed to the US' OSHA and that is commonly shared by safety professionals on social media platforms like LinkedIn, is "Asking me to overlook a simple safety violation would be asking me to compromise my entire attitude toward the value of your life" (Hootman et al., 2001, 168). The spirit of this quote is to emphasize the importance of never bending the rules for the sake of convenience and that the enforcement of even the most seemingly insignificant safety rule is not about power but is, instead, about compassion for those that may be negatively affected by procedural shortcuts. In other words, a safety professional should never compromise. While I understand the idea being expressed in this slogan and agree with the prioritization of safety ahead of expediency, I think it also is indicative of dichotomous and prescriptive thinking that can be detrimental to positive growth in OHSMS development. I do not necessarily see compromise as all good or all bad but, rather, as a tool that can be used to knowingly modify an OHSMS for the purpose of achieving the system's objectives of reducing the occurrence of incidents. Compromise, in this sense, means we attempt to learn more about the diversity of our workforce and then make changes based on our findings for the purpose of improving the safety performance of those most likely to suffer negative safety outcomes. It is not about changing the system to suit management or operations; it is about not turning the OHSMS into an untouchable idol that is beyond criticism. Unfortunately, I have seen safety professionals

take a militant attitude towards their OHSMS and, as a result, view any form of change and compromise as unacceptable without seeing if the proposed change could be a better way of bringing about positive safety outcomes - even if it does mean changing their system. Sometimes safety professionals get so caught up in compliance-related activities that we forget to take a step back and remember what it is that we are actually trying to achieve. An OHSMS is just the best way we have, at the moment, to create a safety workplace; doing the compliance work of the OHSMS is not the safety outcome itself, even if compliance-related documentation is the measure used by regulators to assess a company's safety performance. What we are actually trying to do is prevent incidents. If we can modify our OHSMS for the purpose of better achieving this goal, then we should be quick to do so. Compromise that supports such activities is, therefore, a positive thing.

I also associate compromise with equity (as detailed in Figure 4, above). If it never makes sense to break a safety rule then the rule must apply equally across the workforce. If, however, we can break a safety rule for an individual to boost their safety performance without negatively affecting the safety of others, then it makes sense to break the rule for that individual, which is based on equity. If we want to bring about the equal outcome of no incidents, we can choose equality (no compromise) or equity (compromise) to guide the safety professional's approach. It is important to note this does not mean an all-equity or all-equality approach is taken to safety management. As depicted in Figure 5 (above), some parts of the safety system will never allow for compromise, such as making sure individuals have the correct class of licence for the vehicles they drive. Others, though, like the language in which safety material is communicated to staff, could be modified to better improve safety performance. While employers in Alberta may only have to provide material in English to their staff, if they are aware that many of their staff members

are not proficient in English they could then choose to offer training and resources in the first language of these individuals. This can improve the comprehension of important safety rules for these staff members. However, there are times when it is more important to ensure staff learn a basic level of English, such as the necessary proficiency to read road signs to be able to operate as a trucker in Canada.

This is what, arguably, makes viewing equity and equality as a spectrum instead of as a dichotomy a more useful model. Safety professionals do not have to choose one or the other when deciding how to administer their system. They can, instead, slot their OHSMS somewhere along the spectrum that is appropriate for their workforce and best-suited to reduce negative incidents. Data from my interviews with trucking safety professionals supports the idea that equity and equality are best represented as a spectrum, not a dichotomy.

Equity, Equality, and Trucking Safety Professionals

The title of this section is not a subtheme like section titles are in the preceding four chapters. I was not able to create a cohesive theme of my codes for this chapter based on a useful coagulation of the coded data.. All the coded data under this theme relates to the idea that equity and equality are best thought of as a spectrum, and that this practice occurs in trucking safety management in Alberta (although not necessarily consciously).

Inequality was described by several of my interview participants as detrimental to safety. Participant 1, for example, described how some drivers and other workers at her company are given more leniency and "Get a pass" when breaking safety rules when compared to other drivers. She credited this observation to the willingness of management to make exceptions to discipline and investigative proceedings for drivers more likely to bring in greater revenue. Similarly, Participant 10 said:

> Participant 10: At [current employer] there's a saying that, he's a good guy. We need him. He's a good linesman. Yeah, but he just crashed a second truck. Yeah, but he's a good guy, you know, like, we need him. He's a supervisor, we can't get rid of him. So there's a lot of that. So there's a lot of double standard. I mean, there's one like we have one safety program, we have one, policy on vehicle, vehicle and equipment operation and speeding tickets, a speeding ticket, but not everybody's treated the same. So I don't know if that answered your question. But there's one system for all, but it's not applied to all the same.

