Slaughterhouse Rules: Declining Abattoirs and the Politics of Food Safety Regulation in Ontario

by

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Abstract

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In Ontario, farmers wishing to sell their meat locally must have their livestock slaughtered at a provincially-inspected abattoir. While this type of infrastructure plays an essential role in local food supply chains, its significance is often overlooked. Large numbers of these slaughterhouses have been closing in recent years. This thesis investigates this trend by conducting a series of in-depth interviews with stakeholders in order to determine why abattoirs have been closing so rapidly. It reveals that a variety of factors contribute to abattoir decline, including provincial regulation designed to ensure food safety. The food safety rules, which are increasingly aligned with global standards, tend to present a significant financial burden for these businesses. This research concludes that efforts to address this decline could be more effective if the scope of risk analysis were broadened so as to incorporate other values, including those associated with localized food systems.

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Introduction

Today's conventional food system is criticized on many fronts, with claims that it has widespread and negative environmental, social, health and economic impacts that are felt by individuals, workers, small businesses and communities across the global North and South (Patel, 2007; McMichael, 2000; Nestle, 2002). Many defend this agro-food system, however, claiming that it can feed more people most efficiently (Ruane and Sonnno, 2011), generate economic growth and prosperity and, with centralized safety control mechanisms in place, produce the safest food (Whitehead, 1995; Matsuyama, 1992). These debates are very much at play within the global meat system.

The global meat system is paradigmatic of trends in the broader food system, but it is also especially complex and contested. Not only is corporate consolidation more entrenched than in other industries (OECD, 2006), but debates about the meat industry inherently encompass broader deliberations about the morality of consuming animals. Importantly, the material properties of meat – vulnerable as it is to bacteriological contamination – make it an especially risky-seeming substance and, thus, a high-stakes subject of governance. In addition, more commonly-criticized features of conventional food systems, such as employee mistreatment (including physical and psychological injury) and environmental pollution resulting from large-scale livestock production and processing methods, are frequently problematized (Dillard, 2008; Weis 2010; Weis 2013b; Boyd, 2001).

Contestations of the conventional food system, including meat production and processing, continue to expand, led by individuals and groups who advocate for an approach to food and agriculture that prioritizes a different set of values. They tend to argue in favour of a food system that distributes wealth and power more broadly, ensures adequate safe and healthy food for everyone, and enables farmers to earn a livelihood while growing food in ecologically-sensitive ways (Levkoe, 2011; Allen, 2008; Hinrichs, 2003). These so-called "Alternative Food Initiatives" (AFIs) have taken hold across the globe, taking many different forms and focusing on different aspects of the conventional food system. They advocate for a variety of alternative practices and systems, using words like "local", "organic", "grass-fed,"

and “free-range” to characterize various way of producing foods which aspire to operate outside of conventional systems – but sometimes they fail to address many of the original criticisms of these systems. Such movements are critiqued for various reasons, including a tendency to “idealize the ‘local’”, fail to recognize how problems within the food system are interconnected, or even reproduce existing exploitative structures by continuing to equate ‘citizen’ with ‘consumer’ (Levkoe, 2011; see also Guthman, 2006 and Gray, 2014).

Nevertheless, the notion that locally-oriented food systems should be a major component of such an alternative food system has become prevalent. Interest in local meat, too, has grown on the basis of its association with improved human and environmental health, which parallels reasons for interest in local food in general (Taylor, 2001). While these perceptions may be differentially true, depending on the particular farm and meat product that one is referring to, there *do* tend to be greater opportunities for farmers targeting local markets to house animals in lower densities (or feed them on pasture), reducing the prevalence of disease and the need for antibiotics. Others use fewer (or no) agricultural inputs, including fertilizers or pesticides, on the feed grain they grow for their animals. Others point to reduced transportation distances of the final product, resulting in lower greenhouse gas emissions, while others argue that the slaughter process itself tends to be more humane in a smaller local plant – though this is debated (Taylor, 2001; Marx, 2009). Overall, livestock farmers targeting local markets are sometimes engaged in this type of alternative production practice.

Interest in purchasing locally grown foods among Ontarians has been growing, and the Ontario government has promoted the values of local purchasing enthusiastically. The promotion of local food has taken various forms, the most significant of which have been the Local Food Act (Bill C-36), enacted in November of 2013, and the creation of the ‘Local Food Fund,’ which was launched in September of 2013 (OMAF, Local Food). While reactions to these two initiatives have been mixed, many involved in AFIs have lobbied in favour, and celebrated the passing, of the Local Food Act, calling it a “step forward for Ontario’s local food movement” (Singh, 2013).

However, despite recognition that “scaling up” alternative food systems is “the next hurdle facing the food movement” (Mount, 2012, 107), AFIs have paid inadequate attention to some practical barriers that limit the growth of such alternative systems. In particular, the

importance of infrastructure that is suitable for local food producers, processors and retailers is frequently neglected. One such type of infrastructure is the local abattoir (otherwise known as a slaughterhouse).

Indeed, the fact that a livestock farmer requires a slaughterhouse in order for his/her animals to be killed and processed into meat is widely assumed, but infrequently acknowledged – even by participants in the alternative food movement. As efforts are made among participants in this movement to develop a more transformative food politics (Levkoe, 2011) we *are* seeing efforts to identify actors within food systems who are being neglected, and attempts are being made to develop approaches which recognize their important (and often neglected) experiences with food systems. Such efforts have been focused on farmworkers (Gray, 2014), low-income individuals (Allen, 2010) and people of colour (Guthman, 2008), forcing critical food system scholarship to recognize the broader effects of capitalism as it shapes issues of income inequality, race and labour. I believe that local abattoir operators, whose experiences and place within the food system admittedly differs greatly from those of the aforementioned groups, nevertheless have also been neglected in food system conversations.

The issue: Declining Abattoirs

Abattoirs are businesses that take in live animals and slaughter them. They take numerous forms in Canada, operating on a wide variety of scales and under the regulatory authority of all three levels of government. Indeed, federal, provincial and municipal authorities share jurisdiction over the regulation of this type of business, since none of them have specific authority over 'meat inspection' and, more broadly, the protection of public health is also an area of complimentary legislative authority according to the constitution (Haines, 2004).

Abattoirs inspected by the *federal* government constitute the most prevalent type of abattoir in Canada, with 85% of meat produced being slaughter/processed in this type of plant (Haines, 2004). As Haines explains, "the participation of the federal government in meat inspection specifically, and food safety generally, arises from its jurisdiction over trade and commerce (s. 91(2)) as well as its powers in the area of criminal law (s. 91(27))" (2004, 67). Businesses regulated by the federal government (specifically, by the Canadian Food Inspection Agency) must abide by the same regulations no matter where they are located in

Canada, and they usually do more than slaughter animals. Activities usually include aging, cutting and wrapping meat, as well as further-processing it (which refers to activities like smoking, curing or making other meat products.) Federally-inspected plants tend to be large operations that are oriented toward inter-provincial or international trade, though they do vary widely in terms of size and scale of operation (Carter-Whitney, 2008). Due to the fact that meat is often processed and "packed" for export, and this often takes place on a large scale, these plants are commonly referred to as "meat packing plants" (and this terminology will be used throughout this thesis.) Federal plants also have specific ways of relating with farmers. They purchase animals from farmers, either by establishing contracts with specific farms (which is increasingly the case) or at an auction attended by many farmers, and they sell the finished products under a particular brand name, such as Maple Leaf. Therefore the farmer sells the animal outright to the meat packing company who operates the slaughterhouse. While most federally-inspected processing plants in Canada are located in Alberta, there are 33 currently in Ontario, which is more than most other provinces (Haines, 2004).

Apart from all hosting federally-inspected abattoirs, Canadian provinces differ in terms of how they regulate other types of slaughterhouses. Provinces essentially have the right to regulate meat products being consumed within the province, stemming from powers guaranteed in section 92 of the constitution that enable jurisdiction over local works and undertakings (Haines, 2004). Since it is fairly onerous to achieve federal inspection, and not every farmer or butcher *wants* to export meat across provincial borders, every province is also home to numerous *non*-federally inspected slaughterhouses. These tend to be smaller and oriented towards local markets. In Ontario, the provincial government has decided to regulate all of these non-federal abattoirs, though in other provinces this type of business is sometimes regulated by municipal authorities (which tends to be much less strict). There is not, at present, any national regulatory program or set of standards that non-federal abattoir must abide by in Canada, although there was an attempt to create such a set of standards (as will be discussed in chapter 6).

Thus, Ontario's provincial government (through the Ontario Ministry of Agriculture and Food, OMAF) regulates any non-federally inspected business conducting animal slaughter. These businesses, like federally-inspected plants, typically slaughter animals in addition to

other activities (though not always – slaughter-only plants do exist at this level.) Usually they also cut up and wrap the meat from these animals and sometimes also process the meat further. Importantly, this type of licence forbids meat processed in such establishments from being traded across provincial or national borders, and so businesses tend to be oriented towards regional/local markets. It is for this reason that these abattoirs are often also referred to as "local" abattoirs. In addition, because of the limits to their scope of distribution, they tend to be much smaller than slaughterhouses inspected federally. They tend to process relatively few animals (between 10 and 50 per week), often slaughtering once or twice per week and processing those carcasses the rest of the time. They are often located in rural areas and historically have been spread out around the province, mostly because their usefulness to farmers depends on their proximity to them.

Also significant is the fact that only provincially-inspected abattoirs are able to offer 'custom slaughter service' to farmers. This involves slaughtering and processing (cutting and wrapping) an animal and returning the meat to a specific farmer, in return for a fee. Thus, farmers wishing to market their own meat (at a farmers' market, through a store or directly to their neighbours) require the services of a provincially regulated abattoir. (Relatedly, Free-Standing Meat Plants (FSMP) are a relatively new category of Ontario business; these are also regulated similarly by OMAF (as of 2005) and are plants engaged in meat processing but *not* animal slaughter which fulfil certain requirements.)

Many farmers depend on this type of direct sales method in order to remain viable. By avoiding selling through a retailer, farmers are able to collect a much higher percentage of the 'food dollar' (the amount paid by the consumer for their products). Indeed, farmers whose production practices deviate from conventional ones (perhaps by raising animals in "free range" conditions or by feeding them organic grain) are often dependent on direct sales to enable them to "make up" for the higher costs of their production practices. When they can market directly to consumers, introduce their farm and explain their farming practices, they may be able to convince buyers to pay a premium for their products. Farmers' would not be able to engage in this type of selling without access to local abattoirs.

Unfortunately for Ontario farmers, many of these abattoirs have closed; to be specific, since 1998, 138 have closed, representing a reduction of just over 50% in 16 years (Haines, 2004;

OMAF, 2014b). Some of these abattoirs have closed fully, while others have transitioned into higher-value activities, such as meat cutting and further processing. However, from farmers' perspectives, these businesses are no longer very useful, since the animal slaughter is the most essential of the services they offer; therefore, I refer to examples of both such situations as "closures."

This research project begins in recognition of this trend and endeavours to examine its causes in more detail. This issue of abattoir closures has only begun to attract broader attention in recent years, as evidenced by the fact that a number advocacy groups formed or took up this issue *after* 2005, and a growing number of reports that draw attention to closures have also been published during this period. This project was motivated by the fact that abattoir closures are becoming a major issue in Ontario, and points to an important infrastructure gap that will impede the growth of local food systems.

It is important to note that the term "local abattoir" is used often throughout this thesis. However the term "local" (in reference to food) is often (and unwisely) conflated other values, such as fair, safe, high quality or humane – which do not necessarily align with reality (for example see Gray, 2014). In other words, it is dangerous to promote the use of "local" to mean "good." In this case, however, I intend to use it solely to denote the scale of market that an abattoir is targeting, rather than any other qualities pertaining to the business.

Research Objectives

The goal of this project is two-fold: first, to develop an understanding of why local abattoirs in Ontario have been closing over the past 15 years at a rapid rate, and in particular what barriers have made it challenging for them to remain viable businesses. The second, and building on the first, is to better understand why regulation has become such a significant yet dichotomizing force within Ontario's provincial meat processing sector.

Indeed, regulation in the sector – especially that which is intended to ensure the safety of meat products – has gone through many phases over the past 50 years, including changes brought about by a new piece of legislation in 2001 and expanded in 2005 (Food Safety and Quality Act, 2001; Ontario Regulation 31/05). Some suggest these changes have contributed to abattoir closures (OFA, 2011) while others contend that these changes have been necessary and have not played a role (OIMP, 2009b). I also aim to shed light on why current

food safety regulations emerged in this current form and how they seem to be impacting abattoir operators' opportunities.

The challenges facing abattoir operators are commonly portrayed by institutional and government actors as being the result of a natural decline resulting from fewer farms and available workers, combined with poor management choices by some operators. However, I argue that the challenges facing operators are more complex than this characterization implies. The provincial government's regulation of slaughterhouses is having impacts that actually threaten its interests in promoting local food producers and businesses, as outlined through the Local Food Act. So, while the government has committed to strengthening local food systems on one hand, at the same time its regulatory policies are undermining the success of important actors within that sector. Overall, the Ontario government has not been enabling the success of local abattoirs in a way that would indicate genuine investment in a flourishing local meat sector, for reasons that will be outlined over the course of this thesis.

This research aims to contribute unique empirical work by providing a critical, Ontario-specific analysis of the reasons behind a phenomenon that has increasingly been noted across North America: the closures of local abattoirs. However, it responds to a locally-identified need for scholarship that sheds light on the decline being felt in rural Ontario communities specifically, and attempts to bring issues facing abattoir operators to the forefront, arguing that they have so far been under-recognized by those analyzing local food systems. After all, local meat supply chains cannot operate without local abattoirs and yet, this crucial infrastructure has not yet received significant attention in food studies scholarship – especially in the form of an Ontario-specific case study. Despite being subject to many of the same constraints as other provincial/state-oriented meat industries, Ontario's provincial meat processing sector has its own unique history and challenges, and analyses of abattoir closures in other areas of Canada (see Hodgson, 2012; McMohan, 2007) cannot fully explain what has been experienced in this province.

This research also builds on critical literature on food safety governance in the context of local food systems. Building on the claims of scholars like DeLind and Howard (2008) and Dunn (2002), this research demonstrates that the most recent turn in food safety regulation – characterized as a "science and risk-based approach" – has not been embraced or

implemented by local abattoir operators with nearly as much ease as these standards have been applied in conventional food systems. Furthermore, scholars argue that this approach toward regulation neglects other kinds of non-science based risks (including risks to rural livelihoods and ecological risks), leaving them out of the process through which regulatory decisions are made (see Stuart and Worosz, 2012; Waltner-Toews, 1996; McMahon, 2013.) This research also reinforces these conclusions by detailing the ways in which regulation is represented as science-based and apolitical in Ontario.

Structure of this thesis

The following chapter – Chapter 2 – offers a review and brief analysis of existing literature, both scholarly and non-academic, which provides the context for this research. While academic work on declining local slaughter capacity has so far been limited, some scholars have begun to take on these issues, as will be outlined here. In addition, a growing number of non-academic reports and regional case studies have been undertaken on related topics in Ontario in recent years, which has both identified a need for more academic work on the topic and informed the direction of this study; examples of these initiatives are outlined in this chapter. This research also fits, however, within a broader field of food systems literature, some of which focuses on local food systems and the scale-specific impacts of governance mechanisms on farms and abattoirs. As regulation and governance within Ontario's provincial meat sector is a major focus of this thesis, this chapter finishes with an analysis of additional literature related to the workings of regulatory power as well as the political outcomes of approaches to regulating the safety of food, including meat.

Chapter 3 examines the methods used to conduct the empirical research component of this project. Beginning with an explanation of the institutional ethnographic the framing of the research process, this chapter goes on to detail the in-depth interview process that are at the core of this research, as well as the document analysis done in support of (and directed by) the findings of the interview component. This chapter concludes with a discussion of methods of coding and analysis used.

Chapter 4 consists of an overview of the development of livestock-producing and meat-processing province, in recognition of the fact that part of what distinguishes this research is its case-specific approach. Indeed, understanding Ontario's current local meat infrastructure

challenges requires a basic awareness of this province's histories of agriculture – and meat processing. The focus is on major shifts in Ontario's agricultural development and reasons for which both a developed export-oriented meat processing industry, combined with an expansive network of small abattoirs and mixed-farms, have come to characterize this provinces' diverse meat and livestock industries. Not only does it expand our understanding of why Ontario's livestock farming sector takes its current shape (which in turn influences the environment faced by abattoir operators), but it also sheds light on the political foundations of both provincial and federal meat inspection systems.

Chapter 5 shifts the focus to the present day and the current period of decline that local abattoirs are experiencing, directly addressing the question, "why are abattoirs closing in Ontario?" through engagement with interview findings. From a lack of skilled labour to a changing agricultural landscape, the views of stakeholders across the sector are analyzed and compared, with the focus on both widely agreed upon evaluations of current challenges in the sector, as well as those which emerged as more contested points. The chapter finishes by pointing to the role of food safety regulation as the primary factor identified by stakeholders; this topic is taken on in over the next two chapters.

Chapters 6 and 7 delve into the most controversial issue that emerged from this research: regulation surrounding food safety. I set out to explore what the changes are, why they have taken place, and what the impacts have been. To that end, chapter 6 begins by outlining the most significant ways in which it has changed recently and then turns to the question of why it has done so, exploring the factors influencing the decision to institute what is typically referred to as a modern and/or science-based system (OIMP, 2009b; OMAF, 2013). These include local political factors as well as broader political pressures to establish Ontario's food safety system as a 'modern' one by aligning the province's food safety standards with national and international ones.

Chapter 7 tackles the question of *impacts*. Stakeholders' views on the impacts that regulations have had on local abattoirs are summarized, compared and contrasted, as a minority of stakeholders felt that regulations were beneficial, while the remaining stakeholders felt they presented significant challenges. This chapter shows that the impacts felt by Ontario abattoir operators have quite negative – and yet, that a minority of industry

stakeholders continue to deny their impacts. This chapter finishes with an argument, based on the above evidence: that the impacts of food safety regulation have been de-politicized in a manner that undermines the potential for genuine democratic debate concerning the nature of governance in this sector. This argument draws on literature, highlighted earlier in the literature review, which explores the role of science in generating – and legitimating – a 'risk assessment' approach to generating food safety standards, asserting that these processes can also be seen at work in Ontario. And, it demonstrates how these processes of de-politicization have prevented Ontario's key stakeholders from having the kind of open dialogue that could lead to an approach to governance in this sector that genuinely invests in a flourishing local food system.

Finally, the thesis concludes with a summary of the important findings of this research, alongside several final arguments concerning the potential benefits of re-politicizing food safety regulation in Ontario. This includes a short discussion of the implications of this research in terms of efforts to 'scale up' Ontario's local food system, and makes several recommendations in terms of potential future areas of research.

Chapter 2: Abattoir Decline & Discourses of Food Safety Risk

This work has taken direction from studies that have looked at local food supply chains, infrastructure gaps and efforts to better understand decline in local meat production systems, which have focused on various regions across Canada and the US. But this work also engages with the question of food safety *regulation* in the meat sector. As such, it has been informed by various fields of scholarly work that focus on this particular form of governance, including the politics of food safety, techniques of risk assessment, and methods of standard-setting at a variety of scales. Given the wide impacts of food safety regulations in today's globalized world – with impacts on trade, public health and safety, and food systems at all levels – this has been a major theme in scholarly work. The questions these scholars raise about science, risk and power in food governance informed my own critiques of food safety governance in Ontario.

This chapter is devoted to the realization of three goals: first, I contextualize the empirical work presented in this thesis by situating it in relation to existing research that concerns the causes and impacts of decline in local slaughter sectors in North America. Second, I situate this work more generally within the literature on food safety governance, summarizing risk analysis as an approach to food safety standard-setting. Third, I present some criticisms of this approach which I have found quite instructive to this analysis.

Case Studies on Declining Local Slaughter Capacity

Much of the analyses of governance in local meat processing supply chains have looked at the particularities of one localized example of regulatory change and the impacts that it had on farmers and/or rural food sovereignty. In Canada, several recent projects of this type have investigated the impacts of a new Meat Inspection Regulation (MIR) in the province of British Columbia (see McMahon, 2007; Woodward, 2011; Hodgson, 2012; and Miewald et al, 2013). These investigations have centered on questions of how and why this major regulatory shift negatively impacted small and mid-sized BC abattoirs, as well as the farmers who use their services.

The new MIR in BC has been of particular interest because the abattoir closures that it prompted were extreme and sudden; the number of operation small/mid-sized abattoirs in BC are estimated to have declined by several hundred within a year of the implementation of the MIR (BC Ministry of Health, 2011, as cited by Miewald et al., 2013). There was no question that the MIR was connected to the abattoir closures; instead, the questions being asked concerned the motivations behind its implementation, its connection to broader trends, and how the reductions in abattoir capacity were impacting BC livestock farmers. For instance, one study focused on food security implications, with interviews largely conducted with farmers as well as regulators (Hodgson, 2012), while another investigated the reasons why the MIR was implemented, arguing that it was a result of "dominant neoliberal discourses of 'standardization equals safety,' 'bigger is better,' and 'one-size-fits-all'" (Woodward, 2011). However, comparisons between the BC and Ontario, both in terms of rural food security and declining abattoir capacity, are not straightforward because Ontario's experience of decline has been less rapid and less extreme, probably in part because our provincial inspection system has been in place for so much longer here (since the early 1960s). Nonetheless, Ontario *has* experienced a significant decline in the number of operational abattoirs, and therefore the need for a locally-specific analysis is clear.

Scholars in the US have also taken up the issue of abattoir closures, reflecting situations that are in many ways similar what we are seeing in Canada. Although there are state and federal levels of abattoir inspection in the US, paralleling Canada's provincial / federal scalar division (though state regulations are only in place in half the US states), there are also many unique features of US regulation. In general, there are more exceptions and exemptions made in the US with the goal of accommodating the unique needs of smaller livestock producers. For instance, on-farm processing exemptions exist for producers raising fewer than 20,000 birds as long as certain conditions are met (Hipp, 2001). In any case, no reductions in abattoir numbers as extreme as in Canada were noted in the US. However, many parts of the US are also experiencing abattoir decline. In response to this phenomenon, there have been various studies completed in the New England states which have tested hypotheses concerning processing bottlenecks and gaps in abattoir capacity experienced regionally (see Lewis and Peter, 2011; Johnson et al, 2012). These studies are, in general, not particularly critical of state-level regulatory systems, focusing instead on the need for more farmer-operator

collaboration and the need to expand capacity and demand for local meat concurrently. Again, it is clear that given the unique features of Ontario's system, more locally-specific analysis is key.

There has also been research initiatives of various kinds undertaken in Ontario, conducted and funded by various agencies. The largest study to date was completed this year by researchers within the College of Management and Economics at the University of Guelph and was funded by the Ontario Independent Meat Processors (OIMP). Like this research project, it investigated the causes abattoir closures in Ontario. Charlebois and Summan (2013) found that high overhead costs, limited access to skilled labour, and a challenging regulatory framework all contributed to the increasing rate of abattoir closures in the province, aligning in many ways with my own findings, and relied on a body of management literature focused on issues of competitiveness and market access. However, little attention was given to underlying causes of the barriers that operators reported facing. Nonetheless, the fact that this study was commissioned at this time by the OIMP, which is the official voice of independent meat processors in Ontario, indicates significant interest in research to address these questions.

A series of non-academic reports and policy statements have, in the absence of significant academic work on this topic in the Ontario context, impacted the nature of debates on provincial meat policy in Ontario. For example, in 2010 the Ontario Federation of Agriculture, though an Adhoc committee of some members (the Committee of Concerned Abattoir Operators) surveyed industry stakeholders. This was sent to all abattoir operators and asked questions about challenges in the industry, financial investments, regulatory compliance and the value of each operators' business following investments required to achieve regulatory compliance. With a response rate of 25% of Ontario operators, the survey determined that found that the majority felt that regulations were too onerous (OFA, 2011). The OIMP, however, discounted the validity of the groups' claims, as well as the neutrality of the survey, as will be discussed in chapter 5. The study and its contested findings, though, demonstrate the increasing politicization of this issue in the province – and the need for additional research, especially that which collects more detailed and nuanced information from stakeholders than can be captured through a survey.

Other prominent organizations have issued policy statements and/or commissioned research reports on this issue. For example, the National Farmers' Union (NFU) issued a policy statements focused on the issue of declining numbers of Ontario abattoirs, written in 1999 and expanded in 2003, which connects the needs of the local farming and local meat processing communities and makes several suggestions as to ways more support could be offered to both. The NFU also references the decreasing number of abattoirs in other reports on the agricultural sector (see NFU, 2008). Additionally, groups like Sustain Ontario (a provincial network engaged in research and advocacy work in favour of food systems that are "healthy, equitable, ecological and financially viable") has engaged with these issues through its 'Meat & Abattoirs Working Group', hosting meetings and attempting to grow a stronger meat processing sector (Sustain Ontario, 2010). Other organizations concerned with institutional and infrastructural barriers to local food access in the province have likewise generated reports which touch on abattoir issues, such as Carter-Whitney's 2008 report, commissioned by the Friends of the Greenbelt Foundation.

Relatedly, some counties (including Huron, Northumberland and Perth counties) have conducted provincially-funded Business Expansion and Retention (BR+E) studies, which are intended to support local business development. Some such studies identified declining numbers of local abattoirs as a barrier to local food system development (Perth County, 2012), while others are ongoing. As well, following the 2012 Perth County study, an expanded follow-up study was done by University of Guelph students that focused specifically on challenges in the livestock industry in the county. They found that "local producers … expressed concern over the long-term viability of their businesses" and that processors cited numerous industry challenges, from inconsistent inspection to a lack of skilled labour (Pinkney et al, 2013, 29). However, all three studies investigated these issues on a regional basis only and so their conclusions were not applicable to the entire province.

These Ontario-based studies complement the academic work that has been done in other regions of Canada and the US, and overall this body of work makes it clear that this issue matters to those living and working in rural Ontario: that Ontario's experience is unique enough to merit a case-specific research project, and that the issue of abattoir closures and slaughter infrastructure decline is an issue deserving of more attention. However, it is not the only literature that has helped to situate this research project. In approaching the second

major objective of this research project – why food safety regulation has become such a significant yet controversial part of debates on abattoir decline – a body of literature concerning the politics of food safety governance has been of key importance. I delve into the most instructive themes from this literature in the following section.

Food Safety Governance

The body of literature that discusses food safety governance is multi-faceted. For the purposes of this thesis, it is helpful to start by summarizing some of the central tenants of mainstream or conventional thinking on the topic of food safety governance, and to then move on to some of the most instructive critiques that critical scholars have been making – especially those concerned with how meat processing is governed.

Risk Analysis

Much of the literature on food safety governance begins with the assumption that the risks of food borne illness are increasing, due to the global scope of the food trade and changes in production and processing practices, and so our collective approaches towards managing the risks associated with foods needs to change accordingly (Gangahar, 2009). In the 1980s and 1990s, pathogens like Salmonella, Listeria and E-coli are said to have emerged as threats to food safety "all over the world" (Schlundt, 1999, 299) (though others point out that many of these diseases are only found in industrialized countries; see Finz and Allday 2006.) In general, traditional approaches to managing food risks were based in inspection practices which are now seen as inadequate (Hulebak and Schlosser, 2002). Today, the most widely-recommended approach towards food safety assurance is what is called a "risk management approach" (Schlundt, 1999).

This approach towards assessing and managing food safety risks consists of several parts: risk *assessment* is seen as the process by which a scientifically-quantifiable level of risk in a particular situation is determined, while risk *management* refers to decisions about how to respond to this level of risk. Risk assessment tends to be focused on utilizing scientific data "to define the health effects of exposure of individuals or populations to hazardous materials and situations" and then, through the use of risk management techniques, alternative responses can be weighed and analyzed (Center for Risk Analysis, 1994, 10). Indeed, as Post explains, "risk assessment is a *technical* evaluation of the risk of a certain substance, while

risk management is a *policy* decision—such as cost-benefit analysis—on what to do about the risk", given the need to invest scares resources wisely (2006, 1260, emphasis added).

Acceptance of this approach to evaluating risk has been taken up unevenly, however. According to Wiener and Rogers, "widespread adoption of scientific risk assessment as the basis for American risk regulation" has occurred over the past twenty years, "while European regulation has remained more qualitative and informal" and oriented around the precautionary principle, which promotes action sometimes in the absence of scientific certainty (2002, 318). However, science-based risk assessment has quickly become the foundation for most globally prevalent risk-management systems (such as the Hazard Analysis and Critical Control Point – or 'HACCP' – system), as well as widely-applicable standards used to which are used to generate national food inspection standards (such as the Codex Alimentarius) (Hulebak and Schlosser, 2002). The method has been widely adopted across the meat sector, where it is used, Post explains, "to evaluate pathogen-commodity combinations in a probabilistic manner. For instance, regulators conduct evaluations of the likelihood of Salmonella contamination in eggs or Listeria contamination in processed meats, and try to identify the points where contamination is most likely to occur" (2006, 1266). Because the aim is to predict where contamination will happen, it is seen as a more preventative approach than more traditional approaches to meat inspection.

Some scholarly work in this vein tends to address challenges that emerge in the attempted implementation – at multiple scales, in varying jurisdictions, and using different approaches – of such a modern approach to food safety assurance. This leads to debates surrounding the role of global standard-setting processes, challenges in *communicating* risk to the public and anticipating the political consequences of food scares (Philipps and Wolfe, 2001; Randall, 2009). Some scholars take on issues related to the globalization of risk analysis and new ways of managing risk (related to international institutions, industry-led methods and techniques for expanding control within industry environments). Others look at the potential of - as well as challenges presented by - new modes of governance (i.e. audits or technology that enables traceability) (see Singh et al, 2009; Phillips and Wolfe, 2001; Bachev, 2012).

Generally speaking, risk management is – at least officially – seen as based in "politics, economics, ethics, science and law" (Center for Risk Analysis, 1994, 10). In other words,

various scientific and non-scientific factors ought to be weighed in determining how to act upon knowledge about risks. However, some scholars argue that scientific findings often take precedence and are touted as the only legitimate basis for risk *management* decisions – and that this tendency does not get recognized (see Sage, 2007; DeLind and Howard, 2008; McMohan, 2013). In other words, while the usefulness of scientific findings is officially confined to the realm of risk *assessment*, the argument is made that in practice, these scientific facts are seen as the only legitimate basis upon which to define food safety regulation through processes of risk *management*. In this way "science" is mobilized as a political resource, easily overshadowing other concerns that ought to be part of the process of weighing risks and benefits. However some scholars take critiques of risk assessment and management processes further, arguing that the scientific methods that are utilized in risk assessment are, in themselves, limited. In arguing that positivist science cannot capture all facets of food safety/risk, based on the notion that it does not take into account the "wider social and moral dimensions of risks associated with new innovations and practices" (Mcnaghten and Urry, 1998, 262), these scholars are essentially arguing that risk *assessment* processes in themselves are flawed. We turn now to such critiques.

Critiquing Conventional Views on Food Risk

Scholars writing in this vein problematize various facets of approaches towards the evaluation of food risk, using a variety of theoretical frames to problematize the regulation of food safety within global food systems. A body of literature that some scholars use to clarify their analysis of food safety governance engages with Foucault's concept of governmentality. It is argued that this way of viewing power can offer a useful lens through which to consider how and why this way of addressing food safety risks – and the types of regulation that it generates – have become so pervasive and resistant to meaningful critique. This view helped to clarify the political function of regulation and how that might be applied to the context of localized food safety regulation in Ontario.

Governmentality & Science

Unlike power that operates in more obvious ways, such as by way of outright coercion, governmentality – a different form of power – operates "at a distance" and works to shape conduct by "educating desires and configuring habits, aspirations and beliefs" in ways that

don't always get noticed (Li, 2007, 275). Thinking about power in this way can draw our attention to how "subjects are differentially positioned in relation to governmental programs (as experts, targets) with particular capacities for action and critique" (Li, 2007, 276). In part, this type of governance happens by way of knowledge production practices. By making certain "domains of life" visible – say, through particular ways of collecting and analyzing statistics or measuring – the state is able to justify acting in certain ways. So, in using the term scholars generally seek to draw attention to "certain ways of *thinking* and acting [are] embodied in all those attempts to know and govern the wealth, health and happiness of populations" (Rose and Miller, 1992, 174).

The implications of 'the power to regulate' in the realm of food safety governance can, some scholars argue, be better understood in considering how science – and the knowledge of scientific experts – can be utilized to accomplish political goals (see Dunn, 2007; Sage, 2007). In approaching risk management, it is generally accepted that questions like "how much weight should different kinds of risks be given?" must be asked, whether or not that is done overtly (Nestle, 2003). However, these value-based elements of risk assessment are often downplayed, while the supposedly primarily *scientific* basis for particular forms of regulation is referred to loudly and often. Indeed, scholars claim that science tends to be presented as the only valid basis upon which risk management can proceed. It is not that other values (social or economic or ecological) are made irrelevant, but that whatever secondary values are, in fact, being appealed to remain shielded when the focus remains on the science. However, in order to present the situation in this way, these complex risk-related questions must be effectively portrayed as *technical* ones.

This aligns with the way governmentality works, which involves "institutionalized practices of planning, regulation, law-making and so on operate by attempting to transform contestation over what constitutes improvement, and how the costs and benefits of improvement should be distributed [which are political and value-laden questions] into technical questions of efficiency and sustainability" (Li, 277). In other words, the exercise of the form of power known as governmentality attempts to transform how we think about government action. It is motivated by the fact that authorities generally wish to appear neutral, which enables resiliency in the face of criticism and can accomplish specific political goals without appearing to do so.

The deflection of critique is key. For Dreyfus and Rabinow (in referencing Foucault's view of governmentality), appealing to scientific expertise is an effective way of securing a "technical matrix" that cannot be challenged, as expertise tends to be "closed, self-referencing, and secure." Once this is established, failures to achieve the stated aims of the program in question can simply be "construed as further proof of the need to reinforce and extend the power of the experts" (1999, 192).

