

Policies to Promote Socialization and Welfare in Dog Breeding

by

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Abstract

Dog breeding is an unregulated industry in British Columbia and most of Canada, resulting in poor outcomes in some dogs' welfare: genetic make-up, physical health, and mental health. This suffering in dogs results in subsequent costs to taxpayers and dog guardians. This study explores the question: How can British Columbia overcome the negative externalities surrounding the welfare and socialization of dogs in the dog-breeding industry? Policies in five countries are reviewed, informed by legislation, publicly available data, and confidential interviews with key informants. Three policy options emerge from the findings: regulation, regulation with licensing and permissible inspection, or regulation, licensing, and mandatory inspection. Approaches are evaluated using a multi-criteria approach. The study recommends a comprehensive, measurable, and equitable regulation with licensing and permissible inspection. To be effective, this regulation should be implemented with adequate consultation, training, and public education.

Keywords: dogs; breeding; animal welfare; Canada; public policy; regulation

Dedication

This research is dedicated to my “best friends”: Woody, Nutmeg, Pepinot, Frisbee, and Winston. I also dedicate it to all the dogs who never experience positive social interaction with humans during their lifetime.

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Thank you to Nancy Olewiler and Rhys Kesselman for considering a road less traveled by taking me on as a student, to Geoff for bringing me deeper down the animal welfare policy “rabbit hole,” to Marcie for providing guidance, to Dr. Frank for conducting valuable research, to Joey for listening to me talk about animals and policy day and night for two years straight, to my fellow MPPers for being a sounding board of sanity, and most of all, to my parents, Bob and Sandy, for teaching me that animals are sentient beings worthy of love and respect.

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List of Acronyms

Term	Definition
AKC	American Kennel Club
APHIS	Animal and Plant Health Inspection Service
BC	British Columbia
CID	Cruelty Investigations Department
CKC	Canadian Kennel Club
CVMA	Canadian Veterinary Medical Association
DBE	Dog Breeding Establishment
HSUS	Humane Society of the United States
ISUAS	International Summit for Urban Animal Strategies
LGIC	Lieutenant Governor in Council
PCA Act	Prevention of Cruelty to Animals Act
PIJAC	Pet Industry Joint Advisory Council
SPC	Special Provincial Constable
SPCA	Society for the Prevention of Cruelty to Animals
USDA	United States Department of Agriculture

Glossary

Term¹	Definition
Animal welfare organization	A charity or non-profit centred around the concern for non-human animals' physical and psychological well-being (Hewson, 2003)
Backyard breeder	A small-scale intentional or unintentional breeder who does not adequately take soundness into consideration
Bitch*	A female dog
Breed*	A group of animals within a species having common ancestors and certain distinguishing characteristics, usually developed by deliberate selection
Breeder*	A person who breeds dogs
Brood bitch*	A female dog used for breeding
Canine*	Any animal of the family Canidae
Commercial breeder	A large-scale for-profit breeding operation
Companion dog	A domesticated canine who has been selectively bred to live and thrive in mutually beneficial relationships with humans and who is kept primarily for the purpose of companionship (BC SPCA, 2011)
Conformation*	The form, structure and physical arrangement of body parts in accordance with the breed standards
Crossbred*	A dog whose sire and dam are of two or more different breeds
Dam*	The mother of a puppy or litter
Dog*	Technically refers to a male dog, but is commonly used as the generic term to refer to canines of both sexes
Euthanize	To kill humanely
Guardian	Owner
Hobby breeder	A small-scale intentional breeding operation
Inbreeding*	The mating of very closely related dogs, those within their immediate family
Intact	Reproductive organs are in place; e.g. not spayed or neutered
Kennel*	An enclosure where dogs are kept; a dog breeding and/or housing operation

¹ Definitions of terms marked with an asterisk are taken whole or in part from the Canadian Veterinary Medical Association (2007, pp. 3-5)

Neonate*	A puppy from birth to three weeks of age
Pedigree*	A written record of a dog's descent; a family tree that may be registered. For registration purposes the requirement is generally a three-generation pedigree
Puppy mill*	A high volume, sub-standard dog breeding operation, which sells purebred or crossbred dogs to unsuspecting buyers. Some of the characteristics common to puppy mills are: <ul style="list-style-type: none"> • Substandard health and/or environmental issues; • Substandard breeding practices which lead to genetic defects or hereditary disorders; • Erroneous or falsified certificates of registration, pedigrees, and/or genetic background. <p>Note: These conditions may also exist in small volume or single-breed establishments</p>
Purebred*	A dog whose sire and dam represent the same breed and are themselves of unmixed descent
Registered breeder	A breeder who is signed up and conforms to the standards of a recognized registration body, such as the Canadian Kennel Club
Reputable breeder	A breeder who is responsible and cares for all of his/her dogs' physical and psychological well-being
Sire*	The father of a puppy or litter
Socialization*	The process by which an animal is introduced and exposed to human and animal contact, thereby developing behaviour that is friendly and sociable. The puppy learns to accept other domesticated animal species, including its own, in close proximity
Soundness*	The physical conformation and temperament that measures the degree of freedom of a purebred dog from flaws and defects, whether related to physical appearance, temperament or genetic problems
Stud*	A male dog used for breeding purposes
Temperament*	A dog's character, disposition, and tendencies; the behavioural characteristics of a dog that are relatively stable over time and across similar situations
Welfare	Physical and psychological well-being

Executive Summary

Dogs in Canada are surrendered to community animal shelters, abandoned, and euthanized because of market failure in the dog-breeding industry. In this predominantly unregulated market, negative externalities occur because of information asymmetry and buyers' lack of knowledge about sellers, affecting the welfare and socialization of dogs. Some puppies experience genetic defects, unsanitary conditions, and infrequent positive socialization before entering the buyer's home. In these cases, the adult dog is prone to genetic, physical health, and behavioural problems. Many dog guardians who experience these problems choose to abandon the dog, surrender it to an animal shelter, or euthanize it.