In this excerpt, it is implied that the more valuable an employee is to the company then the higher the risk tolerance the company has for that individual. The need of the company to generate revenue threatens and deprioritizes the premise of treating all individuals fairly when it comes to safety violations. Inequality in this form presents a danger to the driver, other road users, and other carrier staff since patterns of unsafe behaviour are increasingly tolerated as long as an individual is willing to serve their employer well. Examples of this direct and positive relationship between profitability and tolerance for safety risk can culminate in worst-case scenarios, such as the 2007 collision in Calgary, Alberta where a cement truck rear-ended a stopped car, killing the five occupants of the car but sparing the cement truck driver of any major physical injuries (The Canadian Press, 2013). I received additional information about this collision when I attended a presentation by Chris Gauvin on driver awareness during the 2023 Alberta Health and Safety Conference (Gauvin, 2023). Gauvin, an active Calgary police officer specializing in collision investigations, discussed the 2007 cement truck collision as a case study into employer tolerance of negative safety behaviour patterns. The employer of the cement truck driver was aware of the

dangerous driving habits of this driver, having received complaints from both the public and other drivers at the company. They were also aware of the driver's angry temperament which other drivers at the company claimed lead this driver to speed and drive dangerously.

However, the employer failed to act against this individual. The reason is that this driver was both a hard worker and invested his own personal time and money into the meticulous upkeep of his dedicated cement mixer truck. For example, the employee driver was willing to personally pay for chrome and other decorative items for the truck despite not owning the vehicle himself. The employer felt the driver was an asset to the company due to the attractive truck and strong work ethic and was, as a result, willing to tolerate their negative safety performance. This was a causal factor in this horrific collision and also observed by several of my interview participants. My participants also brought discussions of employer power back into the conversation around inequality and safety performance. Participant 7, who had experience as a safety professional at a carrier that employs TFWs, noted these individuals "risk[ed] being deported if they don't listen to their manager, when they're told to do something unsafe" and, as a result, are more easily coerced into doing the dirty work the carrier knows they will be less successful in convincing their domestic Canadian drivers to perform. This is an inequality in the treatment of drivers that negatively impacts safety performance by using personal circumstances and socioeconomics to coerce individuals into acting against safety rules.

My interview participants generally described an equity-based approach to safety management as beneficial. While special treatment in terms of looking the other way when top performers commit safety violations has obvious negative consequences for the OHSMS' outputs, equitable treatment for staff who need extra assistance meeting safety standards has the opposite effect, such as providing "a bit more coaching or something like that" (Participant 1) when

someone is struggling to follow a safety procedure. They often described equity in safety management as an ideal and provided examples of ways they feel their employer, and the larger industry, can improve as noted by Participants 11, 2 and 7:

> Participant 11: I think the safety systems that I've seen are good in place, but they could be expanded. You know, as one example, one of the things that my safety systems always included is that one on one mentoring, as I mentioned, so you're either with my safety guy or you're with a fellow trucker, your first couple of times you go out you're always tag teaming, so the two of you are going into the same location loading the same thing, etc. But able to identify as a temporary foreign worker from a specific country. If you can team him up on that buddy system with somebody who has gone through that same process, for example, they're, two months, two years ago, they came over from the same country, went through the same program. I think that type of mentorship and kind of buddy system would be very helpful for foreigners.
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> Participant 2: I just think, you know, everybody comes from different walks of life. And, and some people are going to struggle with some things, some, some people might come from a company that told them to do it one way, a different way. And then, you know, they're coming to this company, and sometimes, you know, if they don't, if they're going through the training, and they don't get an opportunity to, to, to, to speak up and ask those questions. And some people are only comfortable doing that face to face or a one on one scenario? Um, yeah, I think I think there's a huge benefit to it. I would be concerned or like, just trying to think of it from I

guess, the financial pieces, how do we get that one to one interaction? Or how do we get, you know, for every single person that we need to do that in terms of like, the time and an appropriate time? Or? Or how do we change our program to try to address those, I guess, address those differences in everyone to try to make it more equity based. So that'd be a very interesting thought to go down.