Science and the Deflection of Critique

A broader set of scholars speak specifically to some problematic ways in which 'science' can be invoked to these ends. The way in which 'science' can be used to legitimate particular practices was referenced by a variety of scholars, some of whom connected this practice to the workings of governmentality. A variety of research exists on related topics, ranging from case studies regarding particular foodborne illness outbreaks (DeLind and Howard, 2008) to broader studies of the epistemological basis for different food safety assurance systems (Kimura, 2012). (See also McMohan, 2013; Sage, 2007.)

Essentially, the practice of referring to the scientific origins of food safety regulations, as a way of deflecting critique regarding their impacts, is argued to have become a common – and dangerous – institutional practice. Given the way that scientific and technical knowledge is typically seen as objective fact, it is very difficult for one whom is not seen as an "expert" to argue with knowledge of this type.[1] In this sense, 'science' has become a "trump card" that can be invoked "in disputes about values" (Pielke and Reiner, 2004, 218).

Some of this work also draws on the notion of governmentality. Dunn, for example, published an article in 2007 which asserts that the preeminent global food safety assurance system - called HACCP – is used as an method of governmentality, enabled in part by the capacity of regulators to repeatedly reference science "as a mantra" to defend regulations instituted by the US Department of Agriculture and "deflect accusations they were *playing politics*…" (2007, 41). In other words, by asserting that regulations are based in science,

[1] This way of viewing science could be loosely referred to as conforming to a 'positivist approach', which Kimura writes characterized by a view of "the world as accessible and knowable by scientific methods", also asserting that science must be kept separate from social influences (2012, 207). This type of epistemological approach, however, has a long and complex history that cannot be elaborated upon here. Important to note is that what is generally seen today as 'objective science' is rooted in the philosophical stance referred to as 'logical positivism' and constitutes a particular mode of knowledge-making that is reliant of scientific observation and the separation of science from 'non-science' (Sismondo, 2009).

regulators can avoid the claim that they are based in politics. This in turn makes it easier for regulators to deflect criticisms based on the claimed *effects* of regulations. Indeed, since food safety regulation is intended to protect the public, science is, in this context, invoked in the name of protecting public safety. As McMohan says, "who can question food safety? The rhetorical reference to protecting consumers is a powerful legitimating discourse", having the effect of shutting down democratic debate (McMohan, 402, 2013).

This is a problem, these scholars argue, because of the way (described above) that risk assessment *does* consider more than just scientific facts. Part of assessing risks inevitably involves making value judgements based on other beliefs about what society needs or needs to avoid (and, as Li explains regarding governmentality, beliefs about how to characterize *improvement*) (2007). Further undermining the idea of heavily relying on science in generating regulation is its capacity to evaluate only certain kinds of risks – which are not the only relevant type of risks, it is argued. Khachatourians (2001) argues that while science lets us ask important questions about food safety, we have a misplaced tendency to call on 'science' to make decisions for us. According to Winickoff and Bushey, this "authoritative framework for risk analysis [is] touted as 'scientifically rigorous' but embodies particular value choices regarding health, environment, and the dispensation of regulatory power" (2010, 356). In other words, appeals to 'science' can have distinctly political impacts by justifying particular modes of regulation, covering up other values implicitly appealed to and negating the validity of other motivations that ought to be considered.

Legitimating / Undermining Food Systems

Within critical literatures on food regulation which refer specifically to local food systems, there is a tendency to problematize the political effects of 'scientism' – and the impacts of this type of risk assessment in general - in two prominent ways. First, some scholars argue that the standards that result from science-based risk assessment often tend to impact smaller and/or more locally-oriented producers or processors disproportionately. Secondly, others argue that standards that appeal to science tend to be used to cover-up the risks (of other types) posed by the dominant agro-industrial model of agriculture.

Arguments made in the first vein tend to analyze impacts of scale on agricultural businesses' capacities to comply with various standards born of science-based risk assessment processes.

Some studies have focused on the difficulties that farmers can have in complying with such standards. For instance, Ten Eyck et al. studied the implementation of one particular food safety assurance system (called Hazard Analysis and Critical Control Points, or 'HACCP') among small cider processors in Michigan. They found that these processors experienced a variety of barriers preventing them from implementing a HACCP system, based both on the costs associated with HACCP and on the fact that they did not have a role to play in its implementation (2006). Similarly, Taylor (2008) discussed the burdens of HACCP on smaller slaughterhouses in the US, citing examples which show that costs of implementation vary very little between large and small operations, meaning that larger plants can much more easily afford those costs. In another study Dunn described how the impacts of food safety standards on small-holders in Poland have been vastly underestimated – and ironically, in encouraging larger confinement-style livestock farms, the existing decentralized and relatively low-risk agricultural system is being replaced with a higher-risk system (2003). Finally, DeLind and Howard (2008) detailed how the responses to a 2006 e-coli scare centered on bagged spinach involved implementing a new set of uniform and centralized standards – modelled after the meat industry – which were *not* scale sensitive. They cited additional burdens on smaller producers emanating from large fines for noncompliance and unaffordable traceability mechanisms and insurance, arguing that these additional burdens accompanied this type of standard.

Secondly, a range of closely-related scholarship (see Stuart and Worosz, 2012; Dunn, 2005; Stuart, 2008) analyzes the legitimating role that science-based food safety systems can play in enabling conventional agricultural interests to maintain a prominent place in the food system, even if their core production or processing methods have risky tendencies. Sage, for instance, argues that appeals to scientific expert knowledge "obscure the values that lead the authorities to defend the dominant agro-industrial model over new innovations in the food supply chain in which there may be an attempt to recover a more sustainable, more socially just and more ethical approach to food" (2007, 207). Indeed, a major focus within this literature is on the additional values which are either *neglected* through risk assessment processes and/or those which are being *covertly* appealed to. Overall, the fact that conventional meat production and processing systems are able to abide by food safety

regulations gives them legitimacy and allows them to be seen as 'safe' businesses, which can be very misleading.

These analyzes build off the literature which details the ecological and social costs of industrial meat production. As Weis (2013) and others (including Freidmann, 1993 and 2005) have argued, the industrial meat system is built upon a grain-oilseed-livestock complex whereby grain (mostly corn) and oilseed (mostly soy) are produced on a huge scale by way of high-input agricultural production models (often subsidized) to feed livestock, thus making the production of cheap meat possible. However, this system is built upon an illusion of efficiency that invokes numerous risks that are not usually accounted for. With "the converging problems of soil erosion, diminishing freshwater availability, the decline of key non-renewable resources, and climate change" the system is becoming more vulnerable "at the same time as this system is an important factor *causing* climate change" (Weis, 2013, 66). These risks are typically either denied, or calls are made to address them with more technical solutions, such as draught-resistant seed or no-till production which relies, instead, on herbicides. These notions build on what Beck refers to as the 'risk society', whereby modernization creates new types of risks which then society must then figure out how to address (1992). In the same way, the industrial meat production systems create new kinds of risks which it must then account for – and one of the ways this happens is through food safety regulation.

The meat sector is a prime area in which we have seen new kinds of risks emerging (a phenomena which is widely recognized, including in more conventional literature on risk analysis – see Gangahar, 2009). Regulation in meat processing must mitigate new risks produced as a result of industrial livestock farming and meat processing systems. McMohan calls these "unique, risk-filled ecosystems" which, due to the global trade in meat products, allow "local mistakes to become international debacles" (2014, 411). Waltner-Toews argues that we have "created unprecedented evolutionary opportunities for microorganisms" and "through specific economic incentives given to agriculture we have created opportunities for a wide range of agents to have catastrophic effects on human, animal and ecosystem health" (1996, 4). For instance, the intensive confinement of livestock enables diseases to spread more quickly, with research showing increased 'shedding' of salmonella the longer cattle are in a feedlot (Khaitsa, 2007). And, at the processing level, exploding rates of animal

throughput on the disassembly lines of packing plants means extremely fast line speeds that provide many opportunities for workers to make small errors with huge consequences.

The hazards that characterize industrial agriculture go almost entirely unquestioned by those who purport to be focused on the control and reduction of food hazards: those conducting the risk assessments which inform the nature of food safety regulation. Science-based risk assessments of meat production or processing systems do not problematize many such risks, including threats to human health through anti-biotic resistance, threats to worker safety, or threats to rural food security which result from a declining capacity in local food systems (McMahon, 2013). At the same time, other values – such as the need to protect the conventional agricultural system, widely seen as a major engine of economic growth – are appealed to, but covertly. Regulation that essentially promotes these values is presented as being designed exclusively to protect public safety.

Wynne refers to the significance of this approach in impacting the British government response to the BSE crisis, claiming that the centering of public discourse around scientific risk assessment meant that many significant social and moral issues did not enter into public debate at this time – and thus, very little systemic change resulted. For example, questions regarding the morality of feeding dead livestock back to other livestock (who are naturally herbivores) was not raised by the scientific committee assessing risks, which meant that even though this process was limited it was not fundamentally questioned (Wynne, 1996).

In response, some scholars refer to alternative frames for risk assessment; McMohan calls for an "ecological public health lens" and Waltner-Toews calls for an ecosystems approach. He writes,

> Once we begin to think about foodborne illnesses within this integrated framework, we can begin to ask more specific questions not just about the individual parts - people getting sick, slaughterhouse hygiene, animal rearing conditions, economic well-being of producers - but also about how well the parts are accomplishing what we wish them to accomplish, that is, to provide us with a resilient, sustainable, health-nurturing, equitable food supply (1996, 6).

He goes on to assert that such an approach would be more likely to elicit "policy, management and technology options which promote ecological diversification and shorten the food chain (decreasing bacterial amplification time as well as distribution) and may also increase local knowledge of food processes and decrease the catastrophic potential of

failures" (Waltner-Toews, 10). In other words, such an approach would constitute a better way of decreasing food risks of all kinds.

Conclusion

Thus, as the past chapter has shown, significant work has been done which informs this investigation into the causes of abattoir closures and the politics of food safety regulation as an emergent factor in those closures. As discussed, the several case studies addressing the specific topic of abattoir decline in Canada (Miewald et al, 2013, Woodward, 2011, and McMahon, 2007) provided important direction for this project, as they addressed the state of abattoir decline in BC from various perspectives. As well, the uniqueness of the BC experience helped to clarify the need for similar work that considers Ontario's unique history and specific constraints. Work emerging from the US, as well as Ontario-specific academic and non-academic studies, also helped to contextualize this work. The fact that some region-specific research on the issue had been done in Ontario, as well as some initial but limited province-wide studies, further established the need for a province-wide in-depth research project investigating – and made it clear to me that there was significant contention as to the causes of abattoir closures in Ontario. Overall, a lack of extensive scholarly engagement with local slaughter infrastructure specifically reinforced the need for this research.

At the same time, the critical literature pointed to above has helped to bring this analysis to a deeper level. As will be explained below in more detail, an institutional ethnography lens guided this research and thus, the problematization of various institutional processes – including regulation, in this case – was taken up according to direction provided through participant interviews (Smith, 2005). In this sense, as the factors influencing the nature the governance of food safety became increasingly important to this project, these perspectives on risk assessment discussed above became increasingly important. From scholarship on the nature of risk assessment today through various critiques of these views, this work helped to inform my understandings of how and why food safety regulation is both defended and problematized.

Before launching into the substantive components of this thesis, the methodologies used to guide this research will be discussed more closely.

Chapter 3: Methodology

Framing: Institutional Ethnography

This is a qualitative research project that uses an institutional ethnographic approach. Qualitative research, in general, refers to research that seeks out illumination and understanding, as well as the ability to extrapolate findings to similar situations (Hoepfl, 1997) and instead of relying on statistical or quantifiable procedures, looks to real-world settings where the "phenomenon of interest unfold naturally" (Patton, 2001, 39). Institutional ethnography favours many of the same foundations of ethnography in general, an approach that "enables investigators to gather valid and reliable qualitative data through the development of close and continuing contact with those being studied" (Gold, 1997). Certain techniques, such as participant observation and formal or informal interviews, are foundational to both approaches. Institutional ethnography is also focused on the social relations that impact peoples' lived experiences, but which they cannot necessary be aware of from their vantage points (Smith, 2005).

Dorothy Smith developed this approach in the 1980s, emphasizing the way in which it could help researchers to explore "institutional relations and organization from the standpoint of people," which she argued had not been happening as researchers had a tendency to create "objects" of people they were researching (Smith, 2005, 28). At the core of the approach is an emphasis on viewing what might be seen as "macro" level phenomena as social relations that are coordinating or influencing peoples' lives and work. In this way, the institutional processes examined are pointed to "as the research is pursued. From the beginning stages of inquiry, lines of further research emerge that are articulated … as research uncovers the social relations implicated in the local organization of the everyday" (Smith, 2005, 35). So, as directed by peoples' experiences, the researcher traces institutional practices; in other words, they explore the "clusters of ruling relations interconnect[ing] around a specific function, such as health care, child protection or television news" (McCoy, 2007, 703).

This approach was appropriate to my goals with this project because I felt it important to undertake an analysis of abattoir closures that centered abattoir operators' lived experiences pursuing a livelihood in this line of work. However, I also knew that abattoir operators would

have particular perspectives from which they view challenges in the sector, which I surmised tht I could potentially help to make sense of as a researcher, in ways that could be valuable to those stakeholders.

Therefore, I aimed to make sense of what has been happening in Ontario's local meat sector and, given my interests and involvement in various initiatives prioritizing 'healthy, local food systems' (which I explain below), I surmised that this could potentially be useful information for other advocates. Indeed, Smith argues that this method tends to be useful for activists, since "knowing how things work, how they're put together, is invaluable for those who often have to struggle in the dark" (32, 2005). In shedding light on such relations, Pence describes that "problematic institutional practices lying within practical reach can be identified, creating possibilities of change from within" (2001; cited in Smith, 2005, 32). This also points to one of the ways in which I am embedded in this research, through my experiences as a volunteer with an Ontario-based advocacy group which, among many areas of interest, is concerned with abattoir closures. I turn now to a short discussion of my own positionality within this research.

Positionality

According to Maher and Tetreault, "knowledge is valid when it includes an acknowledgement of the knower's specific position in any context, because changing contextual and relationship factors are crucial for defining identities and our knowledge in any given situation" (1993, 118). As such, my own background and personal perspectives play into this research in ways that I may or may not realize, and it is important to bring to the forefront some of the elements of my own position that did (or could have) influenced this research.

I am a young, white female who grew up in a middle-income family in a small Ontario town. I have been privileged to have access to higher education, having already completed a Bachelor of Arts in Political Science, and further, to subsequent work and volunteer opportunities of various types. Following my BA I worked for three years on a variety of farms because I had grown increasingly interested in ecological agriculture over the course of my degree. My ability to tolerate low-wage farm work during that time is another indicator of the basic level of financial security I possessed. These three years spent farming gave me a

taste for 'the farming life' – but by no means make me an expert on it. I have no idea what it is like to work as a full-time livestock farmer or – even less so – as a butcher. I do not have a vast knowledge of this industry, unlike most all of the people whom I interviewed.

I also grew up as a vegetarian. Meat, which had always been an "icky" substance to me (as well as a morally unacceptable one at times), only became worth considering as something to eat after I began to learn about agriculture and various approach to animal husbandry. My moral compass shifted around the same time that I learned how to urge pigs into a truck headed for the slaughterhouse, as I became both a meat-eater and an advocate for what I have come to see as ecologically sound and (reasonably) humane livestock agriculture. Nevertheless, I (like many others) have a complicated relationship meat, and am 'new' to meat in most ways. Thus, despite the fact that I probably appeared as an "expert" in some way to those I was interviewing, my experience with this industry and topic was preliminary, at best.

Finally, the way in which I came to pursue this project has impacted this research. In the fall of 2012 I became a volunteer intern with Sustain Ontario, a non-profit, multi-stakeholder provincial alliance that promotes healthy food and farming. I was assigned to administrate their 'Meat Working Group', which was an informal collection of individuals across the province interested in working toward a stronger locally-oriented meat industry. I had become aware of a lack of slaughter capacity in parts of Ontario through experiences working on a farm in Eastern Ontario, but it was not until this time that I realized just how many abattoirs had closed in recent years. Through this work I heard many stories regarding the impacts this decline was beginning to have on farmers. I was also present for a variety of meetings and became aware of various new initiatives across the province related to abattoirs as a result of this work. These experiences framed my personal perspectives and also compelled me to pursue this as a research topic.

As a result these features of my position, as well as how I appeared to interviewees in my role as researcher, there was no doubt a complex set of power dynamics at work as I conducted the interviews. For example, I probably appeared (unjustifiably) as an 'expert' (being from Toronto, and associated with a University), at the same time as I looked like a naïve female who did not know very much about meat processing. Therefore, the people with

whom I spoke – who were usually blood-splattered butchers in their mid-fifties – reacted to me in a variety of ways. Most were initially hesitant but when I presented my goals, which were mainly to hear about what challenged them in succeeding in business, many seemed to quickly become more comfortable.

At other times, my appearance or identity may have infringed with my capacity to conduct thorough and effective interviews, as several individuals declined to return my calls and one outwardly refused to participate (admittedly, this was a small percentage of the individuals I approached.) This may have been because some interviewees could not relate to me, given my association with the academy and with Ontario's largest city, as well as in being a young female. In addition, my role as a volunteer with Sustain Ontario (an advocacy group) altered the way that I was viewed by a few stakeholders. Sustain Ontario had been collaborating with some of the stakeholders I interviewed already (the OIMP and Malcolm Women's group, for instance), which meant that I had come into contact with some of the individuals previously. However Sustain Ontario's Working Group also included many members with very strong feelings about the causes closing abattoirs, which may have influenced how I was viewed by particular stakeholders.

To address the first association (as an urban academic), I made an effort to appear sympathetic to the challenges faced by the interviewees (which, usually, I genuinely was). I also tried to avoid presenting myself as especially business-like or professional, in order to avoid playing up this 'expert' image, and emphasized the fact that I was working independently and was free to draw my own conclusions for this project, in an effort to mitigate any fears of being misrepresented that stakeholders had. In the end, almost all stakeholders I spoke with were very kind and extremely generous with their time. To address the second association, I did my best to emphasize that I was engaged in a research process which had been informed by my experiences at Sustain Ontario, but was being pursued according to academic guidelines and was going to be conducted in a fair and ethnical manner.

In-depth Interviews

This research project began with several objectives at the forefront, the first of which involved a broad question: why have Ontario abattoirs been closing in such large numbers

over the past 15 years? To address this first objective, I knew I wanted to talk to abattoir operators – both those who were still working in the industry, and those who had quit – because I wanted to be sure to give those with direct experiences in this industry the voice they are due. I also wanted to speak with a broader range of stakeholders, from farmers to lobby group representatives, to be able to compare and contrast their views.

I chose to conduct in-depth, semi-structured interviews because I wanted to understand how a variety of individuals interpreted the state of Ontario's local meat processing industry. I sought to understand how individuals understand their own challenges (and the causes of those challenges), as well as their own nuanced views of the structural changes they saw happening within their industry as a whole. I also wanted to give them an opportunity to identify, without prompting, the most significant challenges they had personally experienced (in the case of those working directly in the industry themselves.) Thus, it was important that I be able to begin with open-ended questions and ask appropriate follow-up questions depending on what topics my interview subjects brought up.

I interviewed various types of stakeholders in the local meat processing industry: abattoir operators/owner (former and current); representatives of several agricultural / meat processing organizations and lobby groups; a small collection of livestock farmers targeting local markets; and several employees of the Ontario Ministry of Agriculture and Food (two former and one current.)

Recruitment

I recruited abattoir operators, who made of the majority of interviewees, in several ways. First, I made use of the Ontario Ministry of Agriculture's database of operational abattoirs which is available online. This was especially effective in terms of identifying operators based on geographic location. Using this directory I called approximately 22 abattoir operators, 18 of which were eventually interviewed. (The others either failed to return my calls or, in one case, expressed not being interested in doing an interview.) In addition, after having begun the interview process I made use of the "snow-ball" technique by asking individuals to recommend other operators that I might interview. Usually they were willing and able to do so, and offered the name of a business, the contact information for which I was able to easily access online. This technique was more effective in some cases than in others

and overall, most of the individuals whom I interviewed were simply identified through the OMAF online directory.

Former operators were more difficult to contact because they were no longer listed in the OMAF database. Instead, organizational contacts (one from Sustain Ontario and another from the National Farmers' Union) helped to alert me to former operators, and the "snowball technique" also worked well for former operators in several cases. Also, lobby and advocacy group representatives were generally straight-forward to contact, as their contact information is listed online. Farmer contacts were made through recommendations from other stakeholders and through web-based searches for locally-oriented livestock farmers within particular geographic areas.

I was able to identify and arrange interviews with a wide variety of interviewees: operators, farmers, and representatives of relevant organizations. Of the 28 interviews conducted, 18 of these individuals were operators of abattoirs (either former or current), 8 were farmers and 5 were representatives of lobby groups, either formal or informal. Some interviewees fell into multiple categories (i.e. farmer and lobby group representative, or abattoir operator and farmer.)

Participants

Several guidelines were used to select interview participants. First, I aimed to interview individuals operating different kinds of abattoir-based businesses. For example, I aimed for a mix of individuals that included some offering only slaughter and cut/wrap services, others also offering further processing, like smoking and curing, and others also operating retail butcher shops. Secondly, I interviewed individuals operating at a range of scales, from the very smallest (several had only a couple of employees) to those with much larger facilities, workforces and a wider diversity of activities. I also aimed to interview those who operated poultry as well as red meat facilities. Finally, I spoke with at least several operators in every major region of Ontario (East, South, Central, South-West, and North.) My aim, however, was not to achieve a representative sample but rather to capture a range of opinions on the topic.

Ensuring that recruitment strategies identified individuals in this range of categories was, at times, challenging in part because I did not know many details about each abattoir / operator

before undertaking a full interview. In some cases, however, it was less difficult, like when it was obvious based on the business name that an abattoir slaughtered poultry or that a business that included a retail shop (and in such cases, I could avoid calling businesses that fit into categories of operations already well represented). Overall, though, the main strategy used for abattoir operator recruitment (random selection from the OMAF directory) resulted in a wide variety of operations being represented.

Within the category of organization representatives I interviewed representatives from the National Farmers' Union, the Ontario Independent Meat Processors (the organization that formally represents Ontario's small and mid-sized operators) and several individuals working with the Malcolm Women's Institute and Sustain Ontario. As well, one interviewee had been informally associated with an adhoc committee of the Ontario Federation of Agriculture, referred to as the Committee of Concerned Abattoir Operators. I also interviewed two individuals who had worked as meat inspectors previously (one in the late 1990s, and one in 2010) and one current government representative who worked as a manager in the Meat Inspection Branch at OMAF.

Approach

Most interviews were conducted in person, but about five were conducted over the phone for logistical reasons. I choose to conduct the interviews in person because I felt it was important to engage with stakeholders in a way that would allow them to be most at ease. Indeed, there were reasons for which some operators expressed feeling unsure about speaking with me, which made it even more important that I attempt to lessen these anxieties as much as possible. Abattoir closures (and food safety regulation in particular) are highly political issues, and some operators seemed to worry about their sometimes critical views being made public or available to authorities. I believe that conducting the interviews in person and on-site at the abattoirs helped most operators to be comfortable speaking with me.

However, approximately three individuals who were approached declined to participate, either informally (by declining to return multiple phone calls) or overtly (in the case of one operator, who said he was simply not interested.) Several others suggested I approach them at a later date but, because this was not possible for me, the interviews did not go ahead. To address these types of anticipated barriers, I assured them that I would use pseudonyms when

referencing them in my work and that I would not share any identifiable information about their businesses, except when needed to provide some context to their comments (i.e. the type of abattoir they operate, or the region in which they are located). I believe that these assurances did help to encourage many operators to speak more freely with me than they otherwise would have. These techniques and others were approved by the Ethics Review Board at the University of Toronto.

Each interview lasted between 45 minutes and an hour and a half, depending on how much the interviewee wanted to talk and how much time we both had available. Most individuals were eager to discuss these issues and many interviews went beyond the allocated 45 minutes, even after I offered to end the conversation. Twenty-five interviews were conducted because I decided that the point of saturation had been reached; I had interviewed individuals from every major region of the province, and the operators I had spoken with represented a diverse selection in terms of background and business type. Most importantly, the topics they were discussing and their views on the issues at hand were reflecting viewpoints that I had already heard expressed multiple times.

Semi-Structured Interviews

I chose to use a semi-structured format because I wanted to have the flexibility to allow interviewees to discuss the topics that were of greatest concern to them. According to Hay, semi-structured interviews "have some kind of pre-determined order but still ensures flexibility in the way issues are addressed by the informant" (2010, 52). I also felt it was important to be able to articulate questions in slightly different ways depending on the interviewee, since research shows that language (including body language) can play an important role in putting interviewees at ease, and improving the effectiveness of the interview (Ritchie & Lewis, 2003.) To structure the interview process to some extent (in order to ensure consistency and that all areas of questioning were covered) I made use of an interview guide, which included some prepared specific questions and also ideas for prompts that could be used if needed (see Appendix 1).

Following a "funnel" method (Hays, 2010), I began each interview with a series of general questions pertaining either to the type of abattoir or farm the person was operating or to their role in the organization they were representing, along with the activities of that organization.

Then, later on in the interview I asked more personal questions (such as "what have been your greatest challenges in the industry?) (Hays, 2010). Overall, many facets of the lives and work of those interviewed were discussed in detail by interview participants, exposing me to a complex world in which technology, rural culture, consumption habits, state regulation, and an economic system with particular tendencies are all at play and interpreted in a wide variety of ways.

Secondary Document Analysis

Although most data was collected during these interviews it was supplemented and expanded upon by way of secondary document analysis. This took the form of analyzing both current and historical documentation; these sources became especially relevant as interviewees brought up a wide variety of industry challenges – a major one of which was provincial food safety governance– and these pointed me towards new areas to investigate.

Documents analyzed consisted primarily of government literature, including policies and regulations, reports and newsletters, along with reports done by non-profit organizations and lobby groups. These documents were primarily available online and were identified in a variety of ways: they were cited in other documents, pointed out to me by interviewees, brought to my attention through volunteer work with Sustain Ontario, or found via web searches. These documents proved important in allowing me to access a broader range of statements and opinions being made by several major institutional stakeholders that became central to this research, including OMAF (the Ontario Ministry of Food and Agriculture) and the Ontario Independent Meat Processors (OIMP). This document analysis took place alongside the interview process, which was done over a period of six months, as well as after the interviews had been completed.

I also undertook some archival work, due to a lack of secondary historical documentation regarding some specific elements of the history of livestock agriculture and meat processing in Ontario that I wished to understand. To this end, I conducted a small amount of archival research at the Ontario Archives. Ethical issues can arise with archival research, as McKee and Porter explain. "Existing in the liminal spaces between person and artifact, researcher and researched, archives create ethical gray zones for researchers where decisions about how to proceed - or even whether to proceed - can be difficult" (2012, 60). There are questions

about consent (especially when concerning vulnerable populations), the researchers' motives, and 'the line' between private and public (McKee and Porter, 2012). To this end, consideration was given to the context within which these historical records were created, including the fact that some employees of the provincial government may not have anticipated that their reports or faxes would become public.

However, I was able to mitigate these potential issues in various ways. I carefully considered my motives in utilizing historical sources as part of the ethics review, and avoided some potential consent issues by relying solely on publically available, government documents. I accessed various government sources, from reports, to letters or faxes between government departments (namely, the Veterinary Health Branch and the Meat Inspection Branch of the Ministry of Agriculture and Food), to submissions of agricultural lobby groups to the Ministry of Agriculture (mainly to the Agricultural Marketing Inquiry Committee.) The individuals cited were speaking only about topics related governance in the meat processing and/or agricultural sectors, as industry-development and strategies for the protection of public health. Overall, the debates and events that took place within the Ministry of Agriculture, which were reflected in these archival documents, contributed to filling in gaps in my understanding of this history, and also contributed to this research by broadening my own views on the industry in a general sense.

As well, I participated in a variety of industry and advocacy-related events and meetings that informed my perspectives and research indirectly beginning in the fall of 2012. For example, I attended the 2013 Ontario Independent Meat Processors (OIMP) Trade Show, Sustain Ontario's 2013 'Bring Home Food' Conference (which included two sessions focused on meat and local abattoirs) and several industry consultations hosted by OMAF staff during the spring of 2013, when regulatory amendments to Ontario Regulation 31/05 were being considered. I also engaged with these issues in other jurisdictions. I attended a conference in the North-East US, the New England Meat Conference, and I visited a community-owned "modular" (moveable) abattoir in British Columbia, both of which helped me to broaden the scope of my knowledge of local meat processing industries and to put Ontario's situation in perspective. I do not directly cite any information that I received from these meetings, but they did inform my overall understanding of local meat issues and helped me to ask more relevant questions during interviews.

Coding and Analysis

Following the completion of each interview, transcripts of the conversation were created. Then this interview data, as well as a variety of key documents, was analyzed using NVivo software. Various themes were identified in the data through the creation and assignment of codes. These are words or phrases that "assign a summative, salient, essence-capturing and/or evocative attribute", most often to find patterns in the data (Saldana, 2013). Of course, this type of pattern identification is complicated, as categories that we construct for comparison often inevitably have "fuzzy" boundaries and reflect the lens through which we view the situation (Saldana, 2013).

I made use of codes to identify which topics were raised most frequently by interviewees, as well as which themes were raised most often in different types of secondary documents. By beginning the coding and analysis process relatively early, I was able to identify areas that were becoming important and was able to add additional probes to my interview schedule in order to be able to encourage interviewees to offer their opinions on these topics. Indeed, Miles and Huberman (1994) assert that coding *is* a form of analysis. For me, the code creation process, as well as the patterns it revealed, allowed me to draw various conclusions. In addition, the conceptual map provided by this coded data provided the foundation for further analysis. Specifically, elements of the institutional processes that play into the experiences of abattoir operators in Ontario were exposed more clearly in analyzing the patterns exposed through the coding process.

Conclusion

As I have explained over the course of this chapter, I undertook this research using an institutional ethnographic frame, and through the use of in-depth, semi-structured interviews with stakeholders in Ontario's provincially-regulated meat processing sector. Enhanced by document analysis and (limited) archival research, this project can offer new empirical analysis based on the lived experiences of a variety of stakeholders in this sector.

Now, this analysis begins by offering a glimpse into some of what makes Ontario's situation unique. To this end, the following chapter will illustrate the rise and decline of Ontario's two (though not entirely separate) scales of meat production and processing, from the late 19th century through to the present day. Some of the historical moments that defined Ontario's

history of livestock farming are outlined, setting the context from which the following chapter – which outlines findings regarding perspectives on the sector's decline today – will proceed

Chapter 4: History of Ontario's Meat Sector

The following section will explore a small part of the history of both animal agriculture and meat processing within the province. In focusing on these histories, I hope demonstrate a few things. First, I hope to show that the trajectory of both these sectors can be defined by two simultaneous processes: consistent and remarkable persistence, and ongoing and gradual decline. These parallel tendencies, which have played into the landscape of meat production and processing in this province, as well as the ways in which it is regulated, can be understood far more clearly in light of this history.

Ontario came to be a province where both a highly industrialized, export-oriented meat packing industry *and* an expansive network of medium and small mixed farms and regionally-oriented abattoirs co-exist; however, Ontario's meat sector is dominated by very large meat processing plants. At present, a handful of plants control most of the meat processing that occurs in Canada, with four companies owning 97% of beef processing infrastructure, for example (Rude et al, 2011). At the same time, Ontario has long retained a widespread network of local abattoirs operating under a long-standing provincial inspection framework, alongside a broad base of smaller farms that depend on the services those abattoirs provide. This chapter points to some of the key reasons for which Ontario developed these large meat packing plants, pointing to how these legacies could be influencing current regulatory policy today. It also sheds light on the political factors which led up to the creation of both the federal and provincial meat regulatory systems, which is especially relevant later in this thesis when the discussion turns to politics and regulation.

This chapter proceeds with three sections. It begins with a discussion of Ontario's origins as the epicenter of a growing nation full of farmers who moved from crop to crop as opportunities ebbed and flowed. It goes on to discuss the separation of meat processing into two scales at the turn of the century: industrialized meat plants, characterized by federal inspection and dominated by the "big three" companies until the early 1990s, and locally-oriented abattoirs, characterized by smaller businesses and, as of 1962, regulated by the province. Next, the changes these scales of processing undergo through the 20th century are

traced, with particular attention given to the factors leading up to the creation of both levels of inspection, as well as the geographic shifts in the meat industry across Canada over the course of the century.

Building an Agricultural Nation

The story of Ontario's small slaughterhouses and meat processing plants is also the story of Ontario's farmers. From the early days of settler farming in the province, the first local slaughterhouses or travelling butchers emerged because farmers were willing to pay for their services. At first, it was convenient option for a farmer to have a butcher slaughter their livestock and cut their meat, as they were likely capable of doing it themselves. But as they raised more animals, more farmers would have needed a village butcher to whom they could pass off this work. Beginning in 1962, however, all Ontario farmers were required to have a licenced butcher slaughter and process their meat (unless they would be selling it only from the farm). It is therefore important to consider the development not just of a provincial meat processing sector, but of a provincial livestock farming sector as well; thus, this chapter begins by considering Ontario's roots as an agricultural region.

The kind of agriculture we know today began with the clearing of lands in Upper Canada (which would later become Ontario) by colonial settlers, mostly British. These settlers began arriving in in the 17th century and set to work clearing trees and tilling the land however they could manage. Of course, they were not the first to do so; indigenous people had numbered approximately 80,000 in the mid-1600s and some groups had been practicing agriculture for centuries (Dean, 1994). But French and English settlers brought with them a different way of farming and new crops which demanded ever-growing swaths of land. Ontario's hardwood forest were a formidable impediment to the farmer, as well as a huge resource for those in the lumber business, and the clearing of land was taken on with vigor, transforming the Ontario landscape from woodland to farmland in less than a century (Wood, 2000).