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Participant 2: There's often times to where I think, how fair is it that we have some of our workforce that doesn't even carry cell phones or, or understand technology? And and we're pushing or I don't want to say we but there's some things that that are getting pushed down to them, that require them to have a cell phone or have a laptop or have an internet connection or be able to understand that technology? And yeah, I think we can get better at, again, creating that equity, like you said.

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Participant 7: The original program, and the requirements for speaking English are a huge thing. For other cultures that where English as a second language, the program's not being adapted into into their native tongue, not being taught the regulations in a way that they understand, uh, thoroughly is a huge problem.

My interview participants also provided examples of equity being practiced, either in their own work or through their observations of other companies. These observations generally focused on targeting training to specific individuals, removing language barriers, finding culturally appropriate mentors, and addressing barriers related to the rapid uptake of technology (like

smartphones and tablets) that many drivers are not comfortable using. Participants 12, 4, and 5 commented:

> Participant 12: So company, recently, this year, they had a driver have a medical medical issue, and driver came back and wasn't able to shift. And so they got one automatic transmission in their fleet specifically for that driver.
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> Participant 12: Yeah, the real key was that we couldn't release somebody until that meeting had happened, or those meetings had happened. And we had sign off from the trainer and from management, that the the employee was competent.
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> Participant 4: we have a couple on our QC team who are pregnant right now. And so when it comes to visual inspections, we have to make certain allowances because physically to get down onto the ground to do the visual inspections for the welds, these women can't do because of their limited ability with their pregnancy. So we've made allowances and we've changed some of the protocols on how we do things. So instead of them having to inspect everything on the ground, they'll pick it up and put it on pipe racks, they'll pick it up and put it on stands so that when the ladies come around to do the visual inspections, it's a little more physically easier for them to do.
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> Participant 5: For example, if we have a driver, we had a driver that had a sore shoulder, a company driver, and we put him in an automatic truck versus having him have to shift. So something like that we'll look at their equipment. Even if it's

a non work related accommodation request, we'll do what we can up until the point of undue hardship to make sure that we don't aggravate their current condition.

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Participant 9: So but we also have guys that, you know, are one step away from flip phones, so I can't give them their training online, they don't even know how to sign on to a computer. So in that case, I will produce quizzes and things like that for them to handwrite to finish and, and complete to so that I know that they're still getting the training that's required.

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Dave Elniski: [...] So they spend more time with that individual to bring them up to that.

Participant 8 - 22:18: Right.

I did get the impression from my interviews that equity-based practices are increasing in Alberta's trucking industry and that the industry, mostly out of an interest in labour sustainability, is more accepting of different cultures and individual backgrounds. For example, Participant 9 commented that "it seems like companies are more adaptable now and acceptable to different cultures, different backgrounds, different learning levels [when compared to] anywhere from five to 10 years ago". A general willingness to work with anyone who may appear promising as a truck driver was evident in the interviews as common through the industry, at least at larger, well-established companies. I tend to agree with my interview participants, too, as I have seen similar examples of practicing equity in safety management in my experience in the industry and find, when talking to carriers in my current role as a safety advisor, people to be quite willing to make

changes to aspects of their safety program if it means they are more likely to retain drivers and other high-demand staff. It is sort of a capitalistic competition-fueled feigned altruism.

I did, during my interviews, directly discuss whether my participants considered trucking OHSMSs to be equality-based, equity-based, or as containing aspects of both. Probably unsurprisingly, given the title of this theme, I observed a spectrum of activities that had safety professionals and employers using equity and equality in the management of their OHSMSs. When it came to equality, I found this to be a popularly expressed ideal, almost out of an awareness that advocating for equality was the only politically correct option to state during the interview. “Safety is safety regardless” (Participant 3) is a direct example of this type of response to my asking about equity versus equality. Participants 7 and 9, however, noted examples of equality in their OHSMSs, those at other carriers, and in the regulatory frameworks that form the compliance foundation for these OHSMSs:

> Participant 7: So Alberta Transportation created a sample safety program for trucking companies, whether they're provincial or federal, or operate, what types of vehicles they operate. And I would say 90%, if not more of the carriers that I audit are using that sample program without any modification. Their third goal of the safety program is to get over the minimum bar required by legislation, and OH&S, and they're not modifying the program for their internal needs, for their type of industry. For their types of drivers. It's a, the, they're all trying to meet that legislation bar, which is the same for every carrier, and doesn't change with that carriers demographics and internal structure.
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Participant 9: I would say equally, we do, orientation doesn't ever vary for anybody. Same thing, it doesn't matter to me how many years you've had over the road with anybody else with me, you're starting day one. And the other part is, lots of our training now is done through an online system, a work hub, it's called [safety software provider] that we use. And everybody is required to do all of the same things other than, you know, if they're hauling turnpike's or something. You know, sometimes the training is a little more specialized. But otherwise, but what tends and all those things are all treated exactly the same.