By the early 1800s much of southern Ontario was being farmed by European settlers, and a few factors determined what they were growing and at what scale. The fact that land had to be cleared using nothing but human and animal power made it more valuable on a per acre basis and encouraged intensive land uses (such as growing grain) rather than extensive ones (like grazing animals), as did markets for wheat in the early century (Kelly, 1971). Large-

scale raising of livestock was not an obvious choice in the early 19th century partly because of effort required to clear land. In contrast, cattle grazing easily took hold in the American prairies a little later, in part because regular fires had maintained treeless landscapes perfectly suited to grazing animals (Cronon, 1991). In 19th century Ontario the labour that had to be done before farming could begin (or prior to a farm's expansion) influenced the nature of the farm landscape that emerged in this province.

In examining the early days of settler agriculture in Ontario it is important to notice the various factors which influenced peoples' choices about what to grow and how to grow it. Crops that were both consistent and reliable were very desirable in a new, rough environment where had to prioritize meeting their most basic needs above all else. Throughout these early years of agriculture in Ontario, farmers were constantly trying to 'hedge their bets' and provide themselves with assurance of a basic living, even in the case of poor harvests or unfavourable market conditions. To this end, diversity and consistency were qualities that they sought in their choices about what, when and how to grow. As they developed their farms, Ontario settlers often prioritized reliability, even sometimes above profitability, as a way of managing the risks they faced (Ankli and Millar, 1982). Thus, diversifying and choosing to raise crops that brought reliable returns were two strategies that enabled resilience in rural Ontario. These strategies contributed to Ontario's origins as a province of mixed farms and – in many ways – these strategies remain in use in parts of rural Ontario today.

Livestock did have a place on mixed farms from the early 1800s through the 1850s, but it was not until the later that the specialized production of livestock animals (for meat or dairy) emerged as a significant element of Ontario's agricultural economy. At mid-century, farming families usually had draft animals (horses or oxen) as a source of on-farm power, as well as a cow to provide them with milk. This necessitated periodically breeding cattle, which tended to mean regularly slaughtering some of them to consume or sell (i.e. male calves born of the dairy cow). Raising pigs was common as well, as the meat was easy to preserve for many months with salt alone, and because hogs can transform food waste very efficiently into meat (Giesbrecht, 262). At this time, the raising of both cattle and hogs was "very largely directed toward household or, at best, local community consumption", but nonetheless contributed in important ways to farm output and income (McInnis, 83). At mid-century, livestock were

generally "small, relatively unproductive, and above all had the ability to withstand lengthy shortages of feed", as grain tended to be sold or eaten by the family, with animals not a high priority (Kelly, 1971). Most farmers were instead committed to the production of wheat, beginning in the early century but increasing in volume and consistency by the late 1840s (McInnis, 1992).

By the mid-19th century it was common for mixed farms to include crops like oats, rye, wheat, buckwheat, flax and corn; apples, cherries and other fruit in the more southerly regions; vegetables and especially potatoes, especially in the east; maple syrup and sugar; and beef, pork and hens (Wood, 89). Importantly, though, diverse or "mixed" farms did not necessarily mean *subsistence* farms, as we might be prone to assume today. Historian V.C. Fowkes wrote about Ontario's farmers in the mid-19th century, saying "the greatest proportion [of the population of the St. Lawrence region] were 'dirt' farmers, but they were not self-sufficient producers. They did supply a high proportion of their own requirements and conversely they consumed a high proportion of what they produced. But they also bought and sold…" (1947, 117). Indeed, as Freidmann emphasized in her characterization of the first food regime (1870-1914), Ontario was built as "a frontier of family farmers who 'could exist *only* through international trade…'" (2005, 236). The products that these farmers were growing and selling was, in most cases, wheat.

The (brief but formative) 'Wheat Boom'

The production of wheat in Upper Canada (which soon became Ontario) was a key part of Canada – and Ontario's – agricultural development. Among the original Canadian provinces, Ontario was and continued to be the wealthiest, partly due to the growth of its agricultural sector, which was unmatched by the other provinces, including nearby Quebec (or 'Lower Canada') (McInnis, 83). This 'wheat economy' emerged for several reasons. First, Ontario land – recently-cleared and therefore quite fertile – allowed for wheat to be produced at a low cost, and the climate in southern Ontario in particular was favourable to wheat production. However, because of the soil's fertility in the early 1800s farmers tended to push it too far, growing year after year on the same land without replenishing nutrients by growing other crops or adding animal manure. These soil-degrading growing techniques eventually caught up with Ontario farmers (Kelly, 1971), at the same time as new fertile soils came under the

plough in the grasslands further West (which were themselves severely degraded later on, contributing to the 'dust bowl') (Cronon, 1991).

Second, there were favourable markets for wheat, both within Canada (including in Quebec, easily accessible via the St Lawrence River) (McInnis, 1992) and overseas in the UK (McLachlan, 2001). The attractiveness of foreign markets for Ontario's wheat growers shifted many times due to a variety of factors, including changing tariffs (including the UK's Corn Laws, which gave a preferred trading position to Canadian grain merchants from 1815-1846, and the Reciprocity Treaty, which established a free trade agreement between the US and Canada for the 11 years between 1854 and 1865); the development of new transportation infrastructure (railways in particular); and the changing competitive landscape as Ontario's advantages shifted as the Western provinces – and US states – were settled and transformed into major agricultural export regions (McInnis, 1992).

The wheat economy in Ontario, however, was fairly short-lived. According to McInnis, "the outstanding feature of Canadian agriculture in the decades immediately following Confederation in 1867 was a shift from the production of wheat for export to a mixed farming that emphasized meat and dairy products" (1992, 85).

The Move toward Livestock

The wheat economy began to decline for numerous reasons, not the least of which was the fact that it simply became harder to grow wheat. Soils were becoming less productive (due to the repeated cultivation of wheat with little soil amending) and several destructive pests and diseases were moving west, impacting more and more Ontario farmers beginning in the 1850s (Fowke, 1947). Also contributing were broader political and economic changes taking place at this time.

First, extensive railway development (both within Canada and across the US border), which had accompanied the Reciprocity Treaty, made it feasible for farmers to trade in of a broader array of agricultural products. Markets for other small grains (like rye or barley), fodder for animals and livestock grew as a result (Ankli, 1971), with exports of Canadian cattle to the US increasing almost 20 fold (from 8,300 to 147,000) between 1850 and 1866 (Fowke, 117). As well, the explosion of settlement in the American West, which preceded the settlement of the Canadian Prairie Provinces by several decades, flooded the market with cheap grain and

pushed out Ontario's comparatively small and inefficient grain-growers (McLachlan, 2001). A series of technological inventions, including the grain elevator, precipitated a new way of selling grain as a standardized, graded commodity which mostly passed through the mid-western hub of Chicago (Cronon, 1991). Although Canadian wheat disappeared from the markets for a few years, large-scale settlement and grain farming in the Canadian prairies after about 1900 did return Canada (with the prairie provinces) to the top of the wheat game (Ward, 1994; McInnis, 1992).

A third reason why Ontario farmers moved towards meat and dairy related to the growing appeal of these products to both farmers and consumers alike. New technologies like refrigeration and pasteurization made products like cheese and butter easier to produce and sell on a large scale (Bogue, 1947). At the same time, the demand for meat and dairy products was growing, with people in bustling Ontario towns and cities seeking out fresh meat (Giesbrecht, 2012). By 1880, fresh meat – from beef to pork to wild game - was widely available in over 165 butcher shops spread out across the city of Toronto. This was facilitated (or perhaps *caused*) by a shift in consumer buying habits, as people began to buy cut meat as opposed to live animals which they would slaughter themselves, as had previously been the norm (Kheraj, 2013). At the same time, overseas markets for meat were growing. The value of animals to farmers was growing too, as there was broader understanding of the importance of regular additions of manure for maintaining soil health (Bowley, 1996). Plus, as farmers were moving away from oxen and towards horsepower at this time there was more interest in "improving" (breeding) cattle for eating quality as opposed to strength and mass (McLachlan, 2001).

Finally, Ontario lands were well-suited to producing high quality grasses that cattle could graze before being fattened on corn, as was becoming the accepted practice. As the Ontario Beef Producers Association bragged in an industry report written in 1959, "Ontario's advantage in beef production seems to be in the direction of plenty of high-quality grass and roughage, plus close proximity to large urban centre…" (Agricultural Marketing Inquiry, 1959a). This grass was limited, as Ontario's pastures cannot compare to Alberta's wide range land but, at the same time, producers and consumers were turning towards grain-fed beef. Eventually the advantages held by the Western provinces (both in terms of grass and corn production) would lead to a shift in the Canadian "centre" of cattle production to Alberta, but

this took place after the Second World War. In the meantime, Ontario became Canada's premier beef-producing region. Cattle born in Western Canada were shipped to Ontario for "finishing" on grains (McFall, 1927), with exports of beef to the UK increasing more than threefold during the course of the 19th century (Bogue, 1947).

Many farmers moved into dairy and meat production in the late 1800s while maintaining diversified mixed farms (again, as a strategy that enabled resilience) (Bowley,1996). However, there was also growing interest in specialization at this time, mirroring the promotion of "scientific agriculture" and the employment of scientists to solve farmer-identified problems. Debates about the merits of mixed versus specialized farming were common in the early decades of the 20th century, with a 1909 edition of *Farmers Advocate* promoting the blending of the two methods into a "well-ordered system of specialized mixed farming" (Bowley, 1996, 102). Thus a variety of approaches were taken towards dairy and meat production, with some regions – and farms - specializing more than others. Regardless of these differences, though, beef and cheese became the predominant commodities traded on the global market by 1900, together making up 30% of the value of Ontario's farm products (McInnis, 1992).

It should be noted at this point that raising dairy animals and raising livestock for meat were endeavours that complemented each other and helped locally-oriented abattoirs to survive. Not only were similar types of infrastructure and skills needed for both, but other complementarities – such as the abundance of whey, an excellent pig food, which accompanied cheese-making – meant that these ventures tended to support one another. As well, despite the fact that dairy farmers do not require slaughterhouses as much as, for instance, hog farmers, they *do* require slaughter services. Due to cow biology (only females produce milk - and only after they have recently given birth), dairy farmers are consistently presented with new calves which, roughly half the time, are male. Since they have need of only a few males (for insemination purposes) dairy farmers generally have them slaughtered as lower-value beef, or sometimes as veal. As well, once cows (female) have reached the end of their productive years they are also generally taken to the slaughterhouse.

Dairy production grew in many parts of the province and, eventually, in 1970 the *National Milk Marketing Plan* was put in place to coordinate the activities of existing provincial milk

marketing boards, with the overall goal of stabilizing milk prices so that farmers would be fairly and consistently compensated (Canadian Dairy Commission, 2010). This was the beginning of the dairy supply management system, which led to a great deal of stability in the sector and also contributed to the success of locally-oriented abattoirs. However, dairy farms have also grown tremendously in size over the past 40 years and quota has skyrocketed in value, making it quite difficult for new or small dairy farms to enter the sector (Elskamp and Hailu, 2013). These trends have likely played into the current state of locally-oriented abattoirs in Ontario, as will be discussed later in this thesis.

Overall, Ontario emerged in the early 20th century with an agricultural sector with two key features which would influence the course of agricultural development for years to come. First, it was a province originally made up of mixed farms which had traditionally included livestock along with grains and vegetables and, in some cases, products like maple syrup or fruit. At the same time, these farms were engaged in commodity markets more or less since the first European settlers came to the region; they were not exclusively subsistence farms from very early on. Secondly, when the wheat-based staple economy of the mid-19th century drew to an end, farmers were ready to adopt another one (or several) primary agricultural products as their primary crop. This meant that they were open to meat and dairy farming – and they turned to these endeavours in large numbers. Many other factors contributed to the fact that these commodities were quite widely adopted: the rapidly growing demand for meat and dairy both locally and in foreign markets; technological developments that enabled wider trade in these products; and land well-suited to livestock production in many parts of the province. As livestock grew in number, so did the slaughterhouses and butcher shops needed to process these animals.

Turn of the Century: Multiple Scales of Livestock Farming and Slaughter

As the 19th century drew to a close, two things were taking place: domestic and foreign markets for animal products were growing and Ontario-based entrepreneurs were following in the footsteps of Chicago-based meat packers by opened mechanized slaughter and processing plants. As meat packing industrialists capitalized on growing markets for meat products the processing industry in Canada was transformed between 1900 and 1920. This was especially the case in large cities like Toronto, where the many of the new packing

plants were being built. In 1900, 75% of beef eaten in Toronto had been killed in a small slaughterhouse, the work done by two or three men; but by 1920, 95% of beef eaten in Toronto came from large-scale packinghouses (Rennie, 1969, 23). (Importantly, however, this number would not have been nearly as high outside of the city.) At the turn of the century Ontario was at the cusp of a major transition.

As mentioned, farmers were increasingly being drawn into cattle farming; and, at the same time, many more had begun raising hogs for sale, though that had been common practice for longer. During the preceding decades hogs had been mostly slaughtered on farms and the carcasses transported to cities to supply the early pork processing plants, like the William Davies plant in Toronto (built in 1857), which packed and salted pork seasonally for export sales (Kheraj, 2013). But by 1886, the Davis operation had expanded to the point where they were processing 75,000 pigs per year, which meant a much greater need for Ontario-raised hogs. Thus, expansion was occurring in all areas of livestock farming. It was significant that, with an expanding railway system, hogs could now be transported to slaughterhouses *live* (since they were much harder to lead to market, as had been the practice with other animals in some cases.) And, while new technologies that enabled the transport of "dressed" beef (carcasses) were being developed, shipping live cattle - "on the hoof" - was still a common practice.

Indeed, interest in growing feed corn, due to its profitability as a cash crop and because it could be fed to ones' livestock, was also on the rise. Developments in breeding and new 'feeding regimes' (with higher energy grains, such as corn) promoted the possibility of raising animals in less time, making it more profitable (McLachlan, 2001). Corn had first gained popularity as a wheat replacement. The *Ontario Corn Growers Association* was formed in 1909, with corn silage quickly rising as the most desirable form in which to cut and store corn (Bowley, 1996). Importantly, though, corn required new management techniques that reinforced the transition of many Ontario farms into higher-input production systems: it required heavy doses of nitrogen fertilizer, and made weed control difficult (due to the tough, stalky residues it left in the field), eventually leading to heavy concurrent herbicide use (Bowley, 1996). Ontario farmers' collective turn to corn – which has remained one of the primary agricultural products in the province – also reinforced the turn towards livestock production, as it soon constituted a primary source of feed for cattle, promoting

fast growth and tender marbling, which came to be highly desired by consumers. Corn provided the basis for Ontario to become a leader in "cattle finishing", at least temporarily.

Altogether, this meant that integrated slaughter plants (which slaughtered, cut and 'further processed' animals) began to open, especially in cities. These plants, which incorporated cost-cutting measures often at the expense of humane animal handling and healthy working conditions for employees, were not new in North America, as Cincinnati and then Chicago had hosted such enterprises since the 1870s (McLachlan, 2001). Canada's new slaughterhouses were based on that model and focused on the slaughter of red meat animals (principally cattle and hogs), with poultry production following a different trajectory for industrialization which took place about 30 years later (Leonard, 2014). In 1903 the Union Stockyards (located in the Junction neighbourhood in Toronto) opened adjacent to the rail yard, shifting Toronto's "meat" hub to this more suburban location and kick-starting the rapid industrialization of meat processing in Canada (McLachlan, 2001).

Ontario's meat packing plants began to closely resemble Chicago's plants – adopting electricity in 1906, for instance, and powered conveyor belts and handling equipment beginning in 1910 – but certain features of the Ontario landscape meant that it this sector developed a bit differently. The size of Ontario's farmable regions, which could not all be well-connected to urban southern Ontario via railways alone, along with its relatively small population, encouraged small-scale slaughterhouses to continue to open through the same period (McLachlan, 2001). These realities – and this transition point at the turn of the century – had enduring relevance, as it was at this time that Ontario's meat processing industries separated into two scales. On the one hand, the Union Stockyards and other large meat packers expanded and grew more mechanized over the years that followed, developing into a handful of extremely powerful meat packing conglomerates oriented towards export markets. On the other hand, locally-oriented slaughterhouses and butcher shops continued to operate around the province and on-farm slaughter remained common for years to come (McLachlan, 2001).

This divergence, however, should not be mistaken as a clear-cut division into parallel and entirely separate supply chains, with some farmers incorporated into one supply chains and some into the other. A fundamental feature of this industry has long been the complex

relationships between farmers and the packing plants they work with. Farmers sometimes shift between types of slaughterhouses or continually use both types at the same time, for various reasons. Nonetheless, the locally-oriented slaughterhouses did tend to serve farmers operating mixed farms on smaller acreages who were selling locally, and tended to be spread out across the countryside.

The Origins of Federal Inspection

Food safety regulation in Canadian meat packing plants really began in 1907. As early as 1805 there had been rules related to the packing and curing of meat in Upper Canada, but this legislation was not widely enforced (Derbyshire, 2006). However, the 1907 *Meat and Canned Foods Act* was a thorough piece of legislation that covered the slaughter, cutting and further processing of meat preparation and set up the first inspection service in the country. Any plant engaged in international or intra-provincial trade needed to be licenced, though butchers cutting meat for the Ontario market alone did not have to be. The new legislation had a few notable impacts: it established the norm in terms of meat inspection methods that would continue to be used for the better part of the century, and it eventually began to negatively impact local abattoirs. By creating an inspection system aimed at export-oriented plants, it was difficult (and often not logical) for smaller plants to pursue inspection. However, this effectively granted legitimacy to the larger plants, on 'safety' grounds, which ended up undermining the reputations of smaller plants, as will be explained.

The move to establish these rules was motivated by a number of factors, ranging from negative public views on abattoir safety, to the needs of export-oriented businesses, to a growing number of local disputes related to slaughterhouses. Public perceptions of the safety of meat and the fairness of working conditions in meat packing plants had already been declining in the US, anticipating the turn that public perceptions would soon take in Canada. The 1905 publication of journalist Upton Sinclair's *The Jungle* contributed, as it detailed the horrific conditions in Chicago's meat packing district and became a dire warning of the dangers of allowing capital to police itself (Stull and Broadway, 2013). It also exposed how the "art" of butchery had been reduced to a calculated, alienating process, but it was mostly the threats to human health – arising from reports of human appendages being mixed into meat products and a lack of basic cleaning procedures – that really prompted outrage

(Bjerklie, 1995). Plus, the new connections scientists were making between bacteria and food in general also played into a sense of urgency among Americans to "impose scientific approaches and regulations onto the food preparation process" (Blay-Palmer, 2008, 22). *Trichinella spiralis* was discovered in pork in the 1850s and toward the end of the 19th century the cause of tuberculosis was also identified, both of which played a role in establishing the perception that meat inspection was needed (Derbyshire, 2006). Indeed, public fears about unsafe meat were well-founded; food borne illness *was* the leading cause of death in the US in 1906 (Bobrow-Strain, 2005).

In the US, public opinion looked unfavourably at the group of five companies that became known as the "beef trust" or "the big five" and held them responsible for these social ills. At their peak, in 1917, these companies controlled 55% of the market and, it was later determined, they fixed prices, "colluded to divide up the market" and shared information that ensured they were paying the lowest prices possible to cattle ranchers (Schlosser, 2001, 137). At the same time they were essentially setting the norms in terms of production processes (and the attendant risks they posed) in meat packing plants. Despite anti-trust legislation enacted in the 1890s, it took the US government years to make any progress in "breaking up" the beef trust (Schlosser, 137). However, at the same time as they were accused of maintaining unsafe and unsanitary conditions in meat packing plants, the corporate entities that made up the "Beef Trust" were in favour of broad food safety regulations. Perhaps not surprisingly, the Federal Meat Inspection Act was passed in 1906 (the year after Sinclair's book was published), which extended a less rigorous piece of legislation from 1891 and applied it to all livestock traded between states, as well as internationally (Bjerklie, 42). So, US legislation was motivated both by the interests of the powerful meat packing lobby and a desire to better protect American consumers from those meat packers – ironically, by way of the very same piece of legislation. The desire among US consumers to regulate and control meat packers was soon widely shared by Canadian consumers.

In Canada, as in the US, the push for regulation was propelled by the notion that trade could be better assured by providing trading partners with proof of safe food. Representatives from prominent meat packing companies were invited to Ottawa as the legislation was being drafted to provide recommendations (Derbyshire, 2006). Concerns pertaining to trade seem to have been well-founded. Britain had, since 1862, held a "schedule" for imported beef

(requiring costly quarantine upon arrival, making the export of beef less profitable) which Canada was exempt from – but this exemption could have been easily revoked if a single diseased animal were to have been found. Canada had strong interests in making sure they stayed off that list, and the assumption was that the new inspection system would ensure that was the case (Fowke, 1946). Plus, just a year following the passage of the new legislation Britain adopted a policy forbidding the importation of any non-inspected beef (Derbyshire, 2006). In short, federal inspection helped Canada to maintain a foothold in international meat markets.

In addition, the fact that the US had begun to regulate its slaughterhouses made Canada want to follow suit – both to appeal to US buyers and to be able to compete with US meat in foreign markets. Canada *did* already have systems for checking outbound meat ("port inspection") as of 1879 (Fowke, 1946), but regulating at the point of processing was seen a more effective tool. At the same time, some Ontario slaughterhouses had been causing problems at home, especially in cities like Toronto where waste disposal and land-use issues were problematic (Kheraj, 2013).

As we consider the origins of this mode of regulation, it is worth recognizing that developments in laboratory science had recently made it possible to understand the connections between diseases, foods and bacteria, at the same time as new, more mechanized processing methods and a wider scope of distribution was making this type of regulation necessary (Blay-Palmer, 2008). Furthermore, scientific developments also enabled the testing of foods for both safety and authenticity (Busch, 2009). Now that it was possible to test for undesirable bacteria or substances in food – and given that the risks of unsafe were getting bigger, as food was travelling further and in larger quantities – the regulation of this industry developed alongside its industrialization.

At this time, regulating food safety in meat revolved around daily inspections by veterinarians. All animals were visually inspected prior to and following slaughter, and those fit for consumption were given a stamp that read "Canada-approved." The condemnation of carcasses happened on the basis of evidence of a wide variety of diseases, from hog cholera to rabies, though infections with some diseases only merited a condemnation of a portion of a carcass. In addition, inspectors were responsible for supervising the processing activities "to

ensure cleanliness, guarding against the use of harmful ingredients, preventing the use of false and deceptive labeling, and inspecting imported meat", among other activities (Derbyshire, 2006, 547).

Overall, federal inspection was introduced because of trade-related needs and public discomfort with practices in abattoirs. As discussed above, while food safety did attract media attention, the most significant factor behind the creation of this legislation was the fact that processing companies engaged in international trade required the legitimacy provided by regulation. However, this was despite the fact that the food safety criticisms being made were targeting the *same large meat packers*, reflecting a trend that continues today wherein industrial production systems are not questioned (instead, are legitimated) by technical solutions to food safety issues (Stuart, 2008; Hassanein, 2011), which are often recommended as a result of new food safety regulatory systems (McMohan, 2007). At the same time, this new level of inspection paved the way for new, horizontally-integrated new slaughterhouses –providing them with the legitimacy that comes with a federal Inspection Service – and a new world of meat processing.

The Consolidation of Large-Scale Meat Packing: 1900 onwards

The production and processing of meat in industrial packinghouses was exploding and was seen as a sign of modernization. Yet the meat processing sector continued to be divided between locally-oriented and export-oriented slaughterhouses. The next few paragraphs will summarize the evolution of these export-oriented slaughterhouses from their inception in the early 1900s to their current form, which can be divided into two broad periods. First, there was a long period of consolidation and concentration of the first generation of large-scale slaughterhouses, which was followed by the eventual dissolution of these horizontally-integrated plants and the emergence of a new generation of vertically-integrated plants, which took over in the US in the 1960s and 1970s and then in Canada in the 1980s and 1990s (McLachlan, 2001).

Beginning in 1910 many new meat packing plants with federal inspection were built in Ontario. They were located near urban centres and next to rail lines, at least until farmers began shipping some animals by truck beginning in the 1920s (Derbyshire, 2006). New technology was developed in slaughterhouses to replace human labour with mechanization,

and markets expanded. Several elements formed the basis of the leading business model that emerged. First, plants tended to process many types of animals (mostly cattle, hogs and sheep at first, but by 1924 poultry could be inspected as well) and did every task from slaughter to final processing in the same building (Derbyshire, 2006). By trying to control all types of slaughter and processing these plants were *horizontally-integrated*. As well, they were always expanding, in part because their profitability depended on their ability to efficiently process large volumes, including animal byproducts (which only became feasible with high volumes.) "Can-Pak" technology, which replaced the previous "sliding bed" technology and enabled exponentially faster processing speeds by keeping the carcass on overhead rails, became common in the 1940s and it allowed huge efficiency gains – but only if throughput was at the level of 600-700 cattle per week. By increasing output these businesses were able to bring in huge revenues, despite the reality of very thin margins on each animal that has long characterized the meat industry (McLachlan, 2001).

A different kind of slaughterhouse - the Toronto Municipal Abattoir – was built around the same time (1914). Rather than integrate slaughter and processing, this was a slaughterhouse only and it was owned and operated by the municipality. The notion was that government management would be even better than government inspection in terms of the level of oversight (McLachlan, 2001). At the same time it was anticipated that the publically-run abattoir would help to address unfair corporate power in the industry, while providing farmers with a reliable place to sell their animals. Plus, the "public abattoir movement" in Europe was strong and inspiring (McLachlan, 2001). In large part, though, the government saw potential to increase exports by increasing packing plant capacity. But the abattoir wasn't very successful and in 1955 it was sold to a private company. An element of its demise was the fact that it was more vulnerable to reductions in the number of independent butcher shops, because they sold whole carcasses to these butchers (McLachlan, 2001). The government's foray into slaughterhouse management with the municipal abattoir was short-lived and, ultimately, a failure, reinforcing the notion that a much less involved role for government (as over-seer of safety) was appropriate. This opinion seems to have held true, as I heard little (if any) discussion of a more significant role for government in this sector throughout my research.

By the late 1920s, Canada's meat packing industry began to surpass the US industry in terms of concentration of power. At this time, a large number of cattle were being shipped live year round to Ontario abattoirs from Alberta, as railway infrastructure and a lack of processing capacity in the West made this the most economical option, and large Ontario slaughterhouses were booming (Agricultural Marketing Inquiry, 1959b). Similar to the "Big five" in the US, three companies came to form an oligopoly, controlling the majority of the Canadian industry, and they were Canada Packers, Burns & Co, and Swift Canada. A new trade deal with Britain helped propel them into this situation (the 1932 "Ottawa Agreements") by giving them a solid market for meat even during the Depression; during the same period, World War I and, subsequently, World War two created seemingly endless markets for meat (McLachlan, 2001).

Through the 1950s and 1960s, as more federally inspected plants opened across the country, the centre of meat processing began to shift, with smaller plants closing in the East and larger plants opening in the West. As production was becoming more centered in Alberta, and costs of transporting animals were going up, it began to make sense to process the animals near where they were being raised – which meant that meat began to come east in "dressed" (processed) form. Still, Ontario was a huge player in the industry nation-wide, with 57 of the 160 federally inspected plants in operation in Canada by the early 1960s located within the province and about 45,000 cattle a year still being shipped live from west to east for processing (as of 1958) (Agricultural Marketing Inquiry, 1959b). However, this was 'the beginning of the end' for the first generation of meat plants in Ontario (and across Canada).

This "new generation" was different in a few ways: they specialized in a single type of animal, and they had integrated *vertically*. This is when a single company buys up all the companies that are part of the production process for a particular commodity, which means controlling breeding through processing, and in some cases, also feed mills or transportation companies. "By reducing the number of times a component of the production system changes ownership, the profit charged at each level of change can be eliminated", thus saving the owner money, and with this single system of oversight uniformity can be more easily assured – and uniformity is at the basis of industrialized processing (Sams, 2001). The plants that adopted this model also began to push the envelope in terms of size and scale like never before.

Arguably, this type of enterprise was pioneered by a poultry company: Tyson. John Tyson started a small chicken business in Arkansas in the 1940s which quickly grew into an integrated chicken company that slaughtered and processed as well as operating feed mills, hatcheries and transportation companies (Leonard, 2014). By gradually buying up the companies selling the inputs needed to raise chicken, and then by devising a system whereby farmers were *loaned* chicks and hired to raise them, Tyson Foods founded a new mode of production (Leonard, 2014).

Elements of this system were soon adopted by slaughterhouses processing red meat as well – and in Canada. In fact, two of the largest US firms, Cargill and IBP, were the first to open this type of slaughterhouse in Canada, building in High River, Alberta in 1987. This plant provides a window into the increases in scale of operation that we have seen with this new generation of processing plants: in 1987, production was at 857 cattle per day; by 1999 it had increased to 3,850 per day, and today they process 4,500 cattle per day (McLachlan, 2001; Cargill.com). Ontario Federal plants held on – and continue to do so – in some cases, but many more have closed since the mid-1980s, including all hog and cattle slaughter at the Union Stockyards. Alberta is now firmly at the centre of Canada's meat packing industry.

The locally-oriented plants, which struggled on throughout these changes were affected unevenly by them, and in ways that were not immediately clear. Federal inspection and the increasingly low cost of meat influenced their capacity to be profitable, and was reinforced by concentration in retail businesses that was during the same time period (OECD, 2006). In the early 1950s some local abattoirs managed to maintain their customer base despite lacking the legitimacy provided by Federal Inspection, while others gradually began to suffer from declining reputations. Eventually, this prompted the establishment of a second level of inspection, towards which we turn now.

The Persistence of Locally Oriented Processing

Characterizing the changes that occurred among locally-oriented meat processors over the course of the 20th century is particularly challenging. This is the case in part because local slaughter plants were not the focus of government policy or of public attention, and so little effort was spent tracking the ways in which they changed, especially over the first half of the 20th century. However, we know that this period was one in which local abattoirs struggled to

retain a place in a changing agricultural landscape – but we can see that they *did* carve out a space within a sector dominated by large-scale packing plants.

As J.D. MacLean, the president of Canada Packers (one of Canada's largest meat packing companies for much of the past century), was forced to recognize in 1934, "half of the beef sold in Canada never sees the packing house, as it is killed in the farmers' yard or in the villages…" (Canada, 1934, 2536). These "village abattoirs", as well as travelling butchers (who performed slaughter services on farms) and farmers who were *themselves* competent butchers, continued to contribute hugely to rural Ontario agricultural economies through the first half of the 20th century – and in some cases, well beyond that. It is well known that "among the many skills possessed by 19th century farmers and ranchers was the ability to kill and dress almost any kind of carcass" – and these skills were still abundant through the early 1900s (McLachlan, 2001). During the second world war, for instance, "a large number of 'country killers,' local butchers and farmers killing for sale" were documented, including at least 4000 that were licensed by the Wartime Prices and Trade board (Agricultural Marketing Inquiry, 1959b).

The slaughterhouses that were not interested in pursuing federal inspection mostly stayed small; animals were slaughtered "and dressed individually with two or three men carrying out the entire process, so volume was limited" (McLachlan, 124). Some volumes were usually appropriate to the level of local demand for meat, since many of these abattoirs were located in less populated parts of the province. A few elements of these business models seem to have helped them to survive. For one, labourers tended to be flexible; in other words, the few people employed were usually skilled in all elements of the slaughter and cutting processes and could easily be moved from task to task as needed. Sometimes, for example, this meant doing a lot of slaughter (on a seasonal basis perhaps), and much more curing and smoking at other times. As well, many plants were designed to accommodate diverse tasks in the same spaces, so that capital costs could be kept low while still producing a variety of products. To that end also abattoirs sometimes incorporated a retail element to the business, as a way of diversifying income strategies and capturing more value. And finally – and perhaps regrettably – these businesses probably survived in part because they paid their employees low wages and often made use of family labour (McLachlan, 2001). Altogether, though, these characteristics compel us to re-consider conventional definitions of efficiency.

In some ways, flexibility seems to replace efficiencies inherent to scale by enabling abattoirs to use scare resources to their fullest extent and adapt to changes in supply and demand quite readily. Of course, this flexibility isn't limitless and decline seems to take hold when an unreachable degree of flexibility is required, or when the capital investments being demanded by authorities are so high that flexibility, adaptability and diversity can no longer compensate.

Until the early 1960s, these locally-oriented abattoirs were subject only to periodic inspection by municipal health authorities, who inspected a wide variety of food-related businesses (as they still do today). However, the fact that they were selling 'uninspected meat' began to emerge as an issue in the mid-1950s.

The Birth of Provincial Inspection

By the late 1950's non-federally-inspected slaughterhouses were suffering from a declining reputation in some parts of the province. There were several minor food safety scares in the late 1950's, including accusations of hog mistreatment in some small slaughterhouses, as well as a public inquiry into mistreatment of animals at the Toronto Municipal Abattoir, both of which attracted some negative media attention. In response, the government commissioned a joint study of the Ontario Society for the Prevention of Cruelty to Animals (ONSPCA) and the Meat Packers' Council Committee (MPCC) to look into the allegations in 1957 (McLachlan, 2001). They made several recommendations which led to a the *Humane Slaughter of Feed Animals Act*, but the fact that non-federal slaughterhouses were not subject to a comprehensive set of standards was nonetheless seen as a problem. During the same period there were several episodes wherein slaughterhouse operators were accused of adulterating and misrepresenting the meat they were selling, contributing to the appeal of a new level of inspection (McLachlan, 2001).

And so in 1962 the Ontario legislature passed a new act which created a second level of meat inspection. It was called "An Act to provide for Inspection of Meat for Human Consumption" or "The Meat Inspection Act, 1962/63". As mentioned, section 92 of the Canadian Constitution grants provinces jurisdiction over "local works and undertakings (s. 92(10)), property and civil rights (s. 92(13)) and matters of a local and private nature (s. 92(16))" (Haines, 2004, 68). Thus, Ontario chose to exercise these regulatory powers for the

first time in the early 1960s, licensing and inspecting smaller, non-federal plants – the ones only doing business locally – for the first time. Indeed, it was the first example of provincial meat inspection regulation in Canada, and became mandatory in every Ontario county by 1969. Nevertheless, it still included important exemptions, such as that which allowed on-farm slaughter and sale, as well as the sale of undressed poultry, to continue legally without inspection by the Ministry of Agriculture (Haines, 2004).