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Dave Elniski: Okay. Um, do you think companies take responsibility for accommodating individual worker a driver differences in abilities?

Participant 1: No.

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Participant 11: [...] I've never really seen anything [like a training program] created or identified specifically for a group such as temporary foreign workers.

These above examples of equality-based approaches to safety management all have a hint of negativity to them; in other words, the participants are critical of the use of equality in these instances. Participant 7's observations of the application of a standardized government safety program throughout the industry imply that, by endeavouring to make safety policies to comply with legislation more accessible to companies, the regulator has provided an avenue to compliance while discouraging intelligent carrier-specific safety management. Participant 11's comments about the lack of specific training for TFWs does not imply noncompliance but, rather, implies a

missed opportunity to go above minimum requirements by tailoring training to specifically meet the needs of a vulnerable labour population. So, while Participant 3's comment "Safety is safety regardless" is held strongly throughout the industry, I interpret this to mean the industry identifies equality as the ideal outcome from an OHSMS (i.e., no one gets hurt, we protect everyone, no incidents is the goal, etc.) while recognizing that equal treatment of individuals is not necessarily the appropriate pathway to get to this outcome.

Using an equity-based approach was most evident in my interviews when discussing the training of individuals. Since training assessments like tests and monitoring of driver paperwork allow for the grading of individuals, it is relatively easy to stratify people based on these metrics and target additional training and coaching to the "poorest performers". The examples I shared above of actual equity practices focus on language, communication, and technology barriers. These are aspects of a carrier's operations that are easier to control. Except for providing an automatic truck instead of one with a manual transmission, carriers have much less ability to modify vehicles to suit individuals and, if they do not provide a diverse list of services, may also not be able to modify many of their duties to accommodate people's mental and physical needs. Based on my experience in the industry, I argue that it is unlikely for most trucking companies to move beyond these types of equity practices in a safety context, unless the company has the willingness and resources to alter its business operations and perhaps challenge industry norms.

This theme is not about measuring the extent to which equity-based practices are applied at carriers, but also conceptualizing equity and equality as a spectrum. I have so far presented data from my interviews that show both equality and equity approaches at work and further shown how equity-based interventions meant to bolster the safety performance of vulnerable individuals generally is done to address issues related to communication and less so for mental disabilities,

physical ailments, and personal socioeconomics. The trucking safety professionals I interviewed believe such factors should be included in OHSMS planning and administration. Nevertheless, my participants were able to share examples of how shifting between equity and equality was beneficial for a carrier's drivers. Every one of the examples shared with me was one about training (Participants 2, 3, 4, 5, 6, 8, 11, and 12; my own experience). Here is my summary of the most common example of how I saw OHSMSs take a blended equity/equality approach, the hiring of new drivers, with my explanation of whether each step is equity-based or equality-based:

1. The carrier advertised it is hiring for drivers and only allowed certain individuals to proceed to interviews and driver testing based on their applications and drivers abstracts.
    a. Equality-based, as a single standard is being applied to everyone.
2. The carrier created a performance standard, such as the ability of a potential new hire to complete a test drive on the company's equipment with a maximum number of errors according to the in-cab driver instructor (often the trucking safety professional I was interviewing).
    a. Equality-based, since a single standard is being applied to everyone.
3. Drivers who did not meet the minimum standard during their road test would then debrief with the driver instructor. If the driver instructor believed they had a good attitude (i.e., a personality they felt aligned with the employer's culture) and could attribute their failure to nervousness or the need for minor skill development, the carrier can schedule additional training with the prospective driver.
    a. Equity-based, since the original hiring standard remains for immediate hiring but there is a mechanism in place to tailor the onboarding system to allow an entrance pathway to those who did not meet the original standard.

4. The additional training was built specific to the individual's weaknesses.
    a. Equity-based, since the training is designed to address the unique struggles of an individual person.
5. After completion of the additional training, the prospective driver was retested:
    a. Sometimes the retest was a modified version of the original test meant to only test for the person's prior shortcomings.
        i. Equity-based, since the retest is tailored to the individual.
    b. Sometimes the retest was the full, original road test.
        i. Equality-based, since the original standard is being reapplied to the individual regardless of their strengths and weaknesses.
6. Hiring can continue for those successful at the second test attempt. Some carriers may not proceed with the hiring of those who failed the second test attempt, whereas others may continue to coach and training the individual.
    a. At this point, the carrier has taken an equity-based approach simply by working with individuals to give them customized training and a second test attempt. Carriers could be *more* equity-based in their approach if they continue to work with individuals to bring them up to an acceptable standard.

This example of the equity-equality spectrum being applied to varying degrees in an OHSMS during driver hiring is common throughout Alberta's trucking industry. Similar examples are common for already-hired drivers during times of training and skill development, which is consistent with my observations of equity generally being applied during training events. I find this encouraging: if Albertan trucking companies are already accustomed to using equity in their

approach to training drivers, what other examples exist? Or, even more promising, what additional ways could equity and equality be blended in carrier OHSMS administration for the purpose of improving inclusivity *and* safety performance? The conceptualization of equity and equality as a spectrum instead of a dichotomy has, in my opinion, the potential to increase the acceptance of equity-based practices into the operations of average carriers. Both increase the participation of underrepresented individuals in trucking's workforce and increase the safety protections offered by OHSMSs to these underrepresented individuals so their unique identities are no longer considered safety liabilities.

Chapter Summary

Equity and equality do not have to be considered a mutually exclusive dichotomy. While it is likely not the case these two concepts are viewed this way in many contexts, industries where the concept of equity is new may struggle to understand how equity, which allows for actively treating people differently, could possibly be compatible with equality. By viewing equality and equity as a spectrum, we can move away from dualistic thinking that is inadvertently communicated through images like Figure 6 (above) and towards a more nuanced understanding of the terms as represented in Figure 5 (above).

The value in the equity-equality spectrum is that it encourages the dissection of complex systems to decide which approach makes sense intelligently and consciously. Compromise, while unacceptable for some safety rules, may be perfectly appropriate for others as we discover that our adherence to our OHSMS is not the best way to achieve our ideal safety outcomes and may be perpetuating the exclusion of qualified individuals from certain positions.

CHAPTER IX - SUMMARY, CONCLUSIONS, AND FUTURE DIRECTIONS

Summary

At the conclusion of my study, I can say that trucking safety professionals in Alberta have demonstrable ways in which they practice both equity and equality in the management and coordination of their safety programs. While OHSMSs are meant to be applied throughout an organization and to all individuals within it, equity appears to be a natural tendency when working at the level of the individual. It makes sense to spend extra time mentoring and coaching someone who is struggling as opposed to letting them sink or swim on their own after completing standardized training. However, practicing equity at higher levels, such as building it into OHSMSs to take into account cultural or socioeconomic diversity within a workforce, is less practiced despite being described by these individuals as a worthwhile goal in the safety profession. A major reason why is that much of the work performed by trucking safety professionals is directly related to compliance, whether that is compliance with laws or compliance with an OHSMS standard needed to maintain a certain type of corporate safety accreditation. It appears as though the role of the typical trucking safety professional is resourced enough to allow for these compliance activities, at least at a good carrier, but not enough to allow for the thought and experimentation needed to move beyond compliance into the realm of OHSMS innovation.

My semi-structured qualitative interviews with trucking safety professionals both confirmed many of my own observations from my own, similar professional experience while providing me with additional insight into trucking OHSMSs in Alberta and beyond. The themes I created from my dataset discuss how safety activities are often compliance-centric moreso than being focused on actual safety outcomes, how employer power over staff can and does influence safety outcomes, and how some safety professionals genuinely believe in the importance of the

work they do while finding it intrinsically motivating. More analytically, my study allows for better descriptions of how, in trucking safety, the personal circumstances of individuals impacts their professional life and can influence safety outcomes, something that safety professionals can both understand but be largely unsure about how to address, a theme I titled "The Personal is Professional". Finally, my learnings from my dataset, experience in the industry, and literature review helped me create a final theme that posits it is beneficial to view equity and equality, as ways to get to equality, as a spectrum, not a dichotomy.

Conclusions

My study has allowed for greater insights into trucking safety and the psychosocial environment facing those who work in this industry, and did so from a qualitative, critical theory perspective. This sort of work is unusual in trucking safety research, I can see how this approach can lead to valuable insights for safety in the trucking industry and beyond. Applications of this work could include the reevaluation of industry norms and best practices for the purpose of identifying whether compliance activities are actually likely to produce better safety outputs are being done for their own sake. My work adds to the growing body of literature showing the importance of recognizing the effect of personal stressors on a person's safety performance at work and, since I engaged with safety system managers, could lead to targeted interventions in trucking safety framework to take action to deincentivize risky behaviours and noncompliance, such as aligning pay systems with safety outcomes and increasing communication between regulators who oversee different safety frameworks in relative siloes, such as NSC versus OHS.