It is important to ask whose interests were served by this new legislation and inspection regime. On one hand, large packers were probably pleased to see the new legislation because, to some extent, it had the effect of shrinking the pool of competitors. As McLachlan explains, "when a minority of small-scale packers and butchers were caught misrepresenting and adulterating meats, the large-scale packers were no doubt delighted to see the advent of provincial meat inspection. Many of their small-scale competitors were obliged to comply or exit the industry…" (2001, 184). However, on the other hand some abattoirs had been held back by the absence of an inspection regime, as their customers were worried about food safety and wanted the assurance that an inspection system provides. This is a debate that continues today, as some argue in favour of continued regulatory change at the provincial level in order to further legitimate products from provincially-licensed plants which, ideally, will inspire new buyers to open up to these products (Interviews: Judy, Rita, Spencer). Furthermore, it is easily argued that consumers' interests were furthered through the new legislation. While it was not established that most local abattoirs were using any unsafe practices, there did seem to be some carless work being done in the sector.

Second, the decision to create a second level of inspection implied that it is possible to ensure that the public is consuming safe meat *without* forcing every slaughterhouse to comply with federal regulations. This approach made it possible to achieve two parallel goals: protect public health, while also ensuring that local processing plants can remain financially viable. These duel goals reflect the belief that smaller plants *should* be regulated, but that a unique approach is needed. If all plants were subject to the same regulations, it is assumed, the smaller plants would be over-burdened with rules too expensive for them to implement; after all, that was presumably why they hadn't already taken on federal inspection during the first fifty years it was in place.

As well, conflicting attitudes about whose interests are promoted by provincial food safety regulations emerged early on and have endured through the present day. This conflict seems to originate with the fact that throughout the process of negotiating the details of the act (and subsequent amendments) two provincial departments were implicated: the Department of Agriculture (including the Veterinary Services Branch) and the Department of Health. Since they had both been granted official responsibilities in terms of the surveillance of slaughterhouses, the division of these responsibilities has long been debated. The departmental mandates were (and are) quite different, with the Department of Agriculture responsible for both regulating *and promoting* the success of agricultural industries (depending on the branch), while the Department of Health is focused solely on protecting public health. The notion that the Department of Agriculture allows its economic development mandate to over-ride its concurrent mandate to protect public safety has been a source of debate for years. For example, as the roles of veterinarians and 'lay inspectors' were being negotiated in 1965, the Ontario Veterinary Association argued that regulations had to be based on "established principles of Veterinary Public Health", identifiable only by the Health department of a new independent veterinary service which would be *separate from the economic interests of the agricultural ministry* (McDermid, K.A. (1951-2003), McDermid to Biggs, Jan. 7, 1965). Indeed, these negotiations continue, as a memorandum of understanding between OMAFRA and the Ministry of Health and Long-Term Care (MOHLTC) was just signed in May of 2014, with the goal of improving "inspection efficiency and effectiveness at licensed meat plants" by clarifying responsibilities and "streamlining inspection in meat plants that include a retail or food service component" (OMAF, 2014a).

Finally, it is worthwhile to make note of some of the ways in which the provincial inspection system changed over the next 30 years. As mentioned, both on-farm slaughter and the sale of undressed poultry were both official exemptions in 1962 when the Meat Inspection Act was passed; this remained in place until 1982. Throughout the 1970s the new inspection service dealt with food scares (like Trichinosis), navigated debates around proposed changes (including a suggestion in 1975 to forbid transporting uninspected carcasses which was rejected, as it was thought it would infringe excessively on small butcher shops), among other challenges (Veterinary Services Branch, 1975/76). It was not until 1992, however, that

significant changes to the Act were made. At this time Ontario Regulation 632/92 was implemented which made inspection mandatory for all meat sold in Ontario (effectively outlawing on-farm slaughter). This change had far-reaching impacts on the sector, and many of the operators I interviewed pointed to the early 1990s as a time of major transition (Interviews: Louis, Larry, Jim). Minor amendments were made through the 1990s, leading up to the eventual passing of an entirely new piece of legislation in 2001, the *Food Safety and Quality Act*, and then the associated regulation – *Meat Regulation 31/05* – in 2005. These changes will be discussed in the chapter 6.

Conclusions

The intention of this chapter has been to provide a broad context for the study at hand, which is the current trajectory of rapid decline that has been noted in Ontario's local meat processing sector. The story of Ontario's rise to prominence as an agricultural region – early on, as a producer of wheat and then later, as the source of a wide range of agricultural products, prominently including meat and dairy products – has led to the type of meat processing sector we see today. This sector is one in which there was a significant network of local abattoirs that began to be regulated quite early on, especially relative to the rest of Canada. In British Columbia, the regulation of local abattoirs only began in 2004 first with the CFIA stepping in temporarily to fill a perceived gap and then transferring these responsibilities to the province (see Miewald et al, 2013). Other provinces, such as Saskatchewan, still do not mandate that every abattoir have provincial or federal inspection; instead, a slaughter plant can operate under inspection by municipal health authorities, who inspect the premises but not each animal (Provincial Auditor Saskatchewan, 2012). Comparatively, Ontario abattoirs are inspected quite strictly – and have been inspected for over 50 years.

Thus, there are several important points to take away from this chapter. First, Ontario became a prominent powerhouse in terms of conventional livestock agriculture and meat processing while at the same time fostering a base of mixed farms and local slaughterhouses. From the early days of settler farming through to increased specialization and a collective turn towards meat, dairy, corn and soy, Ontario farmers have been recurrently drawn in by attractive market opportunities or compelled into different pursuits by the limits of the land, or by an

abundance or lack of export markets or technologies. At the same time, the fact that Ontario was settled relatively early, and happened to have a growing urban population, a large number of farms of different sizes looking for new opportunities, and good connections to global markets meant that Ontario entrepreneurs followed quite soon in the footsteps in big meat packers in Cincinnati and Chicago. They adopted industrialized meat processing methods and built numerous large packing and slaughterhouses across Ontario.

These federal processors had the time and resources necessary to develop strong networks, representative organizations and lobbying capacities – and tend to attract the attention of government based on the sheer scope of their operations. Indeed, over 85% of meat processing in Ontario occurs in federally-inspected plants, and Ontario's meat industry was valued at $8 billion in 2010 (OMAF, 2013). For example, the Canadian Meat Council (which is 93 years old) is a trade association that represents Canada's federally-inspected meat packers (including those located in Ontario) and they represent the largest agricultural export sector in Canada (CMC Website). Ontario is also home to several organizations representing producers mainly focused on export markets, including the Ontario Cattle Feeders' Association, the Beef Farmers' of Ontario, Ontario Pork, and the Chicken Farmers' of Ontario. Essentially, given its past (and to a lesser but still significant degree, its present) as a major meat exporting province, there are many long-standing and powerful interests interested in supporting and propelling meat exports in the province. In contrast, as some scholars have argued, there is a tendency for smaller farmers and processing businesses to be comparatively poorly represented during industry deliberations (DeLind, 1995).

However, a secondary mode of processing still remained, serving a second set of (not always distinct) livestock producers. While many of these producers embraced some aspects of 'modern' agriculture as it was emerging, like feeding more grain or keeping larger numbers of animals in confinement, many others raised them on pasture, as had long been done – and all of them sold locally. Thus, Ontario developed an extensive network of small slaughterhouses, some of which are still in operation today, at the same time as it developed a powerful conventional meat industry, including both producers and processors.

Secondly, both the federal and provincial meat inspection systems were originally created with far more than just the need to assure safe food in mind; at the same time, the need to

address public fears of unsafe meat and the need to satisfy the export-oriented meat-packing industry came into play. The major motivation behind federal legislation were the interests of export-oriented meat plants engaged in international trade, who required the legitimacy that is typically provided by regulation. The rules they were pushing for, not surprisingly, did not fundamentally question the appropriateness of their production methods; their equipment, speed of production and other fundamental elements of their processing methods were not substantively altered (reinforcing the assertions of Stuart and Worosz, 2011). Instead, the underlying belief is that industrial processing methods do not fundamentally threaten human safety; it is only when people do things improperly, or deviate from good procedures, that safety becomes an issue. As will be discussed further, this belief continues to underlie regulatory decisions today. Ultimately, political factors played into the creation of these inspection systems, which becomes relevant to present-day debates over the motivations behind regulatory regimes later in this thesis.

These histories trajectories tell us a lot about how Ontario came to have a provincially-regulated meat sector, and point to some of the changes that the sector has undergone over the years. Now discussion will turn to what is being experienced in the sector today. Chapter five takes on the current challenge: abattoirs that are quickly closing, and thus further threatening viability of local meat production.

Chapter 5: Explaining Abattoir Closures

"Abattoirs around Ontario are struggling." As I began this project I heard this assertion many times – from farmers, abattoir owners, and from city folks who had been hearing rumours. Many of these operations have probably been balancing on the line between success and failure for many years and so operators of locally-oriented slaughterhouses might scoff to hear it suggested that their struggles are in any way "new." Indeed, from the previous section we can see that many of the factors working against small abattoirs' success have been in place for years.

But sometime different is happening today. By the numbers the decline is clear: in 1998 there were 267 abattoirs in operation; now, in 2014, there are *at most* 129. That is a loss of 138 abattoirs offering custom slaughter services in just over 15 years, or a reduction of just over 50% (Haines, 2004). In considering the reasons for the decline, some suggest that perhaps the reactions of operators to unfavourable circumstances are simply delayed; it is only now that a generation of operators have reached retirement age and that is the simple reason for which we are seeing so many closures now. Or, as has also been suggested, maybe there were simply "too many" abattoirs in some regions relative to the number of farmers. However, while timing, demographics and a declining number of farmers are certainly playing into this process, this research aims to take a more in-depth look at what else might be happening.

Over the next chapter I will begin to shed light on the central question guiding this research: what barriers have been preventing Ontario abattoirs from retaining the ability to survive in this industry? This chapter considers the major factors influencing closures that the in-depth interview process revealed, including four major factors cited by the majority of stakeholders with little disagreement noted, and then two factors cited by many stakeholders which were not viewed in the same way by all. As mentioned, the stakeholders with whom I spoke included a majority of abattoir operators (current as well as former) in addition to farmers and lobby group representatives.

The way in which food safety is governed, through provincial level food safety-oriented regulation (in the form of the *Food Safety and Quality Act* and *Ontario Regulation 31/05*

beneath it), was by far the most cited challenge (by operators and other stakeholders alike), and the most contested perceived barrier discussed by stakeholders. Indeed, some interviewees did not see regulation as a problem, while others saw it as a huge issue. This will be discussed in chapter 6 and 7 because it constitutes such a significantly reported – and debated - issue.

A Low Margin Business

Time and again during the interview process a core refrain was repeated: meat packing/processing is inherently a very low margin business for both large and small operations. Various factors make meat a tricky material substance: it is highly perishable, it varies hugely in terms of quality, and because it can quite easily become infected with harmful bacteria it requires careful treatment compared to many other commodities - and even compared to most other foods. But it's an even smaller-margin business for plants operating at a small scale, in general. Larger meat packing plants tend to have found ways to reap significant profits despite these challenges and small per-unit margins, which they do in large part by continually expanding the scale at which they operate. For example, meat plant profitability tends to depend on the usage of meat byproducts to produce non-food items (as discussed previously). Indeed, the fact that today these byproducts still constitute 14% of the beef and 19% of the pork exported from the US today (Marti et al, 2011) is a testament to the difficulty of turning a profit from meat sales alone. The fact that small slaughter plants are largely excluded from these markets due to their small scales of production is just one of the ways in which smaller plants cannot utilize the same strategies that allow larger plants to be successful.

The issue, as it emerged through the interview process, was that margins are low at the same time as costs are rising, and adjusting the business to adapt to higher costs does not seem feasible. (As will be discussed later on, it seems as though this belief is sometimes justified while, at other times, it indicates an unwillingness to raise prices on the part of the operator that 'is a barrier to success.') In many cases, operators focused on the rising costs of doing business; take Larry's report, for example:

> "It's just too much work and too much money to try to make a living. You have to be so experienced...to try to make it. You have to work in it [the abattoir'] as well as

> own it. The costs are only gonna get greater, between the ministry [regulatory demands] and hydro and taxes....”
> - Larry, Central Ontario Operator

Another operator brought it back to the numbers, and explained how the existence of other, more lucrative employment opportunities are often far more tempting that the ‘meat business.’

> “…There's just not the money in it, that's the big thing, eh? […] it's the high cost of operating. If you could run a slaughterhouse and make $20,000 a year or you could open up a repair shop and make $40,000, which one are you gonna do? That’s simple. It's not rocket science; you take the one with the most money and least work. ”
>
> - George, Eastern Ontario Operator

Interviewees also mentioned the low margins in expressing discontentment with changing regulations (which, as a separate topic, is at the core of the next chapter.) As one operator explained,

> “…There’s just not enough money [to make infrastructure changes]. You go to your accountant and your accountant will look at you like you've got two heads and say ‘did you not read your bookwork? You can't afford this! There's not enough money in this business to justify this’.... don’t have the margins..."
>
> - Jim, Eastern Ontario Operator

Other operators brought up what I consider to be a very important point. He explained that it wasn’t the low margins alone; it was the low margins *in combination* with other factors, which he characterizes as the “hassles” associated with operating. In describing why he eventually closed, Hiram said,

> “And part of it was just the ongoing hassles... Every year there's a big hassle over the kill floor. Geez, I mean I never made any money! We lived under the poverty line! I'm not complaining, I loved the lifestyle, but I never made any money at it. So why would I keep on killin' myself doing that?”
> - Hiram, former poultry abattoir operator

Hiram’s views on why operating an abattoir (and farming) was worthwhile had, importantly, a lot to do with the lifestyle. And, while a low income way wasn’t at first enough to cause him to get out of the business, a low income in combination with a feeling of “being hassled” *did* make him want to get out of the business. These choices speak to the fact that for many, farming is more than a job; it reflects a particular approach to rural life and a belief in

farming as a livelihood more than just a source of income (Machum, 2005). Decisions about how to farm are often conscious and deliberate and tend to reflect all types of priorities – not only the economic. However, even a person very committed to farming or butchering for various reasons does not necessarily hold onto this desire, especially when low margins are combined with other discouraging factors.

Altogether, it is difficult to deny that meat processing – and especially small-scale operations focused on custom slaughter – are working within a very low margin business. But a variety of other factors make the low-margin reality less tenable for operators.

A Changing Agricultural Landscape

As the food system has become more globalized, borders more porous and labour more fluid (and readily exploited), Ontario's place within this agro-food system has shifted - and livestock farms in this province have shifted along with it. The supply management system has, to be sure, enabled the continued survival of many this province's dairy, egg and poultry farmers, but the export-oriented producers of beef, pork, and other meat products have been increasingly subjected to the perils of the global meat market. The increasing scale of livestock farming, alongside the concentration of ownership throughout the supply chain, has brought about big changes on livestock-specific and mixed farms as it has slowly progressed over the past 60 years.

The resulting changes in the type and number of livestock farms that require the services of local abattoirs have repercussions for abattoirs, both in terms of the demand for their services from farmers (custom slaughter) and the demand for their final products (locally-marketed meats). Plus, when farmers are downsizing or selling off their land, abattoirs are also held back, as will be discussed. But at the same time, as the agricultural landscape changes abattoirs face growing competition from industrially-oriented supply chains, both in terms of farmers choosing to sell to export-oriented meat plants and in terms of industrial meat out-competing the locally-raised products that have gone through a local Ontario abattoir.

Reduced Demand for Custom Slaughter Service

Many interviewees noted a decreasing demand for their services, and this trend is easily traced to various changes taking place among livestock farmers: fewer farms overall, fewer

farms requiring custom slaughter services, and a decline in other types of agricultural infrastructure or services.

Fewer Farms

There is no doubt that fewer farms persist in Ontario this year than in every year previous. Statistics show that in 2006 there were 57,211 farms in Ontario, operated by just 1.5% of the population (Statistics Canada, 2006), and this shift has been ongoing for more than a century. In 1931 there were 192,174 farms in the province, owned and operated by 23.3% of the population. And yet, the trend continues; between 2001 and 2006, the farming population in Ontario decreased by 4.2% (Statistics Canada, 2006). Of course, the history and geography of each type of livestock is unique, as a host of political, economic and social factors have caused both major surges and declines in the rate at which they are produced within the province. But on the whole, the quantity of livestock being raised on Ontario farms – poultry excluded – has decreased between 2001 and 2011, with the number of cattle and hogs decreasing by 400,000 and 368,000 respectively (OMAF, 2011a).

Casting further doubt on the prospects of the remaining farms is the fact that farm incomes are also rapidly declining, as well as the fact that almost half (49%) of Ontario farmers are supplementing their incomes by holding off-farm employment (NFU, 2011). Farms are closing every year in Ontario, which isn't surprising when you consider fact that even though gross farm revenues have been increasing consistently over time, realized net farm is lower than ever before (NFU, 2011). Unfortunately, though, it is very hard to tell how many of the farms which have closed over the past 15 years were, in fact, using provincial abattoirs, as there are not any statistics indicating how many Ontario farms use local abattoirs in general. But it is safe to assume that some of them were.

Of course, a huge number of factors are causing farm closures, and the question of why particular types of farms are closing is as complicated as the abattoir-closure question this project is addressing and is not within the scope of this project.

Changing Farms

As well as farm closures, changes in the focus of a farm – over to new crops, new production methods or new markets – can also eliminate their need for the services of a local abattoir,

and therefore impact abattoirs' prospects' for survival. Farms focused on livestock production for meat sales, as well as those for which the services of a local abattoir are sometimes required, provide income that is indispensable to local abattoirs.

Livestock-focused farms in this province could be further divided into two types: first, there are those where a single type of animal is raised and sold to large packing plants, either at auction or by way of individual contracts and second, there are those where one or many types of livestock are raised and which have oriented their production exclusively towards local markets. Importantly, both types usually make use of local abattoirs, but the second type depends on them to a far greater extent. These locally-oriented businesses use services of a local abattoir multiple times a year and would be unable to run their businesses in the same way without ready access to one. In contrast, the specialized, larger-scale livestock farms are still likely to make use of a local abattoir in a peripheral way, either because they go there to have their "off-size" animals processed, or because they occasionally sell directly to a local abattoir business at an auction, as some abattoirs are also retail butcher shops and/or conduct wholesale meat sales to customers. (In other words, abattoirs sometimes offer both services – custom slaughter – as well as directly selling meat products.) Therefore, it hurts local abattoirs both when larger, more specialized livestock farms close *as well as* when locally-oriented farms either start selling into conventional markets *or* close.

Farms that are locally-oriented may choose to move back to conventional sales methods for various reasons, including simplicity (the farmer does not have to be involved in selling the meat) and consistency (while prices are not always high, sales can always be made.) As well, farmers' decisions to shift back to conventional markets are sometimes also caused by a lack of abattoirs, making it clear how farm and abattoir closures tend to be mutually reinforcing. Regardless, though, when farms shift their operations away from supplying local needs results in means a more difficult environment for the remaining abattoirs, not to mention less locally and/or sustainably raised meat on the market.

One interviewee – a farmer who raises lamb as well as vegetables – expressed how this impacts her decision-making:

> If (my local abattoir) goes out of business I'm going to quit selling lamb. I'm going to keep raising sheep, but I'm going to ship the lamb to Waterloo to the sales barn. I'm not going to be bothered any more to try and deal with the direct marketing. That's

> one thing...when you lose the abattoirs close enough to your farm then you just get out of that piece of farming. You deal with your livestock some other way. So in a way, the loss of small abattoirs can contribute to the loss of smaller, mixed farmers - the ones that still use small abattoirs.

At the same time, farms that don't exclusively produce livestock also sometimes make use of local abattoirs. A clear example of this is the dairy farm. While a dairy farm obviously does not produce cattle primarily for meat, a dairy farmer still has a fundamental need for slaughter services – and many dairy farms have traditionally met at least some of these needs by using the services of local abattoirs. Dairy farms typically slaughter both young male steers (since they can't produce milk, of course) as well as older female cows that have been producing milk for a number of years but have become unproductive. Dairy farms are getting larger and fewer in number, which some would argue is facilitated by the supply management system. At the same time, the amount of milk being produced in the province has not decreased but the number of cows needed to produce this amount of milk *has* gone down (by 6.2% over 5 year, with the most recent statistics being for 2006) due to genetic changes that make cows more and more productive (Statistics Canada, 2006). So, with fewer dairy farms scattered around rural Ontario, fewer abattoirs are benefitting from the business that they used to bring.

Many of the abattoir operators I interviewed mentioned the effects of these trends on the demand for their services. As one Eastern Ontario Operator said,

> It's changed some ... in some cases the beef part of it has got a bit poorer because a lot of farmers have stopped milking and sold their quotas and now they're cash cropping. So we have to depend on the beef farmers - any that's left - and with scare there a few years ago, a lot of beef farmers went out ... there are a few coming back, but not too many.
>
> - Jerry, Eastern Ontario Operator

When asked about his typical customer over the past 40 years of operation, Peter first brought dairy farmers, saying

> If it was a dairy producer maybe they'd keep a calf or two, raise them up for their family, or maybe raise a few more, maybe 8 or 10 in a year, and market them to friends…

He went on to lament the gradual closures of farms around him and the resulting expansion of his "service area", as other abattoirs closed and farmers drove further to access his services.

Overall, farmers constantly re-evaluate their options and alter the mix of activities and sales methods they are engaged in; this, in a sense, is an essential survival strategy. Indeed, as is made obvious by the statistics on farm decline, these kinds of strategies are essential given the precarious financial positions of most farms. However, this inconsistency *does* negatively impact abattoir viability, as operators themselves pointed to regularly during interviews.

Declining Rural Infrastructure

Also contributing to the challenges that farmers – and, by extension, abattoirs – face is a parallel and related decline in other types of rural infrastructure. One particular type that has been declining and negatively impacting the rest of the supply chain is the local livestock sales barn. These buildings used to dot the highways of rural Ontario - and even where physical auction barns did not exist, livestock auctions used to take place on a regular basis at local fairgrounds and other meeting places. Auctions typically happened once or twice a week, and the barns included holding pens as well as an auction area. Often, auctions included other perks, like community dinners or even flea markets. Many were built following World War II and by 1960 about 60% of cattle sales in the province were made at these auction barns (which doesn't include sales made through the public auction yard in Toronto, which served most of the GTA) (Agricultural Marketing Inquiry, 1959b). They played – and in some cases still play – a critical role, which is to allow farmers to buy (and sell) their animals close to home. Once long distance hauling becomes part of the equation, raising livestock ceases to be feasible for a certain group of individuals – and operating becomes more costly for everyone. Plus, if a trade in livestock animals happens within a community, abattoirs can easily source animals themselves (if they have wholesale accounts or do retail sales). Some, but not many, remain part of Ontario's rural economy; there are fewer than 14 in operation across the entire province, as opposed to the more than 65 that were in operation in 1960 (ON Sheep Marketing Board, 2014).

Their absence impacts abattoirs in part because it has become more difficult for farmers who don't raise their own calves to easily purchase them in the spring, feed them through the

summer and/or following winter and then sell them to another buyer, as one interviewee explained.

> There were farmers who would grow a few animals and sell a few - 5 or 6 or whatever - and augment their income, get a little bit of cash. And they could buy a couple of cattle - they didn't need a herd of cows and a bull and everything ... they'd buy a couple of steers. Or buy a steer and feed it and eat half of it themselves and sell the other half to pay for the feed, to a neighbour or friend or a relative...
>
> - Albert, Northern Ontario Operator

Albert went on to explain that this type of cattle raising is no longer feasible for many of his neighbours. Importantly, as well, is the tendency for less wealthy and/or very small farmers to be disabled to a greater extent a sales barn closure, as they would be less likely to own or be able to afford the extra cost of travelling a long distance. Indeed, such an expense would make much less sense if a person was only going to be purchasing a single steer.

Competition with Conventional Production Systems

Without a doubt, the evolution of a vertically-integrated and highly consolidated export-oriented meat sector has structured the conditions within which provincial abattoirs must operate. Most meat that Canadians eat has come from such a slaughterhouse – and it isn't surprising why. The production of livestock, along with their slaughter and processing, has become an extremely low-cost - and still, highly profitable – business. Over the past 100 years, the costs associated with fattening animals and transforming them into meat have been pushed lower and lower, while units produced and processed by each business have grown (although the price received by the farmer has not always kept up) (Boyd, 2001). Applying a "Fordist" production model to the production of livestock involves practices such as increasing stocking densities "as well as a speeding up of animal metabolisms through breeding practices that shorten life spans before animals achieve market weight" (Emel and Wolch 1998).

We are seeing these changes, of course, across the agricultural system. Capitalism has overtaken agriculture, and a wide range of animals – and other organisms - are "taken over as vehicles for capital accumulation" (Boyd, 2001; Kloppenburg, 1988), and this mode of agriculture has made it possible to produce tremendous quantities of food products very cheaply. The costs of these efficiencies are many, however, and in when it comes to the

production of livestock, are underpinned by an especially "precarious biophysical foundation" based on the grain-oilseed-livestock complex (Weis, 2010; also see Freidmann, 1993, 2005). This complex sees surplus corn and soy (mostly) cycled through livestock animals, kept in confinement and bred to gain weight as quickly as possible; the resulting meat is produced very cheaply, if one does not consider the huge ecological and social costs. But despite its precarious foundation, those who reap huge benefits from these meat and livestock production systems continue to find ways to "neutralize" their contradictions, as Stuart and Worosz describe (2011), and major meat packing companies continue to profit hugely. As such, vertically-integrated meat packing companies have gradually taken over the industry across North America, buying up as many businesses along the supply chain as possible in order to extend their control (and capacity to ensure efficiency and profitability) from one end of the supply chain to the other (OECD, 2006.)

The "cheap meat system" allows packing companies and retail outlets to sell meat to the public at relatively low prices, while still ensuring that corporate profits are high. The meat that results is heavily advertised and marketed to consumers – whether as a special new product, a "healthy choice" or a classic comfort food. As large companies move into try to capture some of the "niche" buyers, with products like the President's Choice 'Free-From' line which markets pork and chicken products from anti-biotic free animals, the space for provincially-raised meats to attract attention (and customers) grows ever smaller. Altogether, meats raised for local markets are hard pressed to compete with this meat emerging from this system.

Neither farmers selling directly to consumers, nor abattoirs with retail butcher shops, are generally able to attract as many customers as supermarkets, in part because they cannot compete on price. In particular, butcher shops located in abattoirs often struggle because they are selling from deli counters that resemble those at grocery stores and are often competing for customers in rural areas where incomes are relatively low. Interviewees brought up these points often.

As one operator made clear, it is a constant struggle to sell meat within the required timeframe, at the price they need to get:

> Any of these plants...say they've got nice steak in the display case which they're hoping they can sell by Saturday. It is a perishable commodity, with a shelf life of about 2 weeks. They're thinking they're really doing great, as they've been able to get the cost down to $7 a pound...but then some food conglomerate puts a flyer out: $5 a pound. It just drives the consumers away. They're at such a huge disadvantage…
>
> - Bruce, former inspector & livestock farmer

Another operator explained that they find people do prioritize their product (which is for sale in a rurally-located butcher shop) but only to a certain point;

> People will drive a little extra distance for it (our local meat)... but they still won't pay a premium for it. So we have to compete with the big box stores. They're not gonna come in here and pay $10 a pound if they can get it for $7 a pound at Costco.
> - Jim, Abattoir Operator

Of course, some "lucky" farmers are able to sell directly to consumers at higher prices, through independent food stores, or to higher-income customers or those committed to the values they associate with local meat. In such cases, it becomes easier to make sales with prices that accurately reflect the costs of production. In other cases, farmers may still be able to make some money filling freezer orders in the traditional way, meaning that their customers are already unique in their buying practices and can be drawn in secondarily by the lower prices offered with 'bulk buying'. (This includes meat CSAs or buying clubs, as well as personal relationships between friends and neighbours that often for the basis of bulk meat sales in more rural areas.) But in many other cases both of these options are quite limited.

Limited Sales Opportunities

Abattoirs are also limited by changes that have taken place at the opposite end of the supply chain: at the point of sale. While some abattoirs also have a butcher counter / retail element to the business, many simply provide custom slaughter services and/or sell animals to a limited customer base without having an actual retail shop. So, when people living near abattoirs started buying meat in different ways - or when local stores were no longer willing to purchase meat from them - this facet of their business (which may have been all that was keeping them afloat to begin with) was seriously undermined.

Changing Consumption habits

Adding to the decline is the fact that the market for local meat straight from the abattoir or local farmer has declined significantly. Nevertheless, it is important to note the recent and growing trend towards interest in 'local' which is bucking this trend and which many operators say has been benefitting them. In the past, however, what is referred to as the "freezer trade" made up the bulk of abattoir operators' business, especially in more isolated rural areas (Interviews Hiram, Albert). But, as industrial production and processing systems have transformed the industry over the past century, consumers have increasingly been buying meat "by the cut" at the supermarket. As one operator described it,

> Your parents probably at one time would buy a side of beef and stick it in the freezer. Well, not too many people do that anymore. It's just too easy to go to the big box stores ...and the big box stores have definitely had a huge impact…
> –Jim, Northern Ontario Abattoir Operator

These consumption changes have affected abattoirs both directly and indirectly. First, many of the abattoirs used to sell some animals directly to customers who came to their abattoir. Even without a retail shop, these operators had an active business selling cattle direct to families in their areas as part of the "freezer trade". Second, many of the farmers who used to use the services of provincial abattoirs would raise a few animals each year, provide enough meat for their family and have a little extra to sell to their neighbours. They would sell the meat the form of a "side of beef" (half a cow), a number of frozen chickens or perhaps a hog or two.

This transition happened slowly. It began in the 50s, but many rural families still bought their meat directly from a farmer or butcher well into the 80s and early 90s, despite the proliferation of supermarkets meat. Indeed, in 1959 a report from the Meat Packers of Canada (a lobby group) reported on the state of the industry, saying "With the growing number of self-service retail counters, there is a definite trend toward the preparation of consumer-sized packages in the plant….and to entice customers, meat has had to be offered in more attractive and convenient forms" (Agricultural Marketing Inquiry, 1959b, 18). Closely connected to the trend to buy meat "by the cut" was the loss of meat cooking know-how, as the less common "cuts" that are part of every animal started to be unfamiliar to many home cooks – in part because they were no longer "forced" to cook them, and in part because

of the aggressive promotion of certain, easy-to-cook parts of animals. As another operator explained,

> ….there's fewer farmers, and most of them (used to) sell 8-10 beef per year - their neighbours would buy a side of beef, they'd give a side of beef to their kids - but nobody does that anymore. They don't do a lot of cooking at home, don't want a freezer full of roasts and hamburger, they want more variety.... So farms aren't selling as much, and that affects our business.
> -Jim, Operator

As Jim makes clear, peoples' desires for specific cuts of meat, purchased weekly at a grocery store, have had a big impact on abattoirs which for many years augmented their incomes selling "sides" of animals to their neighbours.

Limited Access to Retail Outlets and Institutional Buyers

Another factor has been the difficulty faced by many plant operators to make retail sales to larger buyers, hugely limiting the markets available to them. Of course, meat with the provincial stamp of approval can't be transported across a provincial border. However, a lesser known fact is that it also cannot be sold in most grocery stores, though this is rooted in policy decisions rather than rules. The type of meat allowed in a grocery store chain is a decision made by the management team at each company, and today in Canada most large grocery store chains only purchase federally-inspected meat (Carter-Whitney, 2008). This limits the ability of provincially-inspected livestock farmers and abattoirs to sell in the type of retail venue where most Ontarians buy their meat – that is, at the supermarket.

There are exceptions to this rule. In conversation with the Ontario Independent Meat Processors (OIMP) I was informed that some provincial processors have recently negotiated access to a few new major retail store and institutional buyers, such as hospitals and retirement homes.

> There are a number of members that are supplying Sobeys, Shoppers Drug Mart, the Bayer's chains... there are new markets.
>
> -Representatives, OIMP

However, this type of sales is still quite limited. As OIMP representatives explained, "back in the early 2000s … with retail consolidation many of our processors lost the ability to supply their local IGAs or market garden or Sobeys stores." In their opinion, food safety rules may

not have *caused* this shut out, but food safety rules are needed to reverse it. These chain stores need to be (and have been, in some cases) convinced that provincial meat is equally as safe as federally inspected meat. The role of food safety regulation in impacting institutional buyers' decision-making will be discussed further in chapter 7.

But not everyone I spoke with felt the same way about a "changing tide" in mainstream retail markets. For many operators these markets are still firmly out of reach. Said one operator who sells mostly at his own on-farm retail shop,

> The food chains are all set up - and [conventional packers] already have buying contracts with federal facilities - but we have no access to that. (Therefore) we have no access to the in-place, local distribution food chain. For example, I cannot sell a smoked sausage into our Valuemart in my town. They cannot carry it because Loblaws will not allow them to carry it. They'd kick that owner in the butt if that happened.
>
> -Albert

Altogether, the openness of retail stores to provincial meat appeared to be a significant factor for some operators.

A Lack of Skilled Labour

Most abattoir operators and organization representatives identified a lack of skilled, available labourers in their area as a barrier to their success. OIMP representatives, for instance, shared some preliminary findings from their strategic development processes which identified a lack of skilled labour as the "number one challenge facing the industry. Without a labour force, it doesn't matter if you've got an efficient abattoir or a beautiful processing plant; you need people to work." They went on to note that finding people who are willing to work on the "kill floor" (slaughtering animals) is very hard, and that "youth are not coming out of school saying 'I want to go work at the slaughterhouse'." Even finding skilled labourers needed to work in value-added processing tends to be a major challenge, they report (Interviews: Judy and Rita).

The crux of the issue seems to be that that abattoir operators need *skilled* labourers who are able to keep up with the increasingly technical protocols that must be followed, but who are willing to work for the relatively low wages that abattoirs are able to afford. As one

southwestern Ontario operator – who recently shut down the slaughter portion of the operation – noted,

> You need the right people in order to run [a slaughter plant] and it takes a lot of detail - keeping orders straight, etc - and you need skill. And we have trouble finding skilled workers out here.
>
> - Sam, former abattoir operator (now operates a Free-Standing Meat plant)

Another interviewee noted the challenges that emerge when there isn't consistent high demand for slaughter services, which forces him to hire workers on a part-time or seasonal basis only. This results in being able to attract less skilled or responsible candidates. He is also upfront about the fact that they aren't able to pay very high wages.

> The other thing is the employees...like once you have to reply on part-time help it's harder to find help. Most people want a full-time job. And then the wages...we're kinda cheap so we're probably down at the bottom end of what wages should be, well we've got a wide range...
>
> - Ray, operator of a poultry slaughter plant

He went on to say that they are lucky to have some great employees, but that others are consistently hard to rely on; "we have some that show up and then they don't…" Another operator, Spencer, explained that the lack of skilled employees and the aging of many operators are interconnected issues. "So often the only skilled people are the owners and when those owners get old enough that they can't work like they used to, that's certainly an issue," he explained.

Altogether, these barriers – from meat cutting as a fundamentally low-margin business, to competition with conventional meat system, to a changing agricultural landscape and a lack of skilled labourers – were identified by most participants in the interview process. No interviewees made an effort to contest any such claims, and most had stories to back up their thinking in identifying these barriers. Two more barriers were brought up, however, which were not so unanimously agreed upon, and discussion will turn to those now.

Inconsistent Farmers

A primary concern that some participants brought up when asked about the causes of abattoir closures was that farmers were fickle customers. They pointed to experiences with farmers who wanted to make use of a local abattoir - indeed, expressed a belief that they had a right

to access an abattoir locally – but did not seem to understand that they (and other farmers) were not providing enough business to make that possible. Sometimes, it was argued, farmers either choose take their animals elsewhere (if they could get a good price) or got upset when abattoir operators had to raise their prices.

One abattoir operator brought up the fact that farmers sometimes oscillate between selling to federal plants and selling through the provincial system depending on prices.

> The BSE crisis in 2003 … caused beef cattle prices to collapse in Canada, especially for cull cows, and farmers were desperate to have another avenue - another way - to market their own beef. So they looked more to provincial markets. […] And one of the harsh realities that's happening now is that continentally, because the beef cattle herd inventory is down, and because of other differences in US rules compared to Canada, live animal prices are now high. So what happens is that the farmer sells their beef cattle *live*, and they're not sending the animals through the abattoir.
>
> -Leroy, Abattoir Operator

This inconsistency of supply seems to be particularly acute for abattoirs located near the US-Canada border, as this abattoir is.

Another operator echoed his concerns, expressing the challenges that some operators (those with retail shops who need to buy animals themselves) experience in finding good animals locally.

> It's not that I don't sympathize with people [farmers], but it seems like they're identifying that they have a right to have an abattoir in their area. And in a lot of situations these are the same producers that sell their cattle to Cargill regularly and don't support a local butcher regularly by maybe accepting a couple cents less for a pound or something like that. Often in order for a small abattoir to buy animals locally they have to out-bid the large packers, which is a completely unusual situation.
>
> - Spencer, Southern Ontario Abattoir Operator

As well, many participants identified a need for more collaboration between farmers and abattoir operators. Some interviewees implied that farmers must be willing to take more responsibility for the fate of abattoir and make attempts to provide them with the kind of customer base they require. Representatives of the OIMP told me that farmers need to consider the custom slaughter fee the farmer needs to charge in order to cover operating costs, and ask themselves, "Are you willing to pay that? And then what volume has to go

through?" And then, "will you guarantee bringing, say, those animals that you raise on your farm?" Indeed, the inconsistent supply that tends to result when abattoirs and farmers have not cultivated a strong relationship over time seems to be an issue across the continent, according to a study by the Niche Meat Processor Assistance Network. This study found that "stabilizing and enhancing meat and poultry processing for local markets requires that farmers and processors build more established and predictable business relationships, shifting from convenience to longer-term commitment (Gwin and Thiboumery, 2013.)

I also encountered examples of clear action taken by farmers in support of local abattoirs, as well as more generalized support and appreciation for their local abattoirs on the part of farmers. One Northern Ontario operator explained how the abattoir he now owns had closed down several years ago and, in response, a group of farmers from the area had come together to invest in the abattoir. As well, Jenny and Bennett, two Northern Ontario farmers who raise poultry, were very quick to sympathize with the tribulations of operating an abattoir and expressed a clear commitment to developing strong relationships with their abattoir operator. I also heard other farmers recognize that the relationship between farmers and operators can be antagonistic because the operators keep being forced to raise their prices, while the farmers don't want to pay more. As Gloria, a Representative of the National Farmers Union, expressed, "I have also heard some abattoir owners say that one of the challenges is that they get pushed by farmers on how much it costs them to process. And that is discouraging… I try to say 'if you have to do it, do it, fine, I don't care! I'll just pass the cost along'…" Interestingly, all four farmers interviewed expressed a willingness to pay more to help an abattoir stay open, although it is difficult to say how much of an additional cost they would be willing to pay.

There was little outright conflict between the views of the interviewees on the issue of farmer/abattoir collaboration, and even those who hadn't identified this as an issue usually agreed that more cooperation between these two parties would likely be helpful. Participants mainly diverged on whether or not the lack of collaboration was a primary cause of the closures and, furthermore, whether renewed collaboration between these two groups would be enough to actually prevent further closures or reverse closures that had already taken place. In other words, not everyone agreed on how significant the lack of farmer commitment was across the province.

Poor Adaptation to a 'new industry reality'

A second point of divergence between the participants related to the ways in which operators had been managing their businesses. Several significant stakeholders – representatives of the OIMP, as well as one prominent operator, Spencer – expressed the belief that abattoir operators have largely been failing to adapt their business to "today's realities." This lack of adaptation takes various forms, they argued, ranging from a lack of regular investment, to an unwillingness to raise prices, to a failure to take on more value-added activities.

Two representatives of the Ontario Independent Meat Processors, Judy and Rita, discussed a variety of challenges facing the sector, a central element of which was a lack of regular investment. They also identified some factors that were outside of the control of abattoir operators (like the lack of skilled labour and inconsistent farmer customers) but they also argued that some abattoirs were responsible for the challenges they faced. The crux of their argument was that a lack of *consistent investment over time* had left many abattoirs in a position where their infrastructure was breaking down and they were faced with the need to invest in many new pieces of infrastructure all at once. Had operators invested more regularly all along, said Judy and Rita, they would probably not have found themselves in this situation.

Their narrative focused on the notion that abattoirs can only be expected to continue operating if they are turning a profit, and that financial viability "can be related to the requirements to ungrade a facility, to meet those standards, the failure to reinvest over the years…" Closely connected – and implicit in this discussion – is a belief that the level of investment that abattoirs are being asked to make (outlined in the standards set out in the regulations) is *reasonable*. Others very much contest this conclusion by arguing that the demands made by regulators are excessive, illogical or unrealistic. Therefore, rather than problematize the *amount* operators are being asked to invest, these OIMP representatives problematized the fact that operators aren't *able* to make these investments. This is evidenced in comments by Judy;

> Those who have not been willing to reinvest have not made themselves competative. It's like if you don't invest in your car, if you don't do your oil changes every 5000 km, eventually you're going to have to replace the engine block. Ongoing and small investments wil eventually lead you to a better place than having to do it all in one big chunk.

Secondly, these participants drew attention to the low rates that abattoirs tend to charge farmers. Spencer emphasized this point the most emphatically, saying "a lot of our competitors in the area work on pricing that worked 20 years ago and they really haven't updated it... their pricing still seems to be focused on trying to attract new business…" He implied that operators simply haven't realized that they need to adjust their rates to compensate for other increasing costs, a point he made by relaying a recent conversation with a fellow operator.

> I had a conversation the other day with an abattoir owner and he mentioned that they had a 'eureka' moment… they were looking at services changed by a tractor service facility, in their neighbourhood... [and noticed] their rates had gone up from $40 an hour to nearly $100/hr. And he said "well why haven't ours?" and they said "well ya, why haven't they?" There's certainly a lot of upkeep required in a meat plant, and so those are the kinds of rates you have to pay so you can make sure you can reinvest.
>
> - Spencer

A lack of business acumen was deemed to be part of the problem, implying that the solutions to the problems that abattoir operators face could be addressed, at least in part, by enabling operators to better develop their business management skills. The same operator went on to say,

> … from the cost side, certainly there's been a change where labour applied in an abattoir was directly attributable to pounds of meat sold, whereas there are indirect costs of labour such as bookkeeping, documentation, food safety, something like that that doesn't directly apply to the pounds of meat. So I think that people's sophistication and how people apply indirect costs to their products has definitely been a feature that some have understood and some have not.

During conversations with Spencer, Judy and Rita I noted little recognition of other factors constraining operators and causing them to restrict the extent to which they raise their prices, which other participants did bring up during the interviews. As one operator explained, "we depend a lot on farmers for our livelihood and the farmers are not the most profitable business either! They're working in a deficit all the time, so we can only keep bumping our prices up to a certain point and then they say 'I'm just going to quit selling beef, I'll just ship it to the sales barn.' Basically...you're cutting your own throat by raising your own prices" (Interview: Jim).

A third point, made by Spencer, was that abattoir *expansion* – both in terms of scale and in terms of engaging in more high-value processing – will have to be part of future survival

strategies for local abattoirs. Spencer emphasized the importance of these strategies, arguing that it is because operators have not pursued such strategies that they have been closing in such large numbers.

> In order to maintain volumes with that sort of situation [where farms are closing] you have to look at more value added, or more refined cutting, or different purchasing options for consumers. And I think that some have made that leap and some have not.
>
> - Spencer

Overall, these stakeholders recommended better *adaptation* on the part of operators to the changing business climate which resulted from broad industry changes, including the 2005 regulations (which will be discussed next). These three modes of adaptation – the need to invest regularly, raise prices and take on value-added or other forms of expansion – were some of the reasons for closure that these stakeholders point too. These foci are evidenced in the types of activities the OIMP is engaged in; over the years they have offered workshops on branding, merchandising and business planning, as well as funding to support the creation of business expansion plans (OIMP, 2011 & 2014; also, Interview: Betty). As well, however, these stakeholders emphasized contributing causes such as the lack of access to skilled labourers and declining numbers of livestock farmers.

The assumptions that underlie these beliefs are significant and play out further in debates surrounding the role played by regulation. In particular, the tendency of these stakeholders to reply on appeals to the inevitability of this type of regulation, as well as its basis in food safety science, can be problematic. This will be addressed in chapter 7.

Conclusion

The stakeholders I spoke with identified a wide range of challenges that make (or *made*, in the case of former abattoir operators) survival in this industry difficult. To begin with, most agreed that the reality of a shrinking market for abattoir services (connected to changes in the farming community, as well as changing consumer habits) was a major contributing factor. Stakeholders also focused on rising costs (which they associated in some cases with regulatory changes – as will be discussed further in chapter 7), which many argued could not be simply passed on to their customers, the farmers. Many brought up the challenges associated with securing a new generation of owners, managers and employees, in terms of enabling operators' children to stay in the business as well as with finding other skilled

young people to purchase or work at the slaughterhouse. A lack of training assistance and educational programs in butchering at Ontario colleges came up often as a contributing factor.

Competition with conventional meat systems was additionally cited by various stakeholders. Vertical integration has reached momentous levels (OCED, 2006) and enabled economies of scale unthinkable by provincially-inspected, local plants, and are usually able to offer cheaper meat products. Unfortunately, these smaller plants (and many of the farms that make use of their services) cause far fewer of the ecological and social damages which are externalities of industrial meat processing systems and yet, are left to be out-competed by conventional meat packing companies.

Several more contentious causes were cited: inconsistent farmers (who use customer slaughter services not enough or inconsistently) and operators who have failed to properly adapt to new industry realities. First, some stakeholders cited a lack of farmer commitment to local abattoirs, despite wanting to have one available, through all farmer-stakeholders interviewed were willing to pay more if necessary. Furthermore, most (both farmers and abattoir operators) seemed in favour of more collaboration between operators and farmers as a way of achieving better mutual support. Secondly, a small group of stakeholders (including one operator and two representatives of the OIMP) cited the fact that many operators had not been effectively adapting to new industry realities as a major cause of closures. Their contentions will be further assessed in chapter 7.

Finally, although not noted above, an additional factor which most stakeholders cited as a major contributor to closures was the regulatory framework which governs the operations of provincially-inspected plants. Designed to ensure that all meat processed in Ontario's plants is safe, this framework dictates how – and in what kinds of physical spaces – local abattoirs must operate, as well as specifying mechanisms for the enforcement of these rules. While this was the most significant factor cited over all (but, as this chapter has shown, by no means the only important or relevant one), the next two chapters explore this factor in greater depth.

First, chapter 6 involves an analysis of the nature of the current regulations which, as will be explained, have quite recently undergone some significant changes. Then, it delves into

questions regarding why changes of this type were made – at this time – in Ontario, delving into the local and global political motivations behind these standards.

Chapter 6: Getting Behind the Regulations

The causes of abattoir closures are rooted in a complex mix of factors, some of which are closely connected to business profitability and economic imperatives, and others which are non-economic in nature, as chapter five has just made clear. Two major points of contestation between stakeholders centered on the claims made about both farmer and operator responsibilities, and the importance of both. However, the most significant point of contention revealed through the interview process related to regulation: specifically, the food safety standards with which a local abattoir must align in order to maintain its license. This set of rules, laid out in provincial legislation, have been designed to ensure that only the safest meat is coming out of Ontario's slaughterhouses, but their impacts – both on safety grounds and in terms of the abilities of abattoirs to adhere to them – are highly contested.

The goal of this research was not to conduct detailed financial analysis into specific abattoir businesses, nor to make sweeping conclusions about whether or not the nature of Ontario's food safety regulations are causing abattoirs to close. As such, I will not be offering any specific conclusions about whether regulation is *the* primary cause of abattoir decline. However, the extent to which the stakeholders I interviewed focused on the role played by regulation made it clear to me that this topic demanded in-depth exploration. Ontario's food safety regulations *were* the most-cited cause of abattoir closures identified through the interview process, as every operator interviewed except for three specified that they thought it presented major challenges to them, and unnecessarily limited their capacities to succeed.

What *did* become clear to me as a result of this research is that the rules and standards that have been created to indicate the line between a *safe* process and a *risky* process– or between a safe piece of infrastructure and a hazardous one – have impacts on abattoir operators, which a few claimed were beneficial and most claimed were detrimental. These regulations create the conditions within which every meat plant must function, and these "rules of the game" can change with the stroke of a pen. Unfortunately – and as will be further argued in the last chapter – regulations are frequently and problematically represented as being 'apolitical' and emerging from a science-based approach to risk assessment, which shuts down possibilities

for debate about the details of the regulations, and does a disservice to operators by failing to adequately acknowledge the significance of these details to them.

These next two chapters explore these regulations from their origins through to their impacts. The questions, "why are Ontario abattoirs being regulated according to these new standards?" and "how has provincial level food safety regulation been impacting local abattoirs?" are both taken on. To this end, the chapter addresses begins with an overview of how regulations have changed. I attempt to focus on the elements of the changes which were most often discussed by stakeholders and, drawing on interview data, show how the changes "on paper" were accompanied by a shift in the culture of enforcement. Next, the discussion moves to questions of the origins of these regulatory changes, discussing both Ontario-specific political influences and the impacts of attempts to align local regulation with global norms – both of which were pointed to by interviewees.

I. New Food Safety Standards

Two changes to provincial legislation governing food safety have been significant over the past two decades. First, in 1992 *Ontario Regulation 632/92* eliminated previous "exemptions" from the Meat Inspection Act, effectively broadening mandatory inspection to an unprecedented extent. Second, between 2001 and 2005 the original Meat Inspection Act of 1962 was replaced with the *Food Safety and Quality Act* (FSQA) and *Ontario Regulation 31/05* (often referred to simply as 'the Meat Regulation'). Third, the audit was introduced as a key management technique within the Meat Inspection Branch in 1995 as a tool for ensuring that every plant is designed and equipped as it is specified in the regulations.

The first set of changes was significant in that it put an end to the exemptions that remained from when the act was first implemented, in 1962, which allowed for uninspected slaughter of animals *under certain circumstances*. The exemptions had been originally designed to appeal to the needs of rural producers. One exemption allowed farmers to sell "undrawn, undressed poultry" (UDP) that an *un*inspected butcher shop had processed for them. The other exemption allowed for the sale of farm-slaughtered meat of any kind from the farm gate. Additionally, poultry plant inspection did not actually begin until 1982, due to the decision to implement the regulatory requirements gradually (Haines, 2004).

In 1992, with the implementation of Regulation 632/92, the exemptions which had been allowing on-farm slaughter and the sale of undressed poultry were eliminated. Essentially, this change meant that farmers could not sell their own meat – even to their friends or neighbours – if it had not been processed in a provincially inspected abattoir. The only remaining circumstance under which a farmer could slaughter his/her own livestock was if he/she were going to eat it themselves, along with their close relatives. Provincial authorities began to enforce these new rules beginning in the early 1990s.

There was a substantial network of uninspected abattoirs in existence, since meat sold on-farm was able to be slaughtered at an uninspected plant, and so the Ministry of Agriculture and Food faced a significant challenge in attempting to shut down these uninspected slaughterhouses.

One operator recalled this period of "crack down" as follows:

> It was gradual...back in the mid 80s there was a lot of concern about illegal slaughter coming on....dirty operations.... they needed to be shut down for sure, it was decided. These were the guys who were in the business of running an operation like mine but they do it in some kind of a dirty shabby place, they wanted to shut them down.

He went on to say that OMAF enforcement officers, whose job it was to identify these illegal facilities, used to come to him – as an inspected facility operator – in search of information about illegal operations. In his opinion this scrutiny, which was first directed at uninspected plants, was later directed back toward people like him, which he resented (Interview: Peter).

For the most part, however, the 1992 amendment appears to have not impacted inspected abattoirs significantly. In theory it should have helped them by eliminating the competition, although none of the operators I spoke to reported feeling this way. However, according to some interviewees, the changes prompted some other outcomes which eventually had negative repercussions for them. For example, Albert asserted that the elimination of on-farm slaughter prompted some people to stop raising animals – especially if they were doing so as a side business – because the cost of hauling to and paying for slaughter services was prohibitive. In turn, this led to the decline in rural sales barns, which impacted a wider array of farmers by making it harder to buy a few animals locally (without having to breed your own animals). Ontario Regulation 632/92 did change the meat processing landscape in

Ontario significantly, likely bringing some advantages and other disadvantages to inspected abattoir operators.

The changes that took place between 2001 and 2007 were far more significant, however. This is because a new piece of over-arching food safety legislation – the *Food Safety and Quality Act* – received royal ascent in 2001, and was fully proclaimed in 2005. Under this piece of legislation there were five regulations, one of which focused on meat and set rules for provincial meat plants; this was Ontario Regulation 31/05. Officially, it replaced Ontario Regulation 632/92 in 2005, at the same time that the *Food Safety and Quality Act* replaced the long-standing Meat Inspection Act.

How were these new regulations different? First, they introduced several new types of regulation: they licenced freestanding meat processors (FSMPs) for the first time; required food-handler training, required much more documentation of sanitation efforts; strengthened 'process controls'; required more strict labeling and required flock health records (OMAF, 2005). They were also, quite simply, far more detailed than the regulations that preceded them. Regulation 31/05 contains 14 parts with 138 clauses, which address topics ranging from "premises, facilities and equipment" to water, operations, personnel, emergency and non-emergency slaughter, transportation standards and inedible materials disposal controls. In contrast, Ontario Regulation 632/92 contained 95 clauses and they were generally far less concise.

As an example, consider the issue of lighting as addressed in each document. In O. Reg 632/92, within the section on "Facilities and Equipment", lighting is addressed in clause 6 (2): "Rooms and areas in the plant shall have lighting, ventilation, heating and plumbing that meet the requirements of the activities carried out in them and shall be constructed to facilitate their cleaning and disinfection." In O. Reg 31/05, in contrast, lighting was given its own clause, number 17. It reads: (1) A meat plant shall be equipped with adequate lighting that (a) meets the minimum levels of illumination set out in Column 2 of the following table opposite the rooms or areas described in Column 1, and (b) does not distort the colour or other appearances of food animals, carcasses, parts of carcasses, meat products or ingredients. The table "Minimum Levels of Illumination" table outlines various "lux" levels

required in different areas of the plant, from inspection stations to dry storage to maintenance closets.

Some elements of O. Reg 31/05 came up during the interviews repeatedly. These included clauses 85, 86 and 87, which mandated an "inedible materials" room with shipping door and kept at 10 degrees Celsius or less and clause 28, which required a separate "changing room" for employees. Clause 84-84.12 also came up frequently. It outlines new rules which specified procedures for the emergency slaughter of animals, which refers to cases where an animal is injured, has escaped or for some other reason can't be safely transported to a slaughterhouse. In 2002 it was decided that any "non-ambulatory cow" (called a "downer") would have to be inspected before and after being killed by a veterinarian, and this was solidified in legislation in 2005. The new rules required that a veterinarian go to the farm to check out the animal before any action is taken, to determine whether it looks diseased and whether there is reason enough to not transport the animal live. Practical difficulties are said to be associated with this requirement, such as the fact that animals get injured at all hours of the day and night and a vet cannot always be on-site immediately, meaning that animals often suffer for hours before a farmer is "allowed" to legally kill it.

Secondly, as mentioned above, O. Reg 31/required inspection by OMAF of plants engaged in processing and further processing, but not slaughter, for the first time; these are called Free-Standing Meat Plants (FSMPs). Up until then, those had been regulated by Municipal Health authorities under the Health Protection and Promotion Act, which involves periodic visits by a health inspector but does not require infrastructural and process-related requirements, like OMAF does. Now, these plants were identified by the type of processing activities they were engaged in, according to a new division between "category 1" and "category 2" activities. If engaged in "canning, curing, dehydrating, emulsifying, fermenting or smoking" of a meat product, manufacturing any "ready-to-eat" products (like salami or meat pies), or in selling *any* products (even simple pork chops) wholesale, a plant now qualified for meat inspection. This meant that these businesses were subject to much stricter rules, as well as periodic inspection by OMAF inspectors.

Since all slaughterhouses were already under OMAF inspection, this facet of Meat Regulation 31/05 did not profoundly impact them. In some cases, the operators I interviewed

were glad that butchers who had been engaged in these "riskier" processes of smoking, curing, etc. would now be more strictly regulated, which they saw as fair and a step towards "evening the playing field" with their competition (Interview: Mike). Others, however, emphasized that the demands made in the Regulation didn't work well for them – nor did they work well for their "butcher shop" (Free-Standing Meat Plant) neighbours. The Ontario Independent Meat Processors, however, were in favour of expanding OMAF inspection to FSMPs engaged in high risk activities, and they were part of 2001 and 2005 consultations that led to Meat Regulation 31/05 (OIMP, 2013).

The third element of the provincial regulatory regime which was repeatedly identified as being problematic is the annual audit, formally known as the "Compliance Verification Program". Introduced as a regular component of provincial meat inspection in 1995, this technique has been increasingly used in large-scale plants in both the Canada and the US. The purpose of the audit is to "determine whether the structure, equipment, practices and operation of the abattoirs are in compliance with the regulations" (Haines, 2004, 251). To conduct each audit, an individual evaluates the performance of an abattoir in three key areas – animal welfare, food safety and occupational health and safety - with an "outside" pair of eyes. Beginning in 2011, all slaughterhouses began to be audited by members of OMAF's veterinary workforce, while Free-Standing Meat Plants are audited by staff from QMI-SAI Global, an expert in "certification services" that also provides auditing and training services (Haines, 2004; QMI Website, 2014).

The auditors produce a report which is passed on to the local inspection team and includes a letter rating (e.g. A, B, C) that sums up the achievements of the plant. In writing the report, audits consider the relative importance of the 600 Meat Plant Guidelines which were ranked according to the level of risk in 2011, specifying that "any findings of non-compliance for sub-elements that are ranked *significant high risk or critical high risk*" require immediate attention (OMAF, 2011b). These guidelines have been developed by OMAF's policy experts based on what is written in Regulation 31/05 and are designed as ways of helping to "specify" what is being asked, and provide more background information. (Therefore, the policy guidelines change much more often than the regulation itself; they are reviewed on a quarterly basis.) Then, members of the local inspection team meet with the operator (a

'corrective action plan' meeting) to go over the report and clarify which changes must be made before the abattoir can continue operations.

There are other provincial regulations – *non*-food safety related – which impact abattoirs, but they largely deal with marketing or industry quality issues (Haines, 2004). Other national programs, including those designed to control the spread of BSE including (such as the Canadian Cattle Identification Program, which requires that every cow in the country be tagged), and rules governing the transportation and disposal of Specified Risk Material (SRM), (which refers to the parts of cattle most likely to contain the agent which causes BSE) also apply to provincial plants (Le Roy, 2006). However, these were only brought up by several interviewees and so will not be the focus of the discussions which follow.

Overall, the 2001 and 2005 regulations instituted a number of significant changes in food safety governance in Ontario's abattoirs. To be sure, some aspects of these regulatory changes have likely resulted in safer meat, though incidences of food-borne illness originating in meat from Ontario's plants has not been tracked and so we do not know how effective these changes have been. At the same time, these regulatory changes appear to have have come at a cost, as will be discussed in the following chapter which is focused on the impacts felt by abattoir operators. At the same time, they have been motivated by factors beyond a simple desire to "make meat safer" – and an understanding of what led to these regulatory changes can help us to better evaluate their benefits and drawbacks.

As will be further discussed in the following section, these pieces of legislation are reflective of a turn towards an approach to food safety regulation based in 'risk analysis'. Terms like "risk-based" and "science-based" have also become common in the lexicon used by the Ontario Ministry of Agriculture and Food in the Meat Inspection Branch, reflecting the increasing relevance of this approach to regulation in Ontario. As Haines explains, it was OMAF's intention in approaching new food safety legislation to "develop *risk-based* food safety standards and regulatory programs…" (Haines, 2004, 98). The broader implications of this turn will be expanded upon as this chapter continues. First, however, a parallel shift brought up by many interviewees, which centers on their interactions and relationships with authorities enforcing the new regulations, will be briefly described. While more difficult to

quantify or define than the specific legislative changes that have recently taken place, this tendency is nevertheless worth noting.

A Shifting Enforcement Culture?

Some stakeholders also felt that a shift in the approach to enforcement took place around the same time the new legislation came into effect. Many interviewees claimed that, in addition to changes that were made to the written standards, a shift in the *approach* to regulation by OMAF also shifted. Stakeholders spoke about a more intensive and strict approach to the enforcement of regulations, which they surmised may have been adopted as a result of a belief that a tough stance toward uncompliant businesses was needed to 'get them in line' following a series of notable food safety scares. At the same time, interviewees referred to the promotion of more 'modern' and 'innovative' facilities and processes as a more prevalent part of the newly common approach to food safety regulation. Others suggested that the prevalence of inspectors from non-butchery backgrounds meant that they were more apt to enforce the rules in particular ways or adopt less understanding attitudes towards the viability of the abattoir business.

The change was generally reflected as a shift towards a less cooperative approach to achieving the desired outcome (i.e. operator compliance with a particular standard). As one advocate for small abattoirs said, "the attitude of enforcement has changed a lot. And I think that just happened so suddenly… that the operators were kind of caught" (Interview: Pam). Interviewees referred to this approach toward provincial meat inspection in various ways, with some calling it "hard-nosed" (Interview: Albert), describing it as an approach that depends heavily on the use of threats to compel operators to make changes (Interview: Mike), and calling it a "my way or the highway" way of getting results (Interview: Pam). Frequently, their accounts focused on the attitudes or tactics that they encountered in OMAF inspectors on a case-by-case basis. Most often, I heard operators express that they had experienced less willingness to hear their perspectives than in previous years. For instance, one operator said that requests used to be made of them in a way that allowed for discussion but that this became "less and less, to the point where it was a waste of time to try to even discuss this kind of issue with them" (Interview: Peter).

Today, there *are* various protocols and processes in place that are intended to ensure that regulations are implemented fairly. OMAF has a "progressive compliance" protocol, for example, which is intended to move an operator towards compliance with regulations in a fair and reasonable way. This involves setting "action-by" deadlines for particular required actions, but inspectors do have some flexibility in setting these time lines. If a plant is deemed "unsafe" operations will be suspended, but the operator can "request a hearing in front of a director to provide their side of the story" which may result in the licence being returned (OMAF, 2012). Indeed, it was under the auspices of improving the regulatory flexibility while ensuring food safety is protected that OMAF undertook a consultation process to discuss proposed amendments to O. Reg. 31.05 last year. Among the aims of the process were to "ensure the Meat Regulation is regulating the right types of businesses" and "reduce regulatory burden" (OMAF, 2013a). However, it is not clear that these commitments have been as fully in place since the changes were legislated, nor that abattoir operators are always aware of their official rights to contest decisions that they feel have been made unfairly.

Indeed, OMAF's official approach towards bringing operators into compliance differed in many ways with the reports given my operators. In addition, various operators and other stakeholders expressed very different views on the topic, though just over half of operators interviewed felt they had experienced an unfair approach to enforcement. For instance, some didn't mention a change in common approaches to enforcement at all; others thought enforcement had become uncompromising and harsh but had since become 'reasonable' once again; and others felt that the approach to enforcement has only become more hardnosed over the past 15 years, with no shift back. All OMAF documentation emphasized that the approach to regulation has always been "outcome-based" and that additional efforts are constantly being made to move further in that direction. The reality is that operators' experiences with inspectors and audits vary hugely. OMAF is clearly putting effort into ensuring that all inspectors are trained to be willing to be flexible and work openly with operators (Interview: Nathan, a representative of OMAF) but not surprisingly, it seems as though it is not easy to maintain a consistent approach to enforcement province-wide. To be sure, the power dynamic between operators and inspectors/auditors is fundamentally unequal; but many emphasize that this is the way it should be, as a more cooperative

approach could compromise food safety. However, the nature of this unequal dynamic – and a perception that it had widened - seemed to be at the root of operator dissatisfaction with the nature of enforcement. Overall, the most significant regulatory change to take place over the past 15 years has been the creation of Meat Regulation 31/05. However, it is also true that some criticisms of "regulation" voiced by stakeholders referred to shifts that they perceived in the approach taken by operators towards their work and their relationships with operators.

So, while this chapter has offered a summary of *what* recent regulatory changes have been made in this sector, it has not yet touched on questions of *why* these changes may have occurred. The motivations behind this new regulation are important because, as mentioned above, debates surrounding the role of regulation in the local meat sector tend to focus on the question of whether the regulations for good reason; or, protect public safety alone. This refrain is consistently used by those who defend the validity of the new regulatory regime. But the question remains: how was the regulation created? Was improving the protection of public safety the main factor that motivated the change? By delving into some of the events and policy changes that led up to the institution of the new regulation in 2005 we can hope to shed light on why the rules were established in the first place.

II. Causes of Regulatory Change

There are two realms of motivating factors that this research has uncovered which contributed to the creation of the Food Safety and Quality Act and Ontario Regulation 31/05. First, I will argue that the need to quell mounting consumer concerns with food safety – and improve a system that seemed to be floundering as a result of austerity measures undertaken by a Conservative government – amounted to one of the reasons that O. Reg. 31/05 took the form that it did. Many stakeholders mentioned one particular food scare, in Aylmer, Ontario, when asked to account for regulatory change in the province, which prompted me to further investigate this event. This scare identified some gaps in food safety protection and, with public opinion generally in favour of tighter regulation, the government seized the opportunity to make major changes to food safety regulation, which had been under consideration for some time. Therefore, the desire to harmonize Ontario's regulations with global norms played a role in the development of the FSQA. The relevance of these factors in

the development of Ontario Regulation 31/05 demonstrates the *political* nature of regulatory development (a process often claimed to be solely concerned with public safety protection, both in Ontario and more broadly). It also makes clear the role of broad global trends in generating very localized systems of regulatory governance, as well as clarifying role that specific, localized factors still played in motivating this regulation.

Over the next pages, the ways in which both of these motivating factors – the desire to harmonize regulations, and the need to address local political tensions around food safety protection emerging from a few 'food scares' – played into the development of Ontario Regulation 31/05 will be outlined. First, the discussion will turn to the food scares that took place during the ten years between 1995 and 2005 and explain how they contributed to the perceived need for regulatory reform. Then, I will move on to a discussion of the nature and origins of the political pressures for harmonization, finishing with a few words on what both of these phenomena can tell us about the roots of regulatory change in Ontario.

Politics and Meat Regulation in Ontario

Change took hold in Ontario's meat inspection branch of the Ministry of Agriculture and Food much earlier than 2005; in fact, 1996 was a key year for the Meat Inspection branch, even though no changes were made to the content of the food safety regulations whatsoever. It was this year that the Harris government, propelled by an election victory, cut the budget of the Meat Inspection Branch and replaced almost all of the permanent meat inspectors with "fee-for-service" (or "contract") inspectors. As I will go on to argue, this resulted in (at least) a temporary decline in the quality of inspection service, which likely contributed to the Aylmer meat scare of 2003, and made regulatory change seem more necessary. It also made regulations seem inadequate, when in fact, a major contributor to the weakness of the Meat Inspection Branch was the reduced level staffing it was faced with.

These workforce changes were followed by a food-borne illness outbreak caused by contaminated water and then by several 'meat scares' (one in a small Ontario plant and the other on a large Alberta feed lot). These scares cultivated fears about unsafe food and waste and prompted conversations about the appropriate role of regulatory agencies. Finally, there was an election and then a major policy shift steered by the newly-elected party (the Ontario

Liberals, led by Dalton McGuinty). This policy shift was encouraged by Justice Roland Haines, who conducted an extensive study in 2003 that made recommendations on the industry and pushed for sweeping changes. As the next few pages will make clear, there were many locally significant political factors that made far-reaching regulatory change seem like precisely what was needed.