The following paragraphs provide responses to my main and sub research questions:

Main research question: How do trucking safety professionals and the safety systems they oversee take steps to address worker inequities that may impact individual safety

outcomes? Trucking safety professionals and their safety systems are using varying combinations of equity and equality in their approach to bringing about equal safety outcomes by acknowledging workers' professional lives impact their safety at work and by making compromises in their safety systems to accommodate diversity.

Sub-question: How do trucking safety systems accommodate diverse individuals who may struggle to comply with and participate in the system? Existing trucking safety systems and the safety managers who oversee them seem willing to accommodate language barriers by changing communication strategies to best serve the needs of individuals. These same managers also tend to give drivers the ability to self-select out of work when they are not feeling fit for duty, whether this is due to pressures in their personal lives or to more directly work-related factors, like driving-related fatigue. However, these managers also tend to believe current regulations, industry norms, and their own safety systems fail to provide protections to individuals on the basis of their intersectional identities, such as gender, race, and cultural background, and also note how NSC-specific safety is immature, when compared to OHS, in terms of addressing psychosocial hazards.

Sub-question: How might diversity amongst truck drivers and other workers impact their ability to participate in and receive protection from a trucking safety system? Some trucking safety professionals spoke about how assimilation into Canadian culture is positively associated with safety outcomes; like the question above, they also spoke about how they do not generally feel equipped to address psychosocial hazards associated with individual worker identities and their personal lives. Therefore, diversity amongst drivers challenges both safety systems and safety professionals.

Sub-question: Do employers feel responsible for accommodating individual worker differences? If safety managers are considered the employers then employers feel this sense of

responsibility as the safety professionals interviewed all had a sense of importance and meaning associated with the work they do. However, they also often saw themselves as independent from their employers and aware of the conflicts between safety outcomes and operations. So, the degree to which authority figures at an employer perceived safety as a value determines the degree to which they may feel worker accommodation is their responsibility (as opposed to believing a person's personal circumstances are of no relevance to work and safety).

Sub-question: What barriers do trucking safety professionals feel they face in the fulfilment of their duties? Safety professionals tended to see a lack of authority or influence over senior management as a barrier to advancing safety. Compliance-related activities, as opposed to activities directly meant to improve safety performance, was also reported as a barrier, along with the competition for resources between other parts of the company. Finally, a lack of tools to help address psychosocial hazards is another barrier traceable to the lack of this sort of hazard awareness in the NSC framework.

Sub-question: What barriers to do trucking safety professionals feel drivers and other trucking company workers face in the successful participation in the safety system? Anything that can result in communication challenges was identified as a barrier drivers and other workers face, whether as a result of language or cultural differences. Pay employment structures were also described as impacting safety performance and, relatedly, so was the personal pressures facing individuals. Overly prescriptive rules were also described as barriers to worker safety when the rules limited critical thinking.

Future Directions

In terms of knowledge dissemination, the primary plan is to publish a thesis intended to satisfy the requirements of my MA program and to share the final thesis itself with the participants.

The secondary plan is for publication in peer-reviewed journals, conference presentations, and publication in industry and OHS trade forums (i.e., magazines, websites, and trade show presentations) as appropriate. I have presented on my research results and ideas related to this thesis at Transportation Research Board's (2023) conference on both the topics of gender mainstreaming in OHS and on psychosocial hazards in trucking OHS, the Atlantic Workplace Health and Safety Conference (2023) on the topic of equity and equality in OHS management, the Alberta Motor Transport Association's (2023) leadership conference on the topic of psychosocial hazards in trucking OHS, and the Alberta Health and Safety Conference (2023) on the topic of safety management considerations and psychosocial hazards. I have given several guest lectures at the University of Lethbridge particularly in WGST 1000 and WGST 2700 classes and during the 2022 Samwak speaker series. Finally, I have a pending journal publication with Elsevier's *Safety Science* on autoethnography, psychosocial hazards, and trucking safety management.

The tertiary plan for knowledge dissemination is the use of this data in future research. For example, I may pursue further education, such as a Ph.D., and build upon equity in safety. In this example, the data collected in this research is a useful foundation for this future endeavour.