It is important to understand how regulations like Ontario Regulation 31/05 emerged. Indeed, a policy or regulation that has emerged through a specific yet fraught set of political processes presents an entirely different set of opportunities for critique and action than one which is viewed as having been inevitable or having been based solely on objective, apolitical information (Post, 2006; Dunn, 2007). By uncovering some of the political factors that played into the creation of Ontario's meat regulatory system, we move towards a better understanding of the highly contested views on its role that pervade discussions of abattoir challenges in the province.

Precarious Employment = Precarious Food Safety System?

The Conservatives were elected to the provincial legislative in 1995 and within months they had tabled their first budget, which required a number of ministries to reduce their spending, including the Ministry of Agriculture and Rural Affairs. KPMG, a global business consulting firm, was hired to determine how to improve efficiency in the Meat Inspection Branch, which they determined could be achieved in part by altering inspectors' conditions of employment (KPMG, 1995).

In 1995 there were 150 full-time Meat Inspectors employed in the branch. KPMG consultants determined that expenses could be reduced if inspection hours were decreased, which could be done by ensuring that inspectors were only paid for the hours they work. So, OMAF laid off all but 10 permanent, full-time meat inspectors in 1997 and hired 130 contracted inspectors to replace them, leaving the branch mostly staffed by contact workers (Boroway, 2005). Ninety-five percent of its members were not official provincial employees as of 1997, and their working conditions were very different. They were paid a wage of $20/hour, which was 5% less than their federal level counterparts but $3 more than inspectors had previously been paid. However, they were now seen to be operating their own businesses, so had to cover all associated expenses, including travel costs, and could not access benefits nor

remain members of a Union (the Ontario Public Service Employees Union) (Eves Defends, 2003). As well, their wages stayed at the same level for 7 years, until meat inspectors were made provincial employees again in 2004 (Borowy, 2005).

Up until 1997, inspectors had been paid a salary, which included pay for time spent in transit, as well as guaranteed pay regardless of whether the inspector prohibited processing from continuing, in a case where they found something unsafe. Since most provincial plants only engage in slaughter a few days each week, travelling from plant-to-plant is a regular and time-consuming part of most inspectors' jobs. In addition, a key power that every inspector holds is their ability to stop work at a plant if they feel it is occurring in an unsafe way. By cutting off inspectors' pay when they decided to do this, an opportunity for conflict of interest was opened up (Haines, 2004). According to Borowy, "the system was designed so that inspectors faced an impossible alternative: the choice between minimum hours for them and protecting public safety" (2005, 172.)

One contributing factor to the decision to make these cuts was the fact that meat inspectors, as members of the OPSEU, had gone on strike in 1996 in opposition to the Harris' governments' proposed budget cuts, forcing abattoirs to shut down for about five weeks (Borowy, 2005). Operators and their representatives were upset and the government wanted to ensure that this did not happen again, which provided added impetus for removing the majority of the inspection staff from the public service. On paper, these changes were made in the name of *improving* the system, as evidenced by the title of KPMG's report, "Study and Recommendations for Improving Meat Inspection Services in Ontario Provincially Inspected Abattoirs" (7 September 1995), but they seem to have had the opposite effect.

With lower salaries, fewer benefits, fewer hours and less job security, many retired or pursued other career options (Haines, 2004). This left a large gap in terms of experienced inspectors who could be called upon to train the new hires. Various reports cited high employee turnover rates (Eves Warned, 2003) and "resentment within the inspectorate" of the conditions of employment (Haines, 2004), as well as to declining quality of food inspection. An OPSEU representative characterized the situation saying, "training is poor and inconsistent at best. Inexperience plus poor training means we haven't been getting consistent, quality provincial meat inspection…" (Meat Inspection will be Election Issue,

2003). According to Borowy, “precarious employment in meat inspection contributed directly to a precarious food safety system” (2005, 172.)

Given the need of the inspection service to hire many contract inspectors at once (and to do so on a continued basis, given the high turnover rate), it seems that the approach to hiring shifted. According to a 2003 OPSEU report, there were two distinct groups of hires that emerged: older men with considerable experience in the federal meat inspection service, and younger people, more often female or people of colour, who had little experience in the sector (Boroway, 2007). In addition, interviewees reported that many of the new inspectors tended have more formal education but less practical experience with livestock or meat processing (Interviews: Todd, Ray, Peter.)

They focused on a lack of practical knowledge about animals and the work of slaughtering and processing livestock. For example, Todd said,

> “These days, the meat inspectors aren't experienced, not in business or in butchering. The old guys had all worked at butcher shops… they knew about meat...”

As well, one of the former inspectors with whom I spoke expressed a similar evaluation regarding the tendency of new hires to have different work backgrounds. He said his former colleagues had generally been “veterinarians or people with degrees in science” and in some cases were working as meat inspectors only because they could not find work as veterinarians (Interview: Bruce). It cannot be said with certainly what effects these changes had on the quality of inspection or on butcher-inspector relationships, though some interviewees argued that the lack of familiarity of inspectors with the work of slaughter led to tense disagreements on a regular basis and, generally speaking, a difficult dynamic. Operators expressed the feeling that when authority is not accompanied by extensive knowledge, it begins to seem arbitrary and unjust to operators (Interviews: Jim, Hiram, Peter).

Beginning in December 2003, the newly-elected McGinty government reversed the switch to contract employment in the workforce, hiring 61 full-time and 61 part-time meat inspectors for a total of 132 new members of the public sector workforce (OMAF, 2005.) But the cuts had already had long-term impacts by that point; the damage was done. By undermining the conditions of employment of the inspection workforce, many experienced inspectors were

lost at once and were replaced with a more precarious workforce with fewer reasons to shut down an abattoir if they found safety concerns (Eves Defends, 2003). When food scares emerged in the early 2000s, many argued that this was likely attributable to these conditions of employment, which left inspectors "too willing" to let things slide, being underemployed and under-resourced. However, rather than just inject some funding back into the Ministry of Agriculture, the newly-formed Liberal government decided to take a stronger stance and introduced a new mode of regulation entirely. The role that these food scares played in legitimating this type of response will be discussed now.

Food Safety Scares

The term "food scare" came into popular usage in the mid-1980s (Nestle, 2004) and, while the term is used in different ways, it generally refers to the "spiraling public anxiety over food safety incidents and escalating media attention that supplements such events" (Knowles and Moody, 2007). Widespread anxiety tends to result, and overall consumption of the product in question tends to decrease (Freidberg, 2004). Governments are forced to respond, often by tightening food safety regulations - though not always. Overall, the severity of the event – and the government's response – relates closely to public *perceptions* of risk, which may (or may not) be based in careful evaluations of actual levels of risk (Randall, 2009).

The most significant food scare that has occurred in a provincially-inspected Ontario meat plant in recent memory took place in the 2003 in the sleepy South-Western Ontario town of Aylmer, Ontario. But just before, a crisis related to contaminated water occurred in Walkerton, Ontario, and, because its impacts were quite severe, it received substantial media attention. This event played into – and was often invoked in reference to - the Aylmer scandal, raising the its profile and cementing connections between budget cuts and food safety consequences. During the interview process interviewees brought up both scares, and some individuals referred to both. Before discussing the Aylmer tainted meat scandal discussion will briefly turn to the Walkerton crisis.

The Walkerton Crisis

In May 2000 E. coli O157:H7 and Campylobacter jejuni bacteria entered the municipal water system in Walkerton. In the weeks that followed more than 2,300 became ill and seven died (O'Connor, 2002). Justice Dennis O'Connor was asked to lead an investigation into the

causes of the tragedy and in 2002 he released a report which found fault in two parties: the Ministry of the Environment and various local managers.

In essence, the outbreak was attributed to inadequate preventative action, as well as the failure of local officials to notice the unsafe e-coli levels, due to deficient testing. The failure to test daily was the local manager's fault, but the Ontario Ministry of the Environment was blamed for the lack of preventative action (O'Connor, 2002). The Ministry of the Environment had recently suffered a two hundred million dollar budget cut in 1996, reducing their workforce by 30% (O'Connor, 2002). These overall cuts meant fewer water inspectors, a fact which received attention following the crisis. O'Connor also attributed the fact that no attempt had been made to install the monitors to the "regulatory culture" at the ministry, due to the government's "red tape commission" (O'Connor, 2002, 33). In other words, with such a heavy focus on "doing more with less" it became acceptable to let poor practices go unquestioned.

Connections were made between government budget cuts, a lack of oversight and unsafe practices - and these connections were easily connected to what happened in the meat sector when the tainted meat scandal emerged in Aylmer.

The Aylmer Tainted Meat Scandal

In 2003 Aylmer Meat Packers, a provincially-inspected slaughterhouse, was accused of having processed deadstock (animals that died of natural causes) in this business. The scandal erupted when the Ontario provincial Police announced that they were beginning a criminal investigation in late August of 2003 into the abattoir. It was revealed that the Ministry of Agriculture had been conducting an undercover investigation into the plant's practices in response to complaints brought forward by a citizen, and had evidence that deadstock had been illegally processed in the plant. The plant was shut down and a recall on meat from the plant was issued. The plant operator, Richard Clare, denied any wrongdoing – though he eventually pleaded guilty in 1997 and was fined (Defiant Cattle, 2010.)

The reputation of the Ministry of Agriculture and Food was hurt by the perception that the inspection workforce had been weakened by the cuts (and shift to contract employment) which they had enacted six years prior. The mere *possibility* that tainted meat had made its way into the food supply became a highly politicized issue raised many questions about the

capacity of the inspection service (‘Eves Defends Inspection’, 2003). “Walkerton” was invoked frequently in reports about Aylmer, adding to the sense of fear around the issue.

There were conflicting opinions on whether the episode proved that the inspection service was incapable of protecting public safety. Officials at the Minister of Agriculture argued that the system had worked exactly as it should have, given that the Ministry tried to work with the plant and, when that didn’t work, they had “yanked its licence” (OPP Begins Probe, 2003). As well, some contended that it was an evasion issue as opposed to an inspection issue (OPP Begins Probe, 2003) – and therefore, the regulations were not to blame but rather, enforcement techniques or capacity were the reason why this was allowed to happen. But the majority of media reports implied that the Meat Inspection System was fundamentally flawed. For instance, an inspector who used to work in the Aylmer plant was quoted as saying “these things have been brought to the attention [of ministry officials] by inspectors over and over, and nothing has been done…" (Waldie, 2003). Given the low morale that had become a feature of the inspection branch and the lack of experienced inspectors to train new hires (as described above), these structural failures seem less surprising.

Adding to the power of this story was the reputation of the owner of the Aylmer plant, Richard (“Butch”) Clare. His character was emphasized in media reports and contributed to an image of an “irresponsible and untrustworthy” abattoir operator. Media reports called him "opinionated" and a "redneck", with some quoting neighbours who “were afraid of the man and of his crew of slaughterhouse workers…” (The Complex Life, 2003). This reinforced the perception that a lack of food safety could be attributed to deviant behaviour, as Butch Clare fit perfectly into imagery of a neglectful butcher.

While this event did not receive nearly as much media attention as the event in Walkerton, it was nevertheless significant in the meat processing world. Many of the operators and advocacy group representatives that I spoke with brought up the event in Aylmer, naming it as a significant point because of how it hurt the reputation of the provincial inspection branch and how it prompted regulatory change (which some stakeholders considered a positive step, but others considered hugely disruptive). For instance, in a letter of recommendations in 2013, the OIMP mentioned that, “one illness or worse, death, related to a meat product, regardless of who is responsible for licensing or inspecting, impacts the entire industry.

Ontario's provincially licensed plants remain tainted as a result of the Aylmer incident in 2003…" (OIMP Letter, 2013). They go on to support the regulatory change that followed, seeing it as helping to counteract this 'tainted' view of provincial plants. Gloria, a representative of the National Farmers' Union, said "Aylmer Meat was who was responsible for the loss of trust in the provincial inspection system" and Sam, a former operator, also reported that the event had prompted the regulatory changes that occurred subsequently.

While knowledge of the incident may not have been particularly widespread across the province, the events in Aylmer seem to have motivated – and legitimated – regulatory change. Perhaps not surprisingly, this parallels other accounts of regulatory change in other jurisdictions. For example, in explaining the factors which led to the adoption of the 2011 Food Safety and Modernization Act in the US – a major overall of existing federal food safety regulation – the major changes were not made until after "a series of highly-publicized food safety scandals", including one major salmonella outbreak, which prompted wide public discourse around "the government's failure to protect public health due to flaws in the regulatory process" (Hassanein, 2011). Indeed, while the factors which led to the Aylmer scare likely had more to do with the decision to employ inspectors on a contract basis, the food safety regulations, and the approach taken by inspectors, were represented as being flawed, which provided legitimacy for a major regulatory overhaul.

Additionally, however, one other food-borne illness outbreak in the meat sector had impacts on public perceptions of food safety risk, increasing Ontarians' appetite for enhanced regulation: the BSE (Bovine Spongiform Encephalopathy) scare. Unlike the other two events just described, which were very Ontario-specific and thus reflected directly on Ministries within the Ontario government, this was a national – and international – issue. However, since it occurred during the same period in time it still played into local conversations about food safety (as well as leading to additional regulatory changes applied across federal and provincial plants.)

When a cow infected with BSE was found on an Alberta feedlot in 2003, the Canadian Food Inspection Agency was responsible for responding. Even though Canada had already implemented a number of regulatory changes throughout the nineties in order to avoid the disease, the 2003 infection occurred nonetheless. Nobody was made ill by the virus, but the

economic and trade impacts were massive. Many countries – most importantly the US – closed their borders to Canadian beef, and it is estimated that the economic impacts were as high as $1.5 billion (Gibson, 2003).

The whole event was significant for a couple of reasons. First, BSE (and the form it takes when transferred to humans, Creutzfeldt-Jakob Disease) presents a very mysterious and frightening threat, as it cannot be controlled in the 'usual' ways (like rendering meat products at high heat). Therefore it is capable of inciting fear to a greater extent than other sources of food-borne illness (Moens, 2006). At the same time, the BSE crisis exposed the fragility of Canada's beef export industry. The importance of *appearing* as a safe beef-producing country was shown to be extremely important; indeed, as Moens concluded, we learned that "Canadian risk-mitigating measures in the food and feed chain must exceed American measures in order to maintain confidence in Canadian exports…" (2006, 3). This meant that maintaining confidence in our agricultural products had more to do with risk perceptions and adherence to international standards than likely direct safety threats. Overall, the experience of suffering through a lengthy – and, in the eyes of many, *unfair* – period of exclusion from international livestock markets was formative, and more extensive (and strict) regulation across the meat sector was seen as the answer to these issues (Moens, 2006), further legitimating the move to extend Ontario's regulation that was already underway.

Liberal Government Response

The Harris government's cuts (and the resulting labour force changes), combined with these food/water safety scares, contributed to favourable conditions for a shift in provincial food safety regulation in 2004. The cuts decreased the quality of work being done in the inspection branch and both the cuts and the food scares (some of which were seen to have resulted from the cuts) hurt the governing party's reputation.

Leading up to the 2003 election the Ontario Liberty Party took advantage of both (Eves Defends, 2003; Eves Rejects Inquiry, 2003). Of course, there was some genuine interest in improving a food safety system that seemed to be broken; but this was also a political opportunity that the Liberal party used to distinguish themselves. McGuinty often spoke to the issue during the election, with statements like "We will hire full-time meat inspectors and restore confidence in Ontario's food supply" (Eves Rejects Inquiry, 2003).

After McGinty won the election in the fall of 2003 he immediately commissioned an investigation into the state of the provincial meat processing sector. In January of 2004 Justice Ronald Haines was appointed to lead this review, which was no doubt largely compelled by the events in Aylmer. His report was far-reaching; it touched on everything from livestock production and transportation to abattoirs and retail sales, as well as on issues like waste disposal and enforcement. It also made recommendations based on best practices in other jurisdictions, and favoured a more 'science-based approach to food safety' and for the reconciling of the provincial and federal systems. Haines concluded that the *Food Safety and Quality Act* (FSQA) should be fully enacted without further delay, which meant creating the regulation that would actually give it *power* (as it had been formally in place since 2001) – and this resulted in the enactment of Meat Regulation 31/05 within the year.

Many of his recommendations involved formalizing protocols or creating new ones. For instance, he recommended a formal complaints process, documentation of every instance in which management got involved in a dispute and a new policy ensuring continual inspector training. Other recommendations directly countered the employment cuts and changes from 1996, like the push for increasing the number of veterinarians employed by the inspection service, as well as clarifying that inspectors who "stop the line" must receive a full day's pay even if they do not decide the line should be started up again. He also suggested becoming stricter about certain things, such as on-farm slaughter (especially for 'non-ambulatory' animals) and hunted game (Haines, 2004).

And yet, throughout these events, McMohan's claim (2014) that media attention tends to focus on contaminated food and the failures of the inspection service, rather than the food system itself, held true. Rarely did media reports focus on the risks associated with feeding adulterated grain alone to cattle living in very small, confined spaces, or on those related to the extremely wide reach of the global trade in livestock and processed meat. Instead, discussion always focused on different ways to exert more control over the production and processing practices along meat supply chains, in order to make meat produced by this system as safe as possible.

The gaps inherent to this type of risk analysis will be further discussed below. However, a full understanding of the causes of regulatory change also must take into account the

influence of another factor. Prior to the late 1990s, efforts were already underway to change Ontario's inspection framework by aligning its provisions with national – and global – standards and norms, and this was accelerated through the early 2000s.

Global Pressures for 'Modern' Regulation

The original *Meat Inspection Act,* passed back in 1962, was designed to balance the protection of public health with the unique needs of smaller abattoirs and meat processing plants. Ever since, the balance between these goals – ensuring abattoirs are safe and sanitary, and making sure they can survive within the regulatory framework they are subject to – has been shifting. One source of this shift is mounting pressure to align provincial meat safety standards with 'industry norms'.

As our agri-food system becomes increasingly industrialized and globally-oriented, with consumers increasingly distanced from the producers of their food, the need to strictly regulate at each point along the food supply chain increases. Harmonized food safety regulations are widely recognized as decreasing trade barriers (Hooker, 1999), and have therefore become essential among World Trade Organization members' export industries. Therefore, as more standards and labels for various food qualities emerge so does the desire to align national standards with one another. In her analysis of changes in global food governance, Smythe begins by recognizing that "as regulations and standards around food have proliferated [with a globalizing food system] so have efforts to harmonize them, thus limiting their negative impact on food trade and market access" (2012, 3).

McMohan argues that even though the trade-related needs for regulatory harmonization should apply in theory to the scales of production oriented towards international markets, the desire to harmonize standards is beginning to extend to all scales (2013). She argues that the harmonization of standards has become part of the "institutional character of a neo-liberalizing political-economy," making it so that "food safety inevitably becomes 'food-made-safe for global trading', even if the particular food – like BC local chicken or lamb – will not be globally traded" (2013, 409). This has been observed in various parts of Canada, the US and Europe (see Miewald et al, 2013; Dunn, 2003), where we see it impacting the unique regulatory systems that were originally intended to protect a *different* type of meat

processing infrastructure and having differentiated impacts at different scales of production, rather than creating the "level playing field" that is the goal of harmonized regulation (Dunn, 2003).

In the following section I will argue that the regulations that currently govern meat processing in Ontario are, in part, a product of ongoing pressures to align or *harmonize* this regulatory system with national and/or global food safety assurance policies. These efforts have taken a few different forms over the past 20 years. I will go on to explain how these pressures originate in various places, starting with a discussion of global food safety standards and then moving on to a discussion about how they appear to have played into the development of Ontario's provincial regulations. Finally, I will finish by arguing that the regulatory system, which takes on its current form partly because of these pressures, favours the needs of those who depend on international trade at the expense of the needs of those oriented towards local markets.

National & Global Food Safety Standards

In many respects, the increasing globalization of food standards is a logical result of this globalizing agri-food system. Increasingly, standards for goods of all kinds – whether designed to ensure safely, quality or uniform production methods – are becoming a central tenant of global governance (Barry, 2001). Within the agricultural sector, the desire to ensure that countries across the globe possess harmonized standards is becoming a growing concern of global governance institutions, such as the World Trade Organization (WTO). For the WTO, the importance of these standards largely stems from the perception that they enable a "level playing field" for all economic competitors engaged in international trade (Dunn, 2003).

Canada espouses a firm belief in a trade-based pathway towards economic greater prosperity, within which the agricultural sector is central, and as such has an interest in setting national standards in alignment with global norms. According to a recent federal government review, "export opportunities are critical for the growth of the Canadian agriculture and agri-food sector […] as Canada [is] the sixth-largest exporter and sixth-largest importer of agriculture and agri-food products in the world [if the EU is treated as a bloc], with exports and imports valued at $40.3 billion and $31.0 billion, respectively" (Agriculture Canada, 2013).

Increasing exports of agricultural commodities necessitates maintaining and opening up new global markets, which in turn depends on other nations' trust in the safety of Canadian products.

The predominant belief is that trust is facilitated through the establishment and maintenance of uniform standards. Indeed, trade concerns have long motivated the development of safety standards; for example, recall that a key motivation behind the development of Canada's first meat inspection system in 1906 was the need to retain a place in the international market for beef (Fowke, 1946). Differentiated standards are considered to be a type of "non-tariff measure" (or barrier) and are viewed as potentially "lacking any scientific basis…and overly protectionist" (Beghin, 2013, 2) since, without a scientific basis, they could be used to, say, limit imports (by banning certain production processes which other countries' producers use) or unfairly expand exports by reducing regulatory burdens faced by local businesses. The underlying belief is that "a restriction which is not actually required for health reasons can be a very effective protectionist device, and because of its technical complexity, a particularly deceptive and difficult barrier to challenge" (WTO Standards).

Trade concerns are especially great today as a result of the trade rules set by the World Trade Organization (WTO) which specify that member states are required to set food standards which are based in scientific fact, as outlined in the Sanitary and Phytosanitary (SPS) Agreement. This framework has been designed to "guarantee transparency, non-discrimination, and proportionality in the selection and enforcement of relevant sanitary and phytosanitary measures" (WTO, 1999). Essentially, WTO members must abide by the SPS Agreement, and the SPS agreement in turn relies on standards set by the Codex Alimentarius Commission. The resulting Codex Standards represent the global consensus in terms of appropriate ways of regulating food safety. So, while WTO member states are free to create their own standards to some extent, they are limited by the dictates of the Codex Alimentarius standards.

The Codex Alimentarius Commission was created in 1963 as a joint project of the World Health Organization (WTO) and the Food and Agriculture Organization (FAO), and it sets standards related to many aspects of food safety, from food additives to pesticides to processing procedures. The SPS agreement was adopted more recently, as part of the

Uruguay Round in 1994 which led to the creation of the World Trade Organization (WTO), and based on the findings of the long-standing Codex Commission (WTO, 2014).

All in all, WTO member countries (of which Canada is one) *must* inform other members of changes to their regulations, avoid discriminating against foreign products, and be able to justify regulations related to food safety based only on "scientific grounds and, where available, relevant international standards" (Symthe, 2009, 4). Therefore, trade disputes often play out in the scientific arena, as countries wishing to maintain different standards must produce sound science that backs up their assertions regarding the need for those unique rules. In this context, "scientific facts" tend to be set out in opposition to "other" concerns, which may be social, environmental or health-related. Today, in cases of contestation over food regulatory standards among WTO members, contention is often over whether the non-science (often socio-economic) effects of a proposed technology are seen as credible (Kleinman and Kinchy, 2003; Smythe, 2009.)

Not surprisingly, nation states often come under pressure to adapt their standards according to local interests, stemming in part from desires to "compensate for the inattention of the market to public health and welfare in areas such as food safety and the environment" (Dunn, 2003, 1493). For example, European consumers opposed to the use of Bovine growth Hormones have long pressed their governments' to strictly regulate them in the marketplace, which they have done, leading to various European-North American trade disputes over whether the hormone presented a threat to health and safety (Smythe, 2009.)

In theory, however, Ontario's provincial standards would not be limited by our commitments as a trading nation because these standards only apply to (relatively) very small plants that are only producing product for local markets. However, these trade concerns also have a tendency to spill over and exert pressures at other scales, as McMohan (2014) and Dunn (2003) have shown. At the same time, the employment of 'science' as the deciding factor which can essentially end debates about regulatory legitimacy can be seen at the local regulatory level as well, as will be argued in the next chapter.

The last section of this chapter, however, will focus on how these global standards have been impacting regulation in Ontario. To this end, this chapter will finish by connecting these

harmonization initiatives to reports concerning the impacts of regulatory change on-the-ground in Ontario.

Global Standards in Ontario?

The Codex Alimentarius Commission's general principles apply clearly to federally-inspected Canadian plants, but have also been impacting the ways in which Ontario's provincial regulations have evolved. Efforts to accelerate alignment with global and national standards in Ontario have become more deliberate in the past ten years. Consider, for instance, the objectives of the Haines' investigation: "to strengthen public health and safety and business confidence," and make recommendations for "accelerating harmonization with the federal government" (2004, 52). This focus on harmonization, given its orientation towards the promotion of global trade, generally fit with the redefined mission of the Ontario Ministry of Agriculture and Food (made in 1998-99) (Borowy, 2005). Historically, OMAF's role had been to advocate for the interests of the farming community within the Ontario government, but the new business plan stated that the Ministry would "promote value-added agriculture, [and] support increased exports and an improved agriculture and food-trade balance" (OMAF, 1998, 3.) In other words, the role of the ministry was now to "assist Ontario's food system to expand within the global supply of food imports and exports" (Borowy, 2005, 171).

The Ministry of Agriculture has long participated in various joint federal-provincial committees with the intention of integrating food inspection systems across Canada. In turn, this type of partnership has led to several overarching, Ontario-specific policies governing food safety and, following that, specific meat-focused regulations. Among these we have seen the development of a National Meat and Poultry Regulations and Code (NMPAC), the creation of a Food Safety Strategy for Ontario (OFSS), and the establishment of the HACCP Advantage program in Ontario. Over the next few pages I will outline how these programs demonstrate how Ontario's provincial regulatory system, which inspects meat *not* for export, has nonetheless come to be subject to rules intended to facilitate global trade.

Ontario's Food Safety Strategy (OFSS) & the attempt to create a National Meat and Poultry Regulations Code (NMPRC)

In 1998 the province launched a formal review of Ontario's food safety system as a joint effort between various ministries at both the provincial and federal levels (including the Ministry of the Environment, local boards of health, the Canadian Food Inspection Agency and Health Canada (Haines, 2004). This process culminated in a report called the *Ontario Food Safety Strategy* (OFSS), which was not specific to meat inspection though it touched on the regulatory framework maintained by the Meat Inspection Branch.

This strategy reflected a belief that risks posed to food safety are becoming more severe, and that Ontario's mechanisms for protecting public safety had not been "keeping pace" with national and international norms (Haines, 2004). The strategy recommended methods for preventing unsafe food from entering the food chain and was premised on the belief that this would ultimately result in safer food and a more confident public, which would benefit both industry and government.

While the OFSS led to a few specific changes, like a new data management system and a food safety programs for farmers, its most far-reaching impact in terms of meat regulation was to strongly influence the development of the *Food Safety and Quality Act (2001)*. The act was designed as a framework for more specific regulations that would follow - and which would be in line with the new science-based nation-wide approach to food safety. Ontario Regulation 31/05 was one such regulation.

Alongside the OFSS there was also an effort to create a set of National meat safety standards. The goal was to enable the provinces to simply adopt this set of standards as their provincial framework, which would constitute a significant change since each provinces' standards currently differ hugely (Haines, 2004). These efforts began in 1993 when several Ministers expressed their interest in developing "a more integrated, science-based approach" to inspection in general, which eventually culminated in a blueprint for a Canadian Food Inspection System (CFIS) (Haines, 2004, 59). Next, in order to try to implement this plan, the Canadian Food Inspection System Implementation Group (CFISIG) was created in 1997 with the goal of formulating harmonized codes and standards for particular industries that any level of government could use as the basis for its own laws (Forgé, 2009). This group recommended the creation of eight working groups, all dealing with different aspects of food

safety, one of which was a committee to oversee the drafting of a set of National standards for meat processing plants.

Consultations were conducted on the resulting *National Meat and Poultry Regulations and Code* project in 1998 and again in 2000, which included representatives from all the provinces as well as the federal government. In October 2000 the proposed document was approved by the CFISIG (A. Smallwood, Personal Communication, June 3, 2014.). A year later, though, a new committee was struck to determine whether the standards were functionally equivalent to federal standards, likely because this equivalency could be used as a selling point. A working committee with representation from the CFIA, Health Canada and OMAFRA and others formally evaluated the set of standards, and it was decided that they were equivalent to the federal standards, though amendments were made first (A. Smallwood, Personal Communication, June 3, 2014.) However, provinces were under no obligation to implement them – and so most did not. This may have resulted from concerns about how to enact the standards and/or the economic impacts they might have on operators of small facilities (A. Smallwood, Personal Communication, June 3, 2014.) However, the standards – while not widely adopted as Canada's official national standards – were available, and Ontario chose to base O. Reg. 31/05 on them. Many of the requirements outlined in the draft standards are easily identified within Meat Regulation 31/05.

This is not surprising, given that a wide collection of governmental bodies were in favour of the notion of uniform, national standards. Indeed, a second attempt to create such a standard was initiated by the CFIA in 2004, and the following year another working group was established to develop what was now being called the Canadian Meat Hygiene Standard (CMHS). The group included CFIA and OMAF's 'technical experts', as well as two representatives from 'the meat industry' (A. Smallwood, Personal Communication, June 3, 2014.) The goal was to align the standard with the standards of the Codex Alimentarius Commission and, while a draft was released the following year, the entire process came to a sudden end prior to stakeholder consultations in 2008, for unknown reasons (OIMP Presentation Sub-Committee, 2009).

Nevertheless, the desire to further align standards continues. In 2007 three existing federal-provincial food safety-related groups were combined to form the Federal / Provincial /

Territorial Food Safety Committee (FPTFSC) and this group was charged with "coordinating the development of national food safety policy options, implementing initiatives to achieve national food safety goals and priorities, and enhancing accountability" (Forge, 2009). At this time, a national standard has not been confirmed; however, Ontario's food safety regulations are already aligned with a draft set of national regulations.

Hazard Analysis & Critical Control Points (HACCP) and Ontario's HACCP Advantage Program

The Hazard and Critical Control Point (HACCP) food safety assurance system is a globally-recognized food safety assurance audit system that is in place in a variety of industries (meat processing included) in numerous countries around the world. More than a set of standards, HACCP constitutes an approach to crafting a food safety plan that is tailored to a specific business, and it is recommended by the Codex Alimentarius Commission (Panisello et al, 2008). All federally-registered meat processing plants in Canada must HACCP systems in place (Forgé, 2009), as must all federal - and *state*-inspected - meat plants in the US (Taylor, 2008).

HACCP is a unique food safety assurance system for a few reasons. Unlike traditional food safety assurance systems, it asks each processor to identify "the points in its operation at which health risks might occur, then takes steps to monitor and contain those risks" making it a more outcome-based approach that demonstrates flexibility (Taylor, 2008). The system is meant to control physical, chemical and biological hazards, and depend less on testing final products by re-focusing on prevention. There are seven steps to managing food safety risk via the identification of "critical control points." Then, maximum limits can be set at those points, corrective actions can be identified and monitoring/verification procedures can be set up. The last step identifies the centrality of record-keeping to the system (to keep track of monitoring efforts, as well as whatever corrective measures have been taken) (CFIA, 2012).

While the original HACCP approach to hazard minimization was created in the 1960s, it was not until early 1990s that it was applied in the meat processing industry. Its widespread usage was motivated by increasing recognition of the new types of risks associated with a rapidly industrializing food system (Hulebak and Schlosser, 2002). In 1993 the Codex Commission

formally began recommending the application of HACCP, and the USDA formally required it be used in all federal plants in 1996; Canada followed in 2005 (Demortain, 2011).

HACCP has many proponents, some of whom refer to it as "the internationally-accepted approach for assuring the safety of food" and laud its cost effectiveness and ability to address problems quickly (Moy et al, 1994). However, it is important to remember that does not necessarily mean that it is the only effective way of assuring safe food. As an evolving method, it too was subject to political influences; as Demortain says "all along the history of HACCP, a set of international food microbiologists … worked together to defend the principles and the integrity of the approach" and "made sure their guidance [on how to apply HACCP principles] over-rode the many others that appeared in the meantime" (2011, 114). As such, the rise to prominence of HACCP as the most legitimate approach to food safety assurance was not inevitable but can be attributed in part to the work of its proponents.

Given its global prominence and legitimacy it is not surprising that there have been efforts to incorporate it into Ontario's framework. Ontario's 'HACCP Advantage Program' is a provincial initiative that designed to enable – and encourage - more widespread use of the HACCP at provincially-inspected plants, as the CFIA cannot provide HACCP certification to non-federal plants (OIMP, 2009a). It was launched in 2004 and was designed to make it easier for smaller processors to set of HACCP systems by providing both a manual and some 'form plans' which can be filled out to build a HACCP plan (OMAF, 2013b). In Ontario, meat processing plants can voluntarily set up a HACCP system and become 'certified', as it is not yet a requirement for provincial processing businesses. Ontario's adoption of this initiative demonstrates a commitment to moving towards a food safety system that is more aligned with global norms – but it also raises questions.

Even though HACCP has not been strongly promoted to small-scale operators in recent years, apart from giving them the option of utilizing the HACCP Advantage Program, research indicates that they would have reason to be worried if developing a HACCP plan became mandatory. While the applicability of HACCP to small operations is contested, there is evidence that it tends to be much more difficult for operators of smaller plants to implement HACCP (Taylor, 2008; Panisello et al, 1999; Celaya et al, 2007). Debates about the barriers to HACCP implementation in small plants revolve around the costs associated

with the development of a HACCP plan, as these tend to be high because of the time it takes to create the plan and to document the ways in which plant operations adhere to it on a daily basis (Taylor, 2001). Second, implementing a plan requires some experience or expertise with documentation processes and basic familiarity with food science, which many employees at provincial meat plants do not have. Since these plants rarely have the ability to hire new employees specifically to attend to the HACCP plan (as large-scale plants do), this can become a difficult human resources dilemma (Panisello et al, 1999). Some argue that various strategies can be employed to make HACCP more attractive to small businesses (Taylor, 2001) whereas others recommend different approaches to food safety assurance entirely (Kimura, 2012).

Also contributing to the relative disadvantaging of small plants, it is argued, is the fact that HACCP is perfectly designed for large plants, allowing them flexibility and the ability to self-regulate while giving the impression that they are extremely safety-conscious. If we accept the notion that large-scale meat processing entails some fundamental risks (see earlier discussion of risk and legitimation, chapter 3, or DeLind and Howard, 2008; Hassanein, 2011), then claims of large-scale meat processing operations' safety - on account of HACCP adherence - becomes questionable. Food safety assurance systems can provide legitimacy worth competing for, and the difficulties that smaller plants have in adhering to such systems and receiving this boost in legitimacy forms the basis of why regulation tends to impact businesses unevenly.

Altogether, Ontario's turn to HACCP demonstrates another means by which the province is adopting a more harmonized food safety inspection system and, along with it, a more science and risk-based approach. Fundamentally, HACCP is based on the belief that food safety *can* universally be assured on the basis of "an unbiased, independent authority" – for which it appeals to "science" (USDA, 1997). It emphasizes record-keeping and the use of audit technologies, and its proponents claim it is equally effective at any scale. Importantly this does not mean that HACCP is not effective; but it does mean that HACCP is an example of new modes of risk assessment which can promote specific approaches to food safety assurance, and can have differential impacts on small versus larger producers when promoted as the best way to ensure safe food. These realities have, I believe, have contributed to the challenges facing Ontario abattoirs, as will be explored in the next chapter.

Conclusions

This chapter has focused on what I believe to be the two primary factors which have influenced the development of Ontario's current "meat regulations": the politicization of local food scares and more long-standing political pressures to align Ontario's regulations with global ones. First, the development of O. Reg. 31/05 was motivated by several food safety scares that impacted Ontario in the early 2000s, legitimating a new, risk and science-based approach to food safety regulation. The primary event occurred in Aylmer in 2003, a moment pointed to by various stakeholders as a moment that catalyzed regulatory change in the province. With similarly troubling events of water and beef contamination around the same time (in Walkerton, Ontario and with BSE in Alberta), the event in Aylmer gained particular attention despite not resulting in any actual illness or deaths. The perception that Ontario's reputation was "tainted" with the Aylmer scare had far-reaching consequences, in that it provided the legitimacy necessary for the government to align Ontario's regulations with global norms, according to a risk- and science-based approach, for the first time. This parallels the views of Marsden et al. on the core need of the state to "satisfy rising public expectations regarding food safety" as a key driver of regulatory change (2010).

As described above, various global standards and systems had been in place in Canada's federal plants for some time, motivated by Canada's obligation to base national standards on global standards, like the Codex Alimentarius, as a member of the WTO. However, despite the local, intra-provincial focus of Ontario's regulatory system and the fact that provincial authorities are under no such official obligation, efforts to align it with global standards had been ongoing since the mid-1990s. From Ontario Food Safety Standards, to a National Meat and Poultry Code, to the HACCP Advantage program, provincial regulation has been increasingly subject to these global standards.

Since these standards tend to be seen as the best way of ensuring the production of safe meat, it is seen as being in the interest of Ontario's meat industry as a whole – provincial and federal plants included – to implement them as much as possible. After all, due to the nature of public perceptions of risk, as well as international responses to food scares (as demonstrated through Canada's experience with BSE), a food scare in a provincial plant could genuinely damage the reputation of meat from Ontario's federal plants. Thus, since

Ontario has a strong federal meat industry (as detailed in chapter 4), the reasons for which provincial plants must be in line with the "safest" assurance systems is especially great.

Uniform standards across jurisdictions often appears, upon initial consideration, to be a desirable regulatory change, as we have the tendency to assume that these standards must be better at ensuring safe food – and of course, protecting public safety is a key responsibility of the state. But, as this chapter shows, when we look at them more closely we can see that the concerns of export-oriented industry players have contributed to the push to expand these standards to Ontario's local regulatory regime. While there are arguably various reasons for which this type of regulatory uniformity can be beneficial, it is also important to recognize that the motivations behind this shift have been broader than 'food safety protection' alone – and steeped in politics. Trade-related concerns with regulatory uniformity appear to have been significant.

In addition, as will be argued further in the following chapter, there are costs associated with regulatory harmonization, as well as strong reasons for maintaining *distinct* regulatory standards at different scales and jurisdictional levels. Although consistent standards are often presented as a way of "evening the playing field" they can also have the opposite effect, in that they tend to be more difficult for smaller and more locally-oriented abattoir businesses to comply with. The safety risks associated with various scales of meat packing businesses are not necessarily equivalent – but the burdens of costly technical solutions are born by all, including those where risks may be less.

Altogether, it appears as though the provincial government's response to the food scares, as well as the push to harmonize regulations, reflect a desire to present Ontario's food system as *modern* and *safe*. But they also make it clear that Ontario's regulations were *not* only developed with the safety of Ontarians' in mind; broader political factors came into play. However, these decisions are not without impacts. As has been detailed, some scholars (see Taylor, 2008; Panisello et al, 1999) have pointed to the uneven effects HACCP tends to have on smaller businesses, farms and abattoirs among them. Others have noted that such systems of centralized control often have uneven impacts on abattoir businesses operating at different scales (see McMahon, 2007, 2003; Hassanein, 2011; DeLind and Howard, 2008). It is to this topic of impacts that we turn to now.

Chapter 7: Impacts of Regulation on Ontario's Local Abattoirs

Regulation – and, specifically, that which is designed to ensure that all operations within a slaughterhouse are sure to occur safely – was the primary cause of abattoir closures that was revealed through the interview process. However, it was also the major source of contention; not all stakeholders agreed that such regulations were having problematic effects, with some arguing that the turn (in 2001 and 2005, as described above) toward a new approach to regulation has had net benefits in the sector. Over the next several pages, stakeholders' characterizations of the impacts of regulation will be discussed, compared and contrasted, beginning with a short synopsis of what interview data revealed in terms of views on regulation and followed by a discussion of the positive impacts that some stakeholders (a minority of them) felt had arisen as a result of the regulations. Then, the main ways in which regulations were said to cause problems will be explored, and then the discussion will turn to the main points of conflict between the two dominant views on regulation and its impacts. Finally, this section will end with a discussion of the manner through which regulation tends to be discussed by the stakeholders who defend it, as revealed through this research, which it is argued has de-politicizing effects. Finally, the argument is made that this prevents a valuable type of conversation about risk and limits the scope of debate concerning Ontario's local meat system.

Approximately three quarters of the 17 abattoir operators (former and current) who were interviewed identified food safety regulations as the primary factor leading to increasing numbers of abattoir closures. Three additional operators mentioned regulations, stating that they had contributed to some challenges, but argued that other causes were more central to abattoir closures. One operator and one major organization (the Ontario Independent Meat Processors) felt that regulations had not been causing abattoir closures, instead pointing to other causes. Among those who problematized regulation were the operators of many different types of abattoirs – those which provide custom services in addition to engaging in retail, wholesale and the production of various products at various, as well as both red-meat

and poultry operations. However, smaller plants which are more focused on custom slaughter (and have not diversified into other areas) were often experiencing severe challenges (although not all were). However, those who pointed to regulation as an issue included operators who were relatively successful in the business (and, in some cases, would be seen as quite innovative) *as well as* those who had recently closed or thought they were likely to in the not-so-distant future.

Regulation's Positive Impacts?

This section analyzes the arguments made by a small group of stakeholders who discounted the role of regulation as a cause of abattoir closures. This group was made up of two representatives of the Ontario Independent Meat Processors (OIMP), Judy and Rita, and one abattoir operator, Spencer. As noted above, three additional operators did not identify regulations as the *central* barrier leading to abattoir closures, but did bring up this topic as a secondary barrier; I will not be focused on representing their views here because they did not offer strong opinions, either positive or negative. Additionally, and perhaps not surprisingly, OMAF defends the nature of the inspection framework. The representative of OMAF whom I spoke did not identify regulation as a cause of abattoir decline, but instead referred me to the OIMP and the list of causes of closures they have listed, which did not include provincial regulation (Interview: Nathan). Additionally, several reports and documents released by OMAF also underscore their view that the new regulatory system has benefitted the majority of processors. For example, a 2013 discussion paper reads, "meat plant operators have indicated significant benefits of being licensed under the Meat Regulation" which are said to include help identifying new efficiencies, access to new markets and protection of their brand reputation (OMAF, 2013).

Overall, these stakeholders defend the current provincial regulatory regime by arguing that while some operators may have encountered difficulties with the regulatory regime, it is nevertheless important, primarily because it a) better protects food safety, and b) improves the reputation of the provincial meat industry. These stakeholders tend to also argue that the turn towards a more 'modern and science-based regulation,' like O. Reg. 31/05, is inevitable (the impacts of which will be discussed at the end of this chapter). In part, these stakeholders demonstrated a desire to prove that regulation did not *have* to have negative impacts on

operators, as operators could choose to adapt differently to it; and that, overall, the mode of regulation was justifiable on the basis of its food safety benefits.

These stakeholders did, in some minor respects, recognize the possibility that regulations have at times been problematic. Judy and Rita did so by mentioning that in the event of inspector-operator disagreements, OIMP does try to help operators to "speak with knowledge …of their rights within the regulatory framework … so they have the ability to question at any point 'why do I need this'?" Spencer noted that there *is* a need to "identify where there is *unnecessary* regulation change or policy change," implying that there are potentially elements of the framework that are not needed. However, these stakeholders chose to emphasize the ways in which operators need to more effectively adapt to the new regulatory environment.

These stakeholders focused on the capacity of a more rigorous regulatory regime to improve the reputation of the sector in order to better convince larger buyers to accept provincial meat. They asserted that the negative reputation that the sector has developed in recent years has resulted in the closures of certain markets to provincially-inspected meat (i.e. supermarkets and institutions) (Interview: Judy and Rita; Interview, Spencer). Furthermore, by boosting the degree to which the provincial inspection system is seen to be rigorous, they argue, the more markets will open up to those who market provincially-inspected meat.

For Spencer, the decline in the reputation of Ontario's provincial inspection service could be attributed to the Aylmer Meat Plant scandal, which he implied had been a result of lax regulation. Given that many of his large customers stopped buying provincial meat at that point, the logical course of action, he argued, was to improve food safety assurance systems so that the "perceived difference" between provincial and federal plants could be counter-acted. He emphasized the notion that provincial rules should appear as stringent as federal rules as well.

> "…before 2003, we used to do a lot of business with retail chain stores, as well as the broader public sector. But that year Alymer Meat Packers was convicted of dragging deadstock into their meat plant. The reaction of the industry after that event was to say "Ok, we're going to go federal only," which seemed like a viable way for them to think they're mitigating the risk because there was some kind of perceived difference between federal and provincial meat inspection. And so we lost business with about 6

> IGA stores, and we also lost business with the broader public sector. We were doing business with correctional facilities in our market area too…"

Judy and Rita, representatives of the OIMP, concurred and argued that the 2005 regulatory changes have *already* been benefiting small businesses.

> They have strengthened the food safety system in [local abattoirs], and the quality and innovative products that they're producing. We actually see those people regaining some marketplace in their local retail grocery stores. Also, through the broader public sector we have seen organizations change their procurement schedules which will allow for provincially inspected product to get into more broader public sector facilities.

Some of their current initiatives are focused on improving local purchasing through the broader public sector, and they cited several examples of operators having re-established contracts with public sector institutions and/or smaller supermarket chains (Judy and Rita, Interview). OMAF and the OIMP point to O. Reg. 31/05 having improved the reputation of the entire sector in written documents, as well. For instance, a discussion paper released by OMAF last year stated that "Many meat plant operators recognize that food safety adds value to their brand and protects their brand reputation" (OMAF, Discussion Paper, 2013).

Spencer also conveyed the belief that rules will change no matter what we do (reflecting a belief that the current regulatory regime is inevitable) and so we should focus on helping operators adapt to a new, higher-cost business. He said,

> I think there are going to be constantly changing regulations as we go forward and I think as long as the federal system moves, and the world food safety system moves, the provincial food safety system has to move as well…. to me, increasing or changing constantly regulatons is inevitable and it has to happen. So it's whether the operators say, "ok our costs are up, so we charge more" – or not. To me that's pretty simple.

This group of stakeholders instead identified three ways in which abattoir operators should adjust to new conditions in the local meat industry, which they thought were partly stemming from regulatory change. These ways of adapting – which included making regular and consistent investments, raising prices charged for customer services, and expanding businesses or moving into value-added production – were described in detail in the final section of chapter 4. Indeed, according to this small group of stakeholders, operators' failures to do these things is what has, in fact, caused widespread closures – not regulation.

These are, to be sure, helpful pieces of business planning advice and have very likely contributed to the success of at least some abattoir operators. However, other stakeholders offered up different – and sometimes conflicting – evidence concerning the impacts they felt that the shift in regulation has had. These arguments will be discussed now.

Regulation's Negative Impacts

The majority of operators offered up a variety of reasons why the content of regulations and their mode of enforcement had been impacting their capacities, and *desires*, to continue running their businesses, while other stakeholders (farmers and representatives of advocacy groups) relayed issues with regulations that they had heard (though these will not be the focus of this section). Many former operators pointed to specific regulations or occurrences that they felt had been unreasonable, unnecessarily costly or irrational, and these will be discussed below.

Audits

Through the interview process the "audit" was the primary medium through which operators reportedly came up against challenging regulations. As discussed in chapter 6, audits were introduced in Ontario in 1995 as a way of regularly checking compliance and are now conducted in abattoirs by OMAF veterinarians (Haines, 2004). Inspectors, of course, also have the right to request changes to infrastructure or processes at any time, but operators reported that most major requests tend to be made by auditors. Operators rooted some of their concerns in the techniques entailed by the audit itself.

First, operators felt that audits promoted a tightly controlled and unfair mode of communication. According to interviewees, auditors generally do not discuss their concerns directly with the operator of the plant they are auditing, either while conducting the audit or afterwards. Instead, audit reports are given to the local inspector (and/or a supervisor within the branch) to discuss with the operator following the audit. Operators claim that the move toward auditing has led to far less discussion because of the way that it has shifted the power structure and eliminated direct conversation with the person critiquing ones' business. Hiram made this assertion:

> The process is a good deal more lopsided because what you get is you got somebody who comes in one day of the year, someone you've never seen before, right? They do an interview, ask a bunch of questions, look around, fill out a form, 3 weeks later you get your list says you need to do ‘this, this this and this.

The fact that auditors were not part of a discussion about their own findings struck some operators as disrespectful.

Additionally, the annual audit creates a second level of inspection/enforcement, conducted by a different group of individuals who do not know the plant or operator in question, which seems to have opened up more opportunities for differing and conflicting advice. Conflicts between inspectors and auditors (and between auditors, as a different person may visit each time an audit is conducted) were reported. As Peter, a former operator, said,

> [The audit report] is from the eyes of the particular auditor who's doing the audit. A different auditor comes in and all of a sudden.... there are three or four or five items here that didn't show up at all, I wonder why?... Different auditors look at things with different eyes and some say "I don't see this as an issue".

Lastly, there was a strong feeling expressed that auditors must *always* find something that is wrong. The predominant feeling was that no matter how much you invest, there will always be something new the next year. Hiram expressed a feeling that requested changes were never-ending, saying “they're paying this guy so he's not going to come and say "everything's fine!" They always find something...And sometimes it's bigger than other times” (Interview: Hiram.) Jerry expressed a similar view:

> They come and do an audit...well they're never happy, there's always something they find wrong. They want that fixed, so I fix it. We've put lots of money back into it, every year we put lots of money back into it. But there's so many plants where they just can't... they get so far behind.
> - Jerry, current operator

Indeed, these observations reinforce arguments some scholars have made about audits. For example, Dunn asserts that HACCP (another type of audit) encourages what she calls ‘hypervigilance’:

> The claim to ‘continuous improvement’ which is contained in audit systems requires a continuous cycle of looking for problems, finding them and then setting a new monitoring point (or ‘critical control point’) which in turn generates a new sub-process of looking for problems” (Dunn, 2006, 48/49).

By way of the audit, she says, new sources of bacteria are constantly being found, followed by new ways of addressing them; this creates comfort and makes it look like regulators are being highly responsive, while also helping businesses to protect themselves against critique (Dunn, 2006). Indeed, operators' comments reinforce the idea that "there is always more bacteria to find", raising questions about whether we can (or should) expect operators to bear the associated costs.

Essentially, the place of the audit in regulation is increasingly prominent today in Ontario, as in many other jurisdictions. While it may be effective, it also comes with certain costs, both in terms of how demands tend to be made of operators, and what these demands tend to look like over time. The additional tendency for audits to require an 'unending' stream of changes seems unsustainable for resource-strapped local abattoir operators. The costs associated with these demands were the biggest challenge identified by most operators.

Costly Infrastructure Investments

At the core of operators' comments on the effects of food safety standards was that the regulations require costly (and unaffordable) investments, primarily in built infrastructure. Operator interviewees more often brought up how required investments were very expensive relative to their incomes, as well as the notion that the value of their businesses was not increasing as they invested to maintain compliance. Many added that the changes themselves seemed to require cosmetic changes, while others claimed that the specific inspector or auditor requesting infrastructure investments was interpreting the regulations in a way that not all inspectors/auditors did. In other words, many regulatory decisions are made at the discretion of the auditors/inspectors, operators asserted. Of course, this flexibility can benefit operators; but in general, operators cited circumstances when inspectors' discretion had resulted in decisions they found unfair and costly. Overall, discussions of costs in combination with the feeling that many regulations were not significantly impacting food safety constituted the frame most operators used to discuss why and how regulation is a problem for them.

Certain types of built infrastructure adjustments came up again and again during the interviews. The need for different types of surface coverings for walls, counters and floors were common, as was the addition of new facilities for employees, such as more 'official'

change rooms. As well, requests to replace or add to infrastructure (such as replacing wooden shelving or adding "coving" - a connecting barrier between walls and floors) were common as were changes to facilitate one-directional product-flow, like by adding an additional processing room for ready-to-eat products.

This meant that several sections of O. Reg. 31/05 were brought up often, such as Part IV, which is focused on construction materials, lighting, drainage, receiving and shipping, change rooms, refrigeration facilities and equipment, among others. To provide a glimpse into the challenges perceived by operators in terms of built infrastructure, I will outline two types of issues that were identified by multiple interviewees: the requirement that wooden surfaces and coverings be completely eliminated from abattoirs, and the requirement that coving be installed in all slaughter rooms.

Several operators mentioned the presence of wood – even as shelving in dry storage rooms or as the frame around a chalkboard in an office – having been identified as a problem. These requests would have originated in section 16 or section 31 of O. Reg. 31/05.

Section 16 reads:

> The floors, ceilings, doors and walls of rooms or areas in a meat plant shall be made of hard, corrosion-resistant, smooth material that is constructed to enable effective cleaning and that is impervious to moisture (Section 2).

It goes on to explain that this should be the case in any room where animals are slaughtered or carcasses dressed; where any parts of carcasses are handled, received, processed, shipped, labelled or stored; where any inedible materials are handled; where washrooms are located; or where salted hides are stored (if in the same building where other meat is handled.)

Then, section 31 states:

(3) Food Contact surfaces in a meat plant shall be,

> (a) non-absorbent, unaffected by food and free of constituents that are likely to contaminate or other adversely affect the quality of carcasses, parts of carcasses, meat products and ingredients;
> (b) designed and constructed in a manner and using material that minimize the adherence of food;
> (c) smooth and free from pitting, cracks or chipping
> (d) free of sharp internal angles, corners in which a meat product or part of a meat product could be trapped, crevices and unnecessary ridges or indentations; and
> (e) capable of withstanding repeated cleaning and sanitizing.

These specifications appear reasonable, but they are made more specific in the regulatory guidelines (which change much more frequently than the regulation itself). While no mention of wood is made in the regulations it *is* identified as a material that can be prone to the

‘water, wear, and chipping/cracking’ mentioned above in the accompanying policy guidelines.

Peter, a former abattoir operator, encountered issues with wood in a variety of areas: he had a wooden desk in his office area (which *was* on the far side of the area in which he wrapped meat), a steel shovel with a wooden handle (used for cleaning up the scraps from the slaughter room), and wooden shelving in his cooler. He felt strongly that this outright “ban” on wood was being applied to far more aspects of his business than made sense, especially since auditors and/or inspectors sometimes claimed these wooden objects were unacceptable while at other times, they were less concerned. Regarding the shovel, he said

> Plastic won't hold up, they're not durable, and aluminum wear out in no time on cement, but steel will hold up. But they would not allow us to us that grain shovel because the section from the handle down to the shovel was a wooden handle. Because it had wood we weren't allowed to have it in there...
>
> - Peter, former operator

Hiram, a former poultry abattoir operator, also brought up the wood issue, specifically speaking to rules stating that it could not be used in dry rooms. He explained,

> Years and years ago they wanted all the wood out… They used to use wood chopping blocks ...but now you had to use this plastic stuff which, over the years they've just wanted in more places. The last one was in dry storage - places where you're storing your packaging and your spices. They wanted you to take all the wood out and put in stainless steel. Well that is expensive! And for no purpose. Actually it's been very controversial because there's been a lot of research done that shows that these wood surfaces are acutally better than the plastic over the long run … the plastic is good when it's new but you soon get it chopped up then it's much worse than the wood is.

Both cited a lack of clarity surrounding where and when wood could be used, and also a belief that some of the limitations on wood are unreasonable.

In 2010, the use of wood was clarified by OMAF in response to requests made by an ad-hoc committee started by members of the Ontario Federation of Agriculture called the Committee of Concerned Abattoir Operators. This committee submitted a series of formal complaints, referencing the requirement that wood be eliminated from all parts of a meat plant (among many other topics) (Interview: Hiram). The General Manager of the Meat Inspection program responded, explaining that following the analysis of over 30 scientific documents, they determined that limits on the use of wood should differ between plants producing “ready

to eat" product and those not doing so (OMAF, 2010). Plants producing such products could therefore not use wood anywhere, even if the wood was "sealed and waterproofed with cleanable paint." But if no "ready to eat" products were being made wood could be used in dry storage areas, within limits. Thus, this appeal to scientific studies was the chosen (and effective) way of ending these cost-related debates about the use of wood. It did not, however, appear to address the feeling of many operators that the use of wood seemed inconsistent and unfair (importantly, many had not heard of this more specific information about when/where wood had been deemed acceptable, pointing to an additional communications barrier.)

The second controversial requirement was to install "coving" or "leak-proof joints." This piece of connecting plastic was intended to prevent water from getting behind a wall and fostering the growth of microorganisms, and reportedly became a commonly required change. Currently, however, the relevant section of the regulation is *flexible* as to whether coving must be used to solve problems associated with leakage. It reads, "the floors shall be joined to the walls using leak-proof joints that are coved or shall be joined to the walls in any other manner that will allow the joints to be readily and effectively cleaned" (O. Reg 31/05, Section 16 (3)).

Unfortunately, it was not always so clear. While coving was never absolutely required, it seems as though a number of inspectors were under the assumption that it was. Unfortunately, it seems as though the coving tended to make the issue of moisture in walls worse than it already was, and operators were required to invest in coving that was later determined to be unnecessary. Much to their chagrin, some operators realized before installing the coving that it was an ill-conceived idea but were nonetheless forced to implement it at their own expense. Hiram outlined the situation as he experienced it:

> At some point they decided that there needed to be a seal between the floor and the walls. It's very common to have a cement floor [in an abattoir], so they came up with this coving idea. They made everybody put in cove molding [between the bottom of the wall and the floor] and you caulk it in on both sides and "voila!" It's waterproof. The problem was that any moisture that got in behind there was trapped...And it just rotted out the walls underneath...so they put the things in and 3 years later they have to rip the wall out again
>
> - Hiram, former poultry plant operator and farmer

Peter had a similar experience, saying that he had to put on coving "with the last major renovation .... but the water runs from in behind the wall, takes everything down in behind...."

According to an interviewee who had been actively involved with the Ad Hoc committee, members of the committee had tried to support one another in *resisting* various inspectors' insistence that they install coving over the course of several years. Some encouraged one another to demand that meat inspection staff cover their costs should the coving cause the walls to rot, as a way of trying to avoid having to install the coving, which reportedly was effective in some cases. When the same OFA committee mentioned "coving" in their letter to OMAF, the response they received was that coving is clearly one option of many, as stated in the regulation (OMAF, 2010.) (However, the regulation was soon changed to make this more clear.)

Both the wood surface and the coving examples demonstrate that, at times, the line between a recommendation and a requirement, or between an acceptable usage of a material and an unacceptable one, are unclear and open to interpretation. In addition, the mixed messages and conflicting information surrounding the precise regulatory requirements make it clear how easy it is for information and policy norms to spread unevenly across a province as large as Ontario.

These results parallel the findings of the 2011 survey conducted by the Ontario Federation of Agriculture, initiated by an Adhoc committee called the Committee of Concerned Abattoir Operators. The survey found that 91% of respondents felt that regulations required investments in cosmetic solutions, and 86% felt that upgrades made to maintain compliance with the regulations had not meaningfully contributed to the value of their businesses (OFA, 2011). However, as mentioned, this survey also included Free-Standing Meat Plant operators (making it less reflective of abattoir operators' views alone), only had a 25% response rate and for these reasons (as well as others) it was criticized by the OIMP.

Unpredictable Time-frames

An important element to the issue of costly investments relates to the timeframe for changes. Essentially, interviewees reported that often, it was not simply the absolute cost of a regulatory requirement that posed the problem; it was the fact that various demands were being made successively, with no information provided about when the next one would be made. Financial planning felt near impossible under such circumstances, and operators found it more difficult to justify the need for a new loan when it is needed suddenly and follows existing loans. All in all, an unpredictable system of regulation made financing capital investments even more difficult for many operators.

One operator, Sam, who had recently stopped conducting slaughter and moved into further processing activities, expressed the feeling that there is always something new coming up, but one cannot predict what it will be. He said, "you can't really say 'everything is done' because there are always new things coming up, changes, it's never-ending..."

Some new regulatory requirements did have "phase-in periods" specified (usually applicable to the 4 years between 2005 and 2009), but slaughter plants were generally the very first type of plant to have to adopt a new rule, with Free-Standing Meat Plants doing less-risky activities being able to wait several years before meeting them. But inspectors can also be flexible in terms of how and when they enforce new requirements, as part of a generalized effort to focus on "outcome-based" regulation (Interview: Nathan, OMAF representative). The issue, however, seems to have been that operators were not informed of *when* they may actually be required to fully comply with the written policy. While they may have a sense of the many things that the Inspection Branch would ideally like them to do, they do not know when these things will become imperative. So, while flexible timing certainly seems important and helpful for operators, it comes with additional challenges. Additionally, it seems that members of the inspection service are under no obligation to share such information with the operators themselves.

Without an idea of what will be deemed important next time, operators take on a permanent belief that the future is 'unknown' and have a lot of trouble planning for the future. Larry, an operator, said

> Your building's not worth one cent more after you put the money in than it was before

> you started. So you're putting all this money in... just to do the same thing. There's no logical explanation why you should, especially because that's just for today – tomorrow they're gonna ask you to do something else.

His views echo a sentiment reflected by numerous interviewees about not knowing what would be next, and when it would be required.

Intensive Documentation

Some interviewees also pointed to the labour costs incurred as a result of documentation requirements, which they had noticed dramatically increase following the new regulatory requirements. Operators contended that the paperwork was repetitive; that it often seemed unnecessary or disconnected from real food safety outcomes; and that it was incompatible with scale of their operation. OFA survey results paralleled these findings, indicating that 94% of respondents found daily and weekly paperwork unnecessary and repetitive (OFA, 2011).

While many simply said that documentation was "burdensome" in general, others spoke about economic impacts more specifically. Mike explained that "one of us fills out those charts there at least an hour a day, probably 1.5 hours… It all adds up. Over the course of the year its thousands of dollars."

Mike recounted finding the paperwork very inefficient, saying

> There's duplicate paperwork.... Like you might have one product that's a fermented product but now they're asking us to put all our fermented products through a 'cook' step so we have better pathogen control. So you have to fill out all the paperwork for a fermented product, but now that it's going through a cook step it's considered a cooked product too, so you fill out all the same information on those forms.
> - Mike, Operator, South-Western Ontario

Others emphasized that they felt more documentation steps were always being added, including Rick, who operates a small customer slaughter plant with no processing or retail component.

> There's always a little more. A lot of paperwork.....every year, we have a new sheet that we have to check off...there are daily sheets, monthly sheets, temperatures, things like that.... which we did have in the past but there's more and more and more as it's coming on…
> - Rick, Eastern Ontario

Then, other operators claimed that other work tends to take longer because of the fact that documentation processes were not designed to be easily implemented by small plants.

> The way they set up [record-keeping systems] makes it very difficult for a small operator… It's sort of set up for big plants where someone would be doing it all...so you'd have a half a dozen employees here doing this process [cutting or something], and somebody is making all the records as you go along.... And if you don't have a bunch of people doing it, what you've basically gotta do is do one process and then go over and do the books for it, record the temperatures and everything. And then do the next step and then go over and do the books... So you're back and forth and you're washing your hands and it's just a pain. It's just a matter of designing a protocol that allows one or two people to get this job done in reasonable dispatch without being bogged down by the temperature, the paper work on it.
> - Hiram, former operator

Altogether, increasingly time-consuming record-keeping activities came up often, though not as frequently as infrastructure-related changes required by the new regulations. However, it is imperative to note that operators did not only cite financial limitations that when asked why they had closed their abattoirs, or why they would consider doing so; they also spoke to how they felt being subject to the new set of regulations

Stress

As mentioned, when asked why they had closed most former operators talked about their declining finances and the unachievable investments they were required to make. But quite often, words like “frustration” and “stress” were also frequently used. The significance of relationships between authority figures in the meat inspection system and abattoir operators cannot be understated. Regulations that seem indiscriminately created or applied appear to play a significant role in operators’ decisions to stay open or close, as they tend to make operators feel targeted and disrespected.

Jenny, a farmer, summarized the views of operators in a way that resonated with feedback I heard throughout the interview process. When asked about what might be challenging operators, Jenny said,

> …when you're doing that kind of work – and I know I wouldn't be able to deal with it, it's very hard to always be around death - and then on top of it you have the added stress of being ‘under the gauntlet’, so to speak - I think that just turns people off it...

She starts by alluding to how abattoir work is fundamentally difficult on multiple levels. Bruce (a former operator) reinforced this view, saying "well, it's an ugly job. Nobody wants to come over and visit you while you're slaughtering animals and there's blood everywhere. And they feel very isolated, I think." Indeed, when you start with a fundamentally difficult job it seems that the stresses add up especially quickly.

Jenny also refers to the emotional exhaustion that many interviewees also attributed to the current regulatory regime. Jenny's reference to being "under the gauntlet" was also brought up often. Operators felt that they could easily be closed down at any moment – and that there would be nothing they could do about it. This combination of being unable to precisely predict what would be required of them next (as discussed above) and a feeling of powerlessness in the face of an unfair request, tended to elicit insecurity among interviewees. The "feeling of always doing something wrong" came up many times, as did the idea that stress levels contributed to the decision to close the business. Finally, the perception that rules are unreasonable seemed to play into these emotional pressures. Being subjected to what operators often perceived to be irrational rules tended to cause them to feel disrespected.

Albert said that the operators he used to know thought of it as "harassment," while Pamela, an advocate for local abattoirs, claimed that many operators are afraid to speak out when the find something is unfair, worrying that questioning the authorities could hurt their businesses in the long run. [2] She said, "a lot of the abattoir owners are, understandably, hesitant to speak out because it could come back to bite 'em. You know, that's reality..."

Overall, infrastructure requirements – which were often characterized as unpredictable, costly and sometimes illogical – were the most significant way in which regulations were cited by operators as having negative impacts on their capacities. Some specific elements of the audit method, including a tendency towards what is seen as unfair modes of communication, conflicting advice from different auditors, and requirements for continuous

[2] There are various official mechanisms in place to help operators advocate for themselves. OMAF has a formal "conflict resolution" process in place, and the OIMP has a regulation specialist who is available to help empower industry with knowledge and "equip them with their rights within that regulatory framework so they can actually have a discussion" (Interview: Judy). However several operators still expressed not feeling confident raising concerns.

improvement. Importantly, many operators' comments about the economic or financial impacts of regulatory requirements were made alongside other comments about stress or insecurity, powerlessness or lack of control, as well as a statement about how this led them to want to quit the business.

So how are we to make sense of these highly conflictual reports regarding regulations' impacts? Before going any further it is important to highlight the main points of conflict between stakeholders interviewed for this project. In addition to explaining how regulation was impacting them negatively, many operators also ended up offering points of view which counteracted the claims made by the small group of stakeholders in favour of regulation. This contending views will be elaborated upon here.

Debates on the Role of Regulation in Abattoir Closures

The first part of this chapter summarized the main points made by stakeholders who contended that provincial regulations are not to blame for abattoir closures; instead, they proposed preventing abattoir closures by encouraging abattoir operators to adapt to a changing industry. Many operators, however, offered several reasons as to why this type of adaptation is not always possible. Overall, the solutions proposed by stakeholders who defend the regulatory regime seemed to neglect some of the constraints that most operators face, and very quickly tend to shift the discussion away from questions about regulatory-related constraints. As will be argued in the following section, the primary ways of defending the regulatory system in Ontario – by emphasizing its origins in science-based risk assessment and its overall inevitability – de-politicizes the regulatory regime and takes away from the capacity of operators (and others) to criticize regulations.