An interesting future direction for this research is further examining when equity-based or equality-based approaches to safety and staff management make the most sense to bring about ideal safety outcomes for specific, intersectional factors such as, but not limited to, gender, socioeconomics, family status, and ethnicity, education level, age, and risk perception. This research should be conducted in a workplace safety management context so that management and human resources activities, the corporate departments most likely to be associated with such activities, are not seen as outside of or removed from safety.

There are potential ways the findings in this thesis could be brough into practice in Alberta's trucking industry. First, NSC and OHS regulators and their legislation and standards should be integrated as necessary to ensure each is aware of the activities of the other and working in alignment for common goals. This would require the defining of the term "safety", so that NSC regulators concerned with highway safety and OHS regulators concerned with worker safety can bring their efforts together into a holistic application of the term that encompasses the public, employers, employees, and contractors. Second, NSC regulations and practice should be audited to see what potential and actual psychosocial hazards they produce, hazards that would create conflict with OHS regulations and practices.

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APPENDICES

Appendix 1 - Questionnaire given to each trucking safety professional via email and completed prior to each interview.

Appendix 2 - Interview guide containing informed consent information and the semi-structured questions used to interview each of the trucking safety professionals.

Appendix 3 - Visual mapping of the research questions, themes, and subthemes.

Appendix 1 - Questionnaire

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Pre-Interview Questionnaire

Thank you for agreeing to participate in this research project. Please complete the following questionnaire and send it via email to the Principal Investigator, Dave Elniski, at david.elniski@uleth.ca. You may also contact this same individual if you have questions about the use of this information and what steps will be taken to ensure you and any organisation you represent remain anonymous.

Industry Experience Information

1. What is your current job title?

[type your response here]

2. Please list any previous roles you have held at your current employer.

[type your response here]

3. Please list any previous roles you have held in the trucking industry.

[type your response here]

4. Please list any other industries in which have you worked.

[type your response here]

5. How much time have you spent in the trucking industry?

[type your response here]

6. How much time have you spent in the trucking industry as a safety professional?

[type your response here]

7. Do you oversee your employer's occupational health and safety system, National Safety Code safety system, or both?

[type your response here]

8. What is the approximate size of your employer and do you consider it a small, medium, or large carrier?

[type your response here]

Safety Education and Mentorship

9. Please list any formal education and training in occupational health and safety you have completed.

[type your response here]

10. Please describe any mentorship you have received about occupational health and safety over the course of your career.

[type your response here]

11. Please list any formal education and training in National Safety Code and trucking-specific safety you have completed.

[type your response here]

12. Please describe any mentorship you have received in National Safety Code and trucking-specific safety have you received over the course of your career.

[type your response here]

13. Please list any professional designations, certificates, and other credentials related to safety you currently hold or have held in the past.

[type your response here]

Appendix 2 - Interview Guide

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Interview Guide

The text below in *italics* is what is meant to be spoken to the participant by the researcher (the Principal Investigator). All other text represents potential follow-up and prompting questions which, depending on how the interviewee responds, may or may not be asked.

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I'm happy you agreed to participate in my research project. I will be recording this interview.

[start recording]

Before we begin, I want to remind you of the informed consent letter you signed and that you are free to withdraw from this research up until the point any material is submitted for publication or as part of my education program. I will be using today's interview recording for the purpose of transcribing it. You and the company you work for will remain anonymous in all subsequent data analysis and publications.

We have the next two hours for this interview. That is more than enough time and you're not responsible to tracking time; I'll make sure we progress through the questions. In order to stay on time, I may interrupt you and ask that we move on to the next question. If you feel it is important you continue to contribute to a specific question, just let me know; back and forth dialogue is important in this type of research. I will stay longer than the two hours if the interview is still going on, but I do not expect you to and understand if you need to leave.

Now the interview will begin.