I will begin by bringing forward some opposing viewpoints in relation to three of the main arguments made by those in favour of Ontario's current regulatory system: the claim that abattoir operators should raise prices, the claim that abattoirs should expand or move into "value-added" processing, and the claim that the 'improved reputation' for Ontario meat (resulting from the more stringent regulation) will ultimately help all Ontario abattoirs.

Opposing the view that abattoir closures can be addressed if operators simply increase their prices, numerous interviewees (both operators and farmers) emphasized that operators are

limited by the fact that the farmers who make up their customer base are already 'feeling the financial crunch.' Operators seemed very sensitive to the fact that price increases *could* cause their farmer-customers to go out of business or stop using provincial abattoirs (i.e. sell their livestock to federally-inspected meat packing companies), and said this made them hesitant to raise prices since above all else, they need customers. At the same time, other farmers and operators recognized that in some cases, farmers seem unaware of abattoir operators' constraints – and that this needs to change. All those whom I interviewed recognized that farmers need to consider raising their own prices in cases where their abattoir has had to raise theirs, but that abattoirs do need to be careful not to raise their prices any more than absolutely necessary.

Betty, an operator, emphasized that "passing costs onto the farmer" has limits:

> I understand that every business has costs that have to do with fixing up the business and whatever, but I think the big thing here is you're governed by the government who says "you've gotta do this and this and this" - and pass that cost onto the farmer. That doesn't really work...The worst thing with our business is we have to try to keep the costs down because that reflects on the farmer. And how the farmer can sell [at those prices]?!

Indeed, the assumption at play here is that farmers are, in turn, limited by what consumers of local meat are willing to pay. Of course, the price a farmer is able to charge, as well as the characteristics a consumer is willing to pay for – along with the premium they are willing to pay – are complex questions that are beyond the scope of this thesis. However, research does indicate that price is a significant factor influencing the consumption of local food, including local meat. Studies (see Donhaer, 2012 or Chang et al., 2013) indicate that consumers are generally willing to pay a small premium for local products and that this amount increases the more the customer is already inclined towards direct marketing outlets and/or supporting local farmers. But this willingness only lasts to a point, which in turn depends on various factors, including the priorities of consumers, the additional value seen in the product, and their financial capacities. Thus, it is reasonable to assume that farmers are limited, to some extent, in their abilities to raise their prices on meat without negatively impacting sales.

Generally, interviewees seemed to view the question of price selection as a complex one that must be negotiated between abattoirs and farmers. Cost increases can push farmers out of business, but surely are still needed to some extent. Thus, the only fair way to discuss pricing

is in a way that considers the challenges facing both abattoir operators and farmers concurrently. However, discussions with *some* stakeholders, and especially the OIMP, tended to focus on the needs of abattoir operators as separate from the needs of farmers.

The second claim, which is that a lack of innovation and business expansion is one of the main reasons for which abattoirs are closing was also disputed by the majority of interviewees. On one level, is difficult to refute the notion that engaging in higher value activities can generate more revenue for a business and help it to survive. Indeed, among the more successful operators that I spoke with were those who engaged in retail sales and/or other value-added processing. But at the same time, interviewees brought up several points that put this claim into question. First, I heard from operators who had been quite innovative and active in pursuing new projects (i.e. developing new products and service and investing often in their businesses) but still struggled. Secondly, it seems as though this call for innovation, expansion and diversification into value-added production often actually presents operators with new sets of challenges, as it can be hard to combine custom slaughter with some of these activities, especially in a smaller plant. As a result, this sometimes leads to operations transitioning entirely into meat processing (and not slaughter plants), which ultimately hurts farmers, who still consistently require custom slaughter services.

As mentioned, several of the operators interviewed reported having "done all the right things" - but were still troubled by regulation and struggled to remain operational. One such individual was Jim, who has been running his abattoir and butcher shop for over 30 years. He operates a retail shop, sells wholesale and offers custom slaughter services, as well as providing curing, smoking, vacuum-packing and custom-labelling services. He has invested significantly in renovations and tried hard to 'keep up' with the shift towards a more 'modern' food system, saying that he has "taken a lot of courses on HACCP and GMPs and the like, so I'm probably more 'up' on this stuff than lots of other operators…" Despite the fact that Jim produces value-added products and has expanded the business consistently, he reports struggling with regulation:

> …after dealing with the government for so many years, it doesn't matter what you do, they're never happy. You just lose that drive and lose that ambition. And it's like "I don't really give a s--t anymore." I used to try and work with them … I used to bend over backwards; we were like partners... But not anymore. I used to spend a week getting everybody ready for the audits but I just don't care anymore because it doesn't

> matter what you do, they never have a good thing to say about anything! We used to get Triple A ratings – we were one of the top plants in Ontario – but it didn't matter.

Jim's experience, of course, does not mean that such strategies are ineffective for all operators; however, it does raise the question as to whether these strategies should be presented as a "solution" to abattoir closures that can work for most (or all) operators.

Secondly, operators reported challenges associated with making value-added products alongside slaughter and regular processing activities (Interviews: Larry, Mike), while others reported having eliminated the slaughter portion of their business as they pursued this strategy towards re-invigorating the business (Interviews: Sam). This is because space restrictions, rooted in food safety rules, often make it difficult to engage in different activities within the same space. Traditionally, most rural plants were not large enough to have separate rooms for each of these activities, but with a time gap and a 'wash-down' they could engage in different practices (such as meat cutting and ready-to-eat product making) in the same space. With O. Reg. 31/05, many operators were informed that this was no longer an option (although exemptions have been made since) (Interview: Mike). It seems that in some cases, it has just been easier for operators to eliminate the slaughter services altogether, since they tend to be the least profitable of common activities (Interview: Sam, also see Pinkney et al., 2013).

The elimination of custom slaughter service provision is a problem for farmers who require the slaughter and cutting services most desperately; the ability to have bacon smoked, for instance, is appreciated but not essential (as if it is not available at the abattoir they can take the meat to a different smoking house.) Referring to an example of this transition in her neighbourhood, Gloria (a farmer and representative of the National Farmers Union) explained that when an abattoir moves away from custom slaughter and into processing exclusively, "is fine for their business, but it's not so fine for farmers …"

Finally, the third point that was contested by operators' accounts was the notion that regulation is valuable – and has already prompted positive changes – in convincing retailers (such as grocery store chains) to buy from provincial meat plants. Some operators contested this claim by discussing how they have not seen new markets open up to the as a result of the regulatory changes made in 2005. For example, Albert explained that he cannot sell to his local grocery store, "even though I'm selling in Ontario and I'm meeting all the regulations.

There's no regulatory reason why I can't do that. There's just a competitive reason why I can't do that. So the problem is that we have to start a whole second distribution food chain…"

Albert also pointed out that it is not just a perception that provincial plans have weaker food safety standards that prevents larger retailers from sourcing Ontario meat; instead, it has to do with retailers' preferences for suppliers that can supply an entire grocery store chain. Company policies tend to dictate "federal meat-only" policies because provincially-inspected producers usually cannot provide for as large a network of stores, and distributed through a centralized system (which also likely requires that products cross provincial borders, which is not possible with provincially-inspected meat) (Carter-Whitney, 2008). In this sense, the barriers to institutional meat procurement go far beyond the reputation of provincial inspection, and it is difficult to say how much of a difference an "improved reputation" will make in terms of expanding these markets.

Additionally, the potential benefits of an improved reputation for Ontario meat would not be experienced by all stakeholders in the industry equally. Indeed, only *some* provincially-regulated abattoirs and Free-Standing Meat Plants could even consider selling to these larger buyers; others don't have nearly the production capacity to demand this type of market (or to be within reach of being able to provide that much product). This shows that the potential benefits of stringent and 'modern' food safety rules are born unequally by different members of this industry, as well as the costs.

We can draw several conclusions from these debates. First, some of the ways of adapting to changes in the industry which were recommended tend to neglect some important limitations that face operators. Two of the most significant limitations centre on the impacts of price increases on local farmers, and the regulatory challenges that often arise as operators try to expand value-added production while maintaining custom slaughter service. As well, the tendency for large retailers to avoid purchasing local meat for reasons far beyond the reputation of Ontario meat is another important consideration.

Overall, this research has shown that the solutions proposed by stakeholders who defend the regulatory regime neglect some of the real constraints that most operators face, and too quickly shift the discussion away from questions about such constraints. Furthermore, this chapter has reinforced the point, made other scholarly studies focused on other jurisdictions

(see DeLind and Howard, 2008; Hassassein, 2011), that the imposition of a standardized set of food safety regulations tends to pose challenges for smaller and/or more locally-oriented businesses. In Ontario, food safety regulations governing local meat plants have been posing challenges for many abattoir operators in the province. At the same time, these impacts are not widely recognized by some key stakeholders, as this chapter has demonstrated.

One way in which attention is actively shifted away from regulatory-related constraints, as will be argued in the following section, relates to the use of particular discursive mechanisms which de-politicize regulation. As will be argued, the way that regulation has been de-politicized effectively limits the capacity of abattoir operators to contest the rules they are subject to, and leads to less critical conversations about regulation in Ontario.

The Perils of De-Politicizing Meat Regulations

With all of this in mind, it becomes clear that despite clear themes in terms of how stakeholders discuss regulatory impacts, there is still a lot of contestation on this topic. At the same time, debates about the importance of promoting local food economies continue – but separately. Regulation continues to be seen as related *only* to the protection of public safety and not to growing gaps in capacity in local food systems. Generally speaking, food safety is promoted as the only legitimate grounds for discussing meat regulation. I assert that this relates to how regulation is discussed and debated in a way that reinforces the notion that it is apolitical. Over the next several pages, the way in which this occurs will first be discussed. To finish, it is argued that in recognizing the political nature of regulation, a broader context for regulatory discussions that consider a wide variety of important and related values – such as ecological health, rural communities, and local food system capacity – could be created.

Through this research process, including stakeholder interviews and the analysis of government and industry documentation, food safety regulation was consistently and effectively de-politicized. Two ways of representing regulation had the effect of portraying it as apolitical and thus, defending it in its current form: appeals to the scientific basis of the regulation itself, and representations of the regulations as inevitable. These techniques were used both by the Ministry of Agriculture and Food and the Ontario Independent Meat Processors (OIMP).

As mentioned above, food science tends to be consistently invoked in order to legitimate food safety regulations. During interviews with representatives of OMAF and the OIMP, as well as in analyzing documents released by each group, I noticed consistent efforts to refer to the scientific origins of the regulations. While both groups consistently note that "industry consultation" was a part of the development process as well, the fact that regulations were designed to protect public safety and had been developed according to the most recent science were presented as *the* reason why the resulting regulation is legitimate – and therefore, worth preserving. For instance, OMAF consistently emphasizes the food safety values inherent to the FSQA and O. Reg. 31/05, saying that they "enhanced our provincially licensed meat plants' good reputations for safe food and further demonstrated Ontario's commitment to a strong food safety system" (OMAF, 2013). Frequent references to the scientific soundness of national and global regulatory systems (notably, HACCP and the Codex Alimentarius, as well as the NMPRC) are made in discussions about regulation in Ontario, invoking, in turn, the scientific basis of *these* sets of standards. The HACCP system is billed as "scientific and systematic" and the Codex standards, which are developed based on the views of ostensibly independent experts (often from the WHO or FAO) who review existing studies and offer "scientific advice on health risks" (Smythe, 2009, 100), are said to be able to withstand "the most rigorous scientific scrutiny" (WTO, 2014).

Likewise, the OIMP also emphasizes the scientific orientation of Ontario's regulatory regime. References like this one (in an introduction to a 2009 presentation) are common: "this regulation [Ontario Regulation 31/05] was developed to meet the NMPRC standards using an outcome-oriented and science-based approach…" (OIMP, 2009a). During interviews, OIMP representatives argued that the "highest level of food safety programs need to be in place" in order to propel the industry forward (Interview: Judy and Rita), explaining why the regulatory adjustments that have been made in recent years have benefited the industry.

Some interviewees asserted that the purportedly scientific basis for Ontario's food safety regulations make it more difficult to criticize these rules. Throughout the interview process I noticed many operators prefacing their comments on the regulatory system with statements such as "I do support safe food, but…" which points to a perceived need to reinforce their

commitment to food safety before launching a critique. Hiram had the following to say about his experiences trying to critique the regulations:

> I've tried 20 times to start a conversation with the health unit people about changes, ways that they could ease off on their inspection to allow these businesses to get up off their knees, these small businesses. And invariably the conversation goes along to a certain point and then they play "well that's a safety issue" and that's a trump card, as far as they're concerned. As soon as they say, well in their eyes, "that's a safety issue", there's no longer any possible discussion about it, that's just the way it's gonna be. And I just disagree with that. I don't think that food safety is ever a trump card…

Relatedly, common representations of regulation as "inevitable" tend to reinforce this de-politicization. OIMP, in a 2009 report, argued, "The industry is continually responding to change based on consumer demands and food safety concerns. Change, in any sector, is inevitable and adapting to change takes time, money, attitude, and forward thinking." Further, the report goes on to explain that we have seen the decline in many other sectors already: "the declining automotive sector, the disappearance of the corner store, the decline in the number of abattoirs, and local butcher shops…." In invoking broad processes of decline, these arguments normalize the decline of Ontario's abattoirs and represent structures of regulation and governance as not having impacted such trends; they treat the decline of local meat systems as a "fait accompli."

Much has been written on the potential consequences of such appeals in slightly different circumstances. As was discussed in chapter 3, what often happens when regulators invoke the scientific origins of food safety standards is that these references neutralize critiques of those standards, regardless of whether those critiques are being legitimately made. After all, representing regulatory standards as having been created with the best interests of the public in mind, using scientific data, makes the person launching the critique appear as though they are targeting "the public". In framing the debate as one between regulation – rooted in science and designed to most effectively promote food safety – and an unnamed "other" option (which presumably would not be either of these things), the current form of regulation is defended (McMahon, 2007). As DeLind and Howard make clear, however, critics are really often attempting to get at issues related to specific elements of regulations – details specific to the context in which the regulation is implemented and related to the mode of implementation, its scale appropriateness, or associated costs (2008). But this nuance is lost. The claim that food safety could still be protected if regulations took a different form

becomes very difficult to defend when scientific fact becomes the sole basis for knowledge about food safety risk.

Altogether, these processes have led to a situation devoid of space for engaging in real discussions about the potential effects of regulations, or the ways in which some needs are being decidedly sacrificed in appealing to other values and protecting other needs. In other words, in de-politicizing regulation in Ontario's context, spaces or opportunities for connecting regulation to other values held by consumers, government and industry becomes very difficult. Within debates about food safety it is nearly impossible to argue in favour of promoting local food systems and capitalizing on their unique benefits; instead, this tends to be seen as a separate topic. This process has undermined the capacity for average abattoirs operators to have their voices heard and to be included in processes of regulatory development that are based on shared understandings.

It would be significant for Ontario's local meat producers and processors if regulatory development in the province were more widely seen (especially by primary stakeholders, such as the OIMP or OMAF) as involving processes of weighing different values, not simply reflecting 'scientific fact'. This could make it possible open up debates around Ontario's local meat sector and how it is governed to include a wider set of values – and a broader conception of risks posed by various systems –in deciding upon the nature of regulations going forward. Indeed, the wide range of value-laden considerations that should figure in to discussions about food safety regulation typically get missed by the limited scope of the established discourses around food safety assessment. As discussed in chapter 3, and as McMohan argues, "rural poverty and exploitative farm labour, loss of biodiversity and groundwater depletion or soil erosion" (2014, 416) are all, in fact, food safety issues that should be part of such conversations. An important goal, therefore, is to re-assert the political nature of regulation with the goal of creating a broader scope for food safety analysis in Ontario. This should include a broader range of considerations regarding what use regulation should serve and whose interests should be considered, including scientifically, ecologically and socially-based sources of information.

After all, regulations are borne of political processes and tend to result in differentiated and uneven outcomes for different players in food systems, as chapters 5 and 6 have shown. Re-

politicizing regulation and pushing open space for debating the many costs and benefits for those with a stake in food safety regulation could be a powerful way of enabling a genuinely stronger local food system in Ontario.

Conclusion

This chapter has drawn out a variety of views on the impacts of regulation in Ontario's local meat sector, including some conclusions about how this regulation tends to be discursively defended and what some of the impacts of this can be. The chapter began by summarizing the benefits of Ontario's current regulatory standards, as reflected by a small group of stakeholders. They claim that improved food safety protection, as well as an improved reputation for Ontario-inspected meat, are its primary purported benefits. Then the discussion turned to the views of the majority of stakeholders interviewed, who point to both economic and non-economic reasons for which the regulations have caused them problems. Among these are the impacts of the audit method (and its tendency to limit direct auditor-operator communication, while requiring constant additional infrastructure adjustments); the costly infrastructure changes required and frequently unclear timeframes involved; the repetitive and intensive documentation processes; and heightened levels of operator stress, resulting from perceptions of being targeted, disrespected and unable to contest events or requests that they find unfair.

Then, some major points of contention were discussed, namely operators' views on the types of innovative and adaptive behaviours said to be at the root of closures. Many operators reflected quite different views, however, and pointed out various reasons for which this type of adaptation is not always possible. Finally, this chapter ended with a short discussion about how the nature of contestation, and those in favour of regulation, effectively legitimate the regulations they defend by making them appear as apolitical as possible. In so doing, regulation continues to appear uncontestable, and deliberations about how it should be developed only consider narrowly-defined food safety needs, not the broader set of risk factors that ought to feature in to such deliberations.

Conclusion: Local Abattoirs in Ontario

Summary of this research

This thesis has involved an investigation into the causes of closures in Ontario abattoirs, as well as a critical analysis of the role played by food safety regulation in this particular regional context. Using an institutional ethnographic approach (Smith, 2005), a series of in-depth, semi-structured interviews were conducted with 28 industry stakeholders. This group included former and current operators of abattoirs, several livestock farmers targeting local markets, and a small group of institutional stakeholders (two representatives of OMAF, as well as two representatives the OIMP), as well as several individuals involved in less formal groups which have been advocating on behalf of abattoir operators in the province. More details concerning the methodological approaches engaged in as part of this study were detailed in chapter 3.

Chapter 4 delved into the context within which current declines are taking place. Ontario's history as a livestock-producer and meat processing province has been one of rises' and falls', and a basic understanding of this history helps to contextualize the remainder of the thesis. Several main points are especially important to note. First, various factors contributed to Ontario becoming, in the early 1900s, the centre of meat packing in Canada, which resulted in a powerful export-oriented industry. Although the centre of this industry eventually moved west, many remnants of these early days remain, including a base of federally-inspected plants and a strong export-oriented meat lobby. At the same time, Ontario's origins as a province of mixed, small farms – along with the type of meat processing infrastructure that supported them – held on alongside the growth of the larger packing plants. Secondly, the form that both the federal inspection system (created in Ontario in 1906) and Ontario's provincial inspection system (created in 1962) took were influenced by various political factors, at the centre of which was the need of the large-scale meat packers for the legitimacy granted by food safety inspection systems.

In chapter 5, one of the core questions of this project was explored. Based primarily on interview data, stakeholder views on abattoir closures were discussed. To begin, a series of

four commonly-held views on closures was addressed. Stakeholders discussed a wide range of causes, from changes in the number and type of livestock farm, to intensifying competition with conventional and low-cost (but high-externality) meat production/processing systems, to difficulties attracting skilled labourers (and the lack of training programs for this purpose in the province). As well, peoples' changing consumption habits (away from purchasing meat in bulk) and a lack of retail opportunities were pointed to. Then, two factors which were more contentious among interviewees were turned to: the notion that farmers are fickle abattoir customers, and ought to be more committed to local abattoirs, and the notion that operators have not been adapting to new industry realities sufficiently.

Chapter 6 described how two processes seem to have driven the significant changes to Ontario's regulatory framework that were implemented in 2001 and 2005. It is argued that changes were propelled by pressures to align Ontario's standards with what are seen as the most modern and safe food safety standards in place today: the Codex Alimentarius standards, and the HACCP food safety assurance system. At the same time, recent food scares – and the political imperatives they entailed – seemed to legitimate a major move towards these increasingly harmonized standards. However, globally-prominent food safety assurance systems, like HACCP, have ironically been designed to respond to industrialized production systems and, at the same time, to meet the needs of the same businesses for different kinds of regulation. Thus, conceived with the interests of export-oriented plants in mind, it is hardly surprising that systems such as HACCP have been found to be much more difficult for small operations to implement (Taylor, 2001; Panisello et al, 1999). The resulting food safety regime is also more integrated, highly controlled, and aligned with global norms than ever before – and, as chapter 7 explores, it has been having uneven impacts on local abattoir operators here in Ontario.

Chapter 7 begins with discussion of the statements of a small group of stakeholders, which includes the prominent Ontario Independent Meat Processors (OIMP), who argued that the 2001 and 2005 changes made to Ontario's regulatory framework have, overall, positively impacted the provincially-regulated meat industry. Their primary arguments, which centre on the claim that these regulations have improved public perceptions of the safety of Ontario meat, essentially portray the increased costs associated with the new regulations as a reality of doing business that simply had to be adapted to. This type of adaptation tends to involve,

they argued, expansion, the production of new value-added products and higher custom slaughter rates. Next, the much-less-favourable views of the majority of operators on the impacts of the new regulations were discussed. These operators saw audits as the most significant point at which regulation becomes a problem for them, citing the lack of opportunities for reasonable discussion with the auditor a the tendency towards requirements of "continuous improvement" (see Dunn, 2003.) Specifically, it was the scale and type of infrastructure changes required that were most significant, but adding to their significance was the tendency toward imprecise timeframes and the feelings of stress and powerlessness which were often reported in tandem with financial stress.

Then, some of the major points of contention between these two groups were discussed, namely operators' views on the types of innovative and adaptive behaviours that the small group of stakeholders (mentioned above) asserted were at the root of abattoir closures. Operators contested the claims about types of adaptation needed, pointing out how prices cannot be raised too much without repercussions (from farmers), and that new markets are not always available to abattoir operators, especially the smaller ones. Finally, this chapter was concluded with the argument that regulation is commonly defended and legitimated through appeals to its scientific origins, as well as through the use of language that refers to its 'inevitability'. Both types of appeal serve to legitimate the notion that the protection of public safety requires regulation that closely resembles its current form, and undermine the capacities of stakeholder critiques to be taken seriously. Additionally – and importantly – these discursive techniques keep the scope of risk assessment narrow by continuing to maintain the apolitical nature of regulation, which denies the relevant other important types of risks (such as the 'risks' facing local food systems or rural livelihoods entailed in current regulatory methods.)

Situating this Research

This research has been informed by and builds upon existing scholarly work. First, critical work which has connected the form of power referred to as governmentality to governance within the food system was instructive (in particular, Dunn's 2007 study which posited the HACCP system as a form of the operation of governmentality). Such readings of governmentality focus on the role of this form of power in transforming how we think about

improvement by changing complex and value-laden questions into ones about technical efficiency and science (see Li, 2007; Dreyfus and Ranibow, 1999). This approach to the study of power helped to inform analysis of the ways in which science has been appealed to within the Ontario context to de-politicize regulation and deflect criticism.

A variety of other scholars discussed the invocation of scientific expertise in various other situations, some of which referenced food-safety regulation specifically, including Pielke and Reiner, 2004; Sage, 2007; Kimura, 2012; and McMahon, 2014. Although this work is quite diverse, a common thread was the argument that 'expert knowledge' can – and frequently is – invoked in a such a way that effectively disables other bases for critique, and can actively legitimate a particular form of governance which is said to be based in scientific fact. As the de-politicization of regulation emerged as a significant element of debates surrounding food safety governance in this province, this research informed this analysis.

Secondly, another related area of literature focuses on the limitations of the popular and pervasive risk (and science) based approach to hazard identification and risk assessment. This dominant approach (described in chapter 2; see Wiener and Rogers, 2001; Singh et al, 2009) is critiqued by various scholars who claim that it validates a very narrow range of risk factors. Most importantly, while disguised as neutral and based only in scientific fact, this method of risk assessment necessarily entails value-based judgments as it weighs costs and benefits of various types of regulatory action (see Winickoff and Bushey, 2010). Indeed, when these tendencies are extended to discussions about food safety regulatory systems, it becomes possible to see how conventional food production systems can appear very safe due to the fact that they abide by food safety assurance systems, such as HACCP. However, as many have argued (see Delind and Howard, 2008; Stuart and Worosz, 2012; Dunn, 2003; Stuart, 2008) this covers up the multitude of other risks inherent to this system, and legitimates it even further. Ecological risks, other human health risks (such as those posed to workers in slaughterhouse, for instance) and risks to rural livelihoods are all left out of the processes through which regulatory decisions are made.

This research showed that by maintaining that food safety regulation is based only in the best science (and therefore cannot truly consider other values or needs, such as the maintenance

of a flourishing local slaughter sector), Ontario-based regulators and other institutional actors have been able to deflect critique of the impacts of this regulation on local abattoir operators. It is argued that the regulatory development process does not openly and sufficiently consider food safety needs *as well as* other values held by the people of Ontario. Relatedly, some researchers point out the unique position of publically-administered food safety regulatory programs (as opposed to privately-administered systems, of which there are a growing number) to *balance* the values of safety and fairness (see Amekawa, 2013.) Achieving such a balance, however, can only be possible once regulatory decision-making processes are recognized as involving political decisions. Then, if accompanied by deliberations inclusive of a wide variety of stakeholders, these processes can be opened up to include consideration of a wider variety of needs and values, including those associated with a flourishing local food system.

Altogether, this research was undertaken in order to fulfil two goals: first, to contribute to critical food studies literature by problematizing declining abattoir capacity and situating it as a food systems issue, and second, to contribute a piece of empirical research useful to those engaged in efforts to strengthen Ontario's local meat sector. Indeed, those with this interest had identified a lack of sufficient empirical work exploring the place-specific nature of this sector's challenges, which is partly what compelled this research project in the first place. To this end, an institutional ethnographic framing compelled the use of in-depth interviews supplemented by document analysis, making it possible to both offer an analysis of challenges leading to abattoir closures as well as a more in-depth examination of one of the major identified cause: food safety regulations. This study, then, not only contributes valuable accounts and analysis of local debates around abattoir closures, as identified in part by those directly implicated, but also situates these debates within some of the broader institutional practices that impact, in particular, the nature of food safety regulation. By providing new empirical information and situating it within the contexts both of Ontario's meat processing history and globally-shifting approaches to risk assessment, this study provides a contribution that could be useful to grassroots advocacy efforts, while also making a unique contribution to academic scholarship.

There is much more research needed, however, including that which could directly inform governmental and non-governmental work in Ontario's local meat sector, and that which

could inform and contribute more to critical food studies scholarship in general. Some such issues were noted by stakeholders and I will expand upon these below. Some additional areas for academic exploration emerge from the limitations of this project itself.

Moving Forward

One common theme and area for further exploration concerns the common claim made that Ontario's new regulatory regime has improved the reputation of "Ontario-approved" meat and therefore has opened up many new retail and institutional buyers to locally-oriented producers and processors. An exploration of the extent to which this has occurred would be very instructive. Interviewing buyers for retail chains of various types and scales, as well as public institutions, regarding their views of provincially-inspected meat could reveal important information about how the value of 'reputation' has or has not been impactful. A second theme concerns another topic of debate brought up through the interview process: how have farmers been supporting and/or neglecting the local abattoirs they rely on, and how could better farmer-operator collaboration be facilitated? This type of project could include a survey of farmer-abattoir collaboration within the province (and/or beyond), which has already taken many forms. Best practices identified by those involved, as well as important questions concerning the effectiveness of these techniques and their potential to meaningfully re-invigorate a struggling local meat sector, could be explored.

Finally, a research initiative that is specifically focused on the barriers facing poultry producers and abattoirs would be a very important contribution. This research found that the barriers facing both of these groups are unique and quite severe, and are closely connected due to the nature of the supply management (quota) system in poultry which limits the number of chickens which can be raised by a non-quota holder to 300 per year. However, the scope of this research limited any meaningful engagement with the unique barriers facing many poultry-only abattoirs. Finally, and related to the practical barriers to abattoir success that were investigated through this research project, would be an in-depth analysis of the specific geographic nature of gaps in custom slaughter capacity in Ontario, as identified by farmers. Indeed, this research project began with the premise that declining abattoir numbers is bound to impact the farmers who require their services; but the extent to which this is already happening has not yet been analyzed in an in-depth way in Ontario.

This research has solidified the need for more critical food scholarship that is focused on investigating infrastructure gaps that are actively undermining the capacities of farmers to earn livelihoods (and survive) – or to scale up their operations. Indeed, as Hinrichs and Bloom have argued, despite increased interest in local food, "communities are grappling to coordinate local production and distribution with increased demand" (2010, 13). At the same time, farmers producing products requiring processing (including, for example, meat producers) tend to have a more difficult time accessing the "local food premium" that can come from involvement in shorter supply chains, with closer proximity to markets and fewer intermediaries, because they have the added questions related access to affordable processing services to consider (Mount, 2012, 108.) Yet, the abattoir operators who have been the focus of this study are no better placed to turn a profit in this current food system than these local farmers, as this research has alluded to. Further, there is ample room for additional investigations into the basis for food safety regulatory policy, especially that which applies at local and regional levels. This study pointed to some of the factors which appear to be contributing to the form this type of governance takes in Ontario, but this topic could benefit from much more theoretical work, interrogating the nature of other institutional, political and economic factors.

As was outlined in the introduction to this paper, Alternative Food Movement (AFI) activists, as well as critical food studies scholars, have increasingly been turning their attention toward actors – and issues – within food systems which had previously gone unnoticed (Levkoe, 2011). As I have argued over the course of this thesis, abattoir operators are a group of actors within local food systems who tend to be ignored. However, the work they engage in – and its role in linking local livestock producers to their markets – facilitates the continued functioning of locally-oriented livestock supply chains and yet, they are typically left outside of conversations about local food systems.

It is important that such gaps enter into academic, as well as political, conversations. Indeed, Ontario implemented the Local Food Act in November of 2013, becoming the first of any Canadian province to institute such legislation (Mann, 2013), and this piece of legislation constitutes a huge opportunity. At the same time, however, it could just as easily result in an unfortunate neglect of the practical barriers that are limiting the success of Ontario's local food system. It is imperative that legislation like this does not divert attention from the real

challenges facing local food producers, including abattoir operators, and instead recognizes and aims to address the complex challenges that farmers, processors and consumers are facing.

In continuing to view food safety regulation (the primary point of engagement of the provincial government in this sector) as completely separate from questions of local food system renewal, it has been possible for policy makers and institutional players in this industry to continue to defend a type of regulation that has been undermining the viability of local abattoirs. While the provincial government's role in protecting the public by regulating meat processing is typically presented as separate from its to role in promoting local agricultural renewal, these issues are, in reality, closely interconnected. Efforts to tighten food safety rules have impacts on local abattoirs and can undermine their capacities to remain viable, as this thesis has shown. If, instead, the regulatory challenges facing abattoir operators were seen as one of the barriers restricting the success of locally-oriented food systems, the possibilities for addressing this issue could be significantly expanded. In so doing, the local meat sector could stand a much greater chance of surviving – and even growing into the type of food system that many want: one that genuinely enables farmers to earn a fair livelihood and promotes human and ecological health.

Appendix 1

In-Depth Interview Guide: Interviews with Current Abattoir Operators

Topics	Questions	Probes
Business Information	*I'm interested in knowing more about your business.* Who is the owner(s)? When did you start operating the business? Do you offer custom slaughter services? What portion of your business overall is the custom slaughter portion?	• Length of time you have been in business • Previous generations in the family? • How many family members are involved today? • Who are your customers? (I.e. organic farmers or not? What size of herds/flocks?)
History and Business Activity	*For the purposes of this research, I'm mostly interested in the custom slaughter services you offer to farmers, but I'd also like to know what else you do.* Could you tell me more about your business, its history and its current activities? Have there been any changes in terms of how you operate & what services you offer over the years? What's your marketing strategy?	• Which other activities: smoking/curing, prepared meals? • Do you farm as well? • Retail or wholesale? How much? • How many animals / week? • Do you offer emergency slaughter services? • Do you slaughter wild game? • Are you associated with any groups, like OIMP? • Employees? How many?
Causes of Decline	*This research is looking into the decline in the number of abattoirs operating in Ontario (there are almost 50% fewer today than 15 years ago).* Why do you think this many abattoirs have closed their doors over the last 15	• Would you say that your own business is succeeding or would you say that your business is struggling? • What are the key factors that determine whether you're breaking even or not?

	years? For you in particular, what are your challenges in terms of the abattoir portion of your business?	
Potential sources of challenges: Regulations?	*Many people point to the way the sector is regulated as a big challenge for operators.* Do you agree? Why or why not?	• If so, how have regulations (Food Safety-oriented or others) affected your business? • If so, do you think it's the regulations themselves or the way in which they are imposed that poses the greatest issue?
Food Safety	*The safety of meat is the primary concern that inspires most regulations in the sector.* What do you think of the way that food safety is currently "guaranteed" (through the Meat Act 31/05)? Is it working? Are there areas of concern? What do you think is the best way to actually make sure that the meat being cut and distributed in Ontario is *safe*?	• Have you been encouraged to develop HACCP protocols? • What pushes you to do everything you can to offer safe meat to your customers? • Do you know about the changes to the meat regulation recently proposed by OMAF (spring '13)? If so, what effects do you think these changes would have if implemented?
Other Challenges…	What else makes it difficult for you to succeed at what you do?	• Attitude /relationships with inspectors? • Competition with cheaper meat? • Are you able to charge a price that reflects the value of your services?
Addressing these problems: Solutions	How should these issues be addressed, in your opinion?	• What kind of gov't support have you been offered and

	Who is responsible for addressing them?	which program? • Did you accept the help? Why or why not?
Challenges and Change in the Sector	How has the industry changed since you've been in it? What do you think has caused major shifts in the sector? Any last thoughts you'd like to share?	• Do you see a future for yourself and/or your children in the business? • Do you think that the '*local food movement'* has been having an impact on your business?
Closing Remarks	Email address to send my research results to? If you have any questions in the coming weeks they can contact me at any point. Do you know of anyone else who might be interested in speaking with me?	

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