<u>The Trucking Safety Professional and Their Job</u>

1. *To start, how did you get into trucking safety?*
2. *How does your company arrange its NSC and OHS safety systems?*
    a. Are they segregated or combined? If more than one person is involved in safety, are these different people knowledgeable in both systems?
    b. Does OHS and NSC collaborate to address safety performance issues?
3. *Do you believe the safety system you oversee improves the safety of drivers and other workers? If so, how?*
4. *How are work refusals handled, like a driver saying they need to stop driving for safety reasons or someone refusing to do a non-driving task because they feel it isn't safe? Can you tell a story about an example of such an incident, or perhaps walk me through an example of what would happen?*
    a. Are there penalties for refusals?
    b. Can some drivers refuse work without penalty where others would see a penalty?
5. *How are the following individuals paid at your organisation?*
    a. *Drivers;*
        i. Is the pay productivity-based (i.e., percentage of load revenue, per mile)?
        ii. Is the pay time-based (i.e., hourly, salary, daily)?
        iii. If the pay system is a combination of time- and productivity-based, how is non-driving time paid?
        iv. How does it change for different types of drivers? Different types could include local versus over-the-road, or different work arrangements like company drivers versus contractors.

b. *Non-driving workers such as dock workers, warehouse workers, and yard workers;*

c. *Technicians;*

d. *Nonmanagement office staff such as dispatchers, salespeople, and administrators, and;*

e. *Managers.*

6. *How is the position of "driver" structured? Are they solely or a combination of employees (i.e., company drivers), lease operators, owner-operators under the carrier's registration, or owner-operators on their own authorities?*

    a. *Do different driver employment structures result in different safety performance?*

    b. *Are any safety metrics cross-referenced with driver pay statements?*

Equity, Diversity, and Trucking Safety (research subquestions 1, 2, and 3)

7. *The next few questions will examine equity. Equity is different than equality. Equality is treating everyone the same and equity is being willing to treat people differently to bring about equal outcomes. In your experience, are trucking safety systems equality-based or equity-based? Please provide some examples to justify your answer.*

    a. In other words, do these safety systems treat everyone equally or does the system adapt to individual worker differences to produce equal safety outcomes?

8. *Do companies take responsibility for accommodating individual worker or driver differences and abilities? If so, how have you seen this done?*

    a. If so, what would an accommodation from the safety system look like?

    b. Do you consult with individuals to craft individual accommodations, or do you have standard accommodations that apply to everyone?

9. *How does a person's gender impact their safety in trucking?*
    a. Please describe how trucking safety systems can address gender-related safety concerns.
    b. Has anyone ever voiced gender-related safety concerns to you? How are they treated by the company?
10. *How does a person's race or ethnicity impact their safety in trucking?*
    a. Please describe how trucking safety systems can address race- and ethnicity-related safety concerns.
11. *How does a person's socioeconomic status impact their safety in trucking?*
    a. Do trucking safety systems address risk from drivers and other workers who are under economic pressure?
12. *Temporary foreign workers in Canada's trucking industry typically work under a closed work permit and must remain with the employer that originally hired them as a temporary worker. How does being bound to an employer affect someone's safety?*
    a. Do trucking safety systems take any measures to specifically address the challenges temporary foreign workers may face?
    b. If your organisation employs temporary foreign workers, are their positions paid and structured any differently?
13. *How does a person's employment status (i.e., employee versus contractor with varying levels of dependence) impact their safety in trucking?*
    a. Do safety systems assess hazards that are either specific or more prevalent in different employment arrangements?

<u>Barriers to Equity in Trucking Safety (research subquestions 4 and 5)</u>

14. *Are there any individual characteristics of drivers and other workers that especially impact their protection under a typical trucking safety system?*
15. *What barriers do you face in the fulfillment of your job's duties?*
    a. What barriers do you think other trucking safety professionals face?
    b. Do any individual factors influence these barriers?
    c. Where does the commitment to safety practices start? Does this vary significantly between companies?
16. *What factors, whether internal to your company or external, make your job easier?*
17. *Are there ways in which a trucking safety system creates its own barriers to worker safety?*
18. *Does the company's method of paying drivers and other workers create barriers to positive safety performance?*
    a. Is the pay system considered when conducting hazard assessments and other safety system improvement efforts?

Conclusion of Interview

19. *What is most rewarding about your job?*
20. *Thank you for participating; is there anything else you would like to add?*

Appendix 3 - Thematic Visualization

A central concept in reflexive thematic analysis is to code all pieces of qualitative data (i.e., my interview transcripts) that correspond to the research question(s) (Braun and Clarke, 2022). Once I had finished coding and developing my themes, I mapped my themes and subthemes against my main and research sub-questions to visualize what relationships are present between the themes and questions. This further solidified my thematic analysis in relation to my original research proposal. Figure 1 presents these results; while produced in NVivo, all relationship identification was performed by me, not through any of NVivo's analysis features. These responses are intended to provide short responses to the research questions in a direct way; a much more detailed thematic analysis is presented in the chapters above.