This cycle of careless breeding results in both monetary and non-monetary costs. Taxpayers absorb the costs through the provision of community shelter services. Dog guardians may pay for unexpected veterinary costs, dog trainer costs, and in some cases, the cost of emotional trauma when the dog is returned, surrendered, or euthanized. A dog and its sire (father) and dam (mother) experience costs through physical and mental suffering. In more extreme cases with dogs that bite, a dog guardian may bear the costs of damage to property or self. The guardian may also face the cost of a civil law suit in the case of trauma and injury from an attack to a human being or animal.

No reliable statistics are available on the number of dog breeders in British Columbia (BC). Additionally, BC does not have any policies in place to offset the market failures of the dog-breeding industry. This study explores the question: how can British Columbia overcome the negative externalities surrounding the welfare and socialization of dogs in the dog-breeding industry?

Policies are implemented in jurisdictions around the world to overcome these negative externalities. The study examines policies in five countries: Ireland, the United Kingdom, Australia, the United States, and Canada. The summaries of their approaches are informed by legislation, publicly available data, and confidential interviews with key informants. Regulations specific to dog breeders, with the exception of the United Kingdom and the United States, have all been introduced within the last three years.

The policies vary by the type of breeder they regulate: some focus only on large-scale breeders while others regulate all breeders. The policies also differ significantly in the clarity and coverage of the regulations. Some policies have licensing in place, and of those, some have permissible inspection while others have mandatory inspection. The regulatory systems that have been in place for more than three years have encountered public consternation as a result of gaps in policy.

The jurisdictional review reveals a list of possible policy approaches. These approaches are evaluated against the research question and subsequent three objectives: their ability to 1) document the number of dog breeders; 2) address the genetic, physical health, and mental well-being of dogs; and 3) address all puppy sources.

After considering all possible policy alternatives, three salient policy options emerge. The first approach is to implement a dog-breeder regulation with guidelines for both commercial and hobby breeders. The second approach is to implement the aforementioned dog-breeder regulation with the addition of licensing and permissible inspection. The third approach is to implement the dog-breeder regulation with licensing and mandatory inspection.

These policy options are evaluated using three criteria: effectiveness, government costs, and stakeholder acceptability. Using a multi-criteria approach, the policies are rated from least ideal to most ideal on a scale of one to six. The second option (regulation, licensing, and permissible inspection) ranks the highest with a score of 13 out of 16. The third option (regulation, licensing, and mandatory inspection) scores slightly below with 11 out of 16. The first option (regulation) scores last with a total of 10 out of 16.

The study recommends that regulation, licensing, and permissible inspection be adopted in a flexible manner, allowing for a future change to mandatory inspection based on the number of breeders and amount of money and resources available. The recommendation also includes a list of necessary considerations for the enactment of any regulation. These considerations include ensuring that the regulation is clear, auditable, reasonable, and without gaps. Any implementation of a regulation for dog

breeders should also include adequate resources dedicated to consultation, breeder and inspector education, and public and consumer awareness. Finally, in order to regulate incoming dogs from dealers in the United States and decrease the frequency of impulse purchases, the study recommends a ban on the sale of puppies in pet stores.

The limitations of the study include lack of finances, time, and access to available data. Future studies can be directed at the effectiveness of the regulations recently introduced in Canada, with an in depth review of the policies contained within the regulations.

Dog breeders have been unregulated far longer than any other agricultural industry in British Columbia and Canada. Citizens in provinces across Canada have called for change, and in three provinces, change has been implemented through tangible regulations. British Columbia can be the next province to support better standards for man's best friend.

1. Introduction: Dog Breeding as a Market Failure

Dogs in Canada are surrendered to community animal shelters, abandoned, and euthanized because of market failure in the dog-breeding industry. In this predominantly unregulated market, negative externalities occur because of information asymmetry and buyers' lack of knowledge about sellers, affecting the welfare and socialization of dogs. Some puppies experience genetic defects, unsanitary conditions, and infrequent positive socialization before entering the buyer's home. In these cases, the adult dog is prone to genetic, physical health, and behavioural problems. Many dog guardians who experience these problems choose to abandon the dog, surrender it to an animal shelter, or euthanize it.

This cycle of careless breeding results in both monetary and non-monetary costs. Taxpayers absorb the costs through the provision of community shelter services. Dog guardians may pay for unexpected veterinary costs, dog trainer costs, and in some cases, the cost of emotional trauma when the dog is returned, surrendered, or euthanized. A dog and its sire (father) and dam (mother) experience costs through physical and mental suffering. In more extreme cases with dogs that bite, a dog guardian may bear the costs of damage to property or self. The guardian may also face the cost of a civil law suit in the case of trauma and injury from an attack to a human being or animal.

No reliable statistics are available on the number of dog breeders in British Columbia (BC). Additionally, BC does not have any policies in place to offset the market failures of the dog-breeding industry. This study explores the question: how can British Columbia overcome the negative externalities surrounding the welfare and socialization of dogs in the dog-breeding industry? Policies are implemented in jurisdictions around the world to overcome these negative externalities. This study examines the policies of other jurisdictions and employs a comparative case study to assess their relative

effectiveness. The evaluation of policies includes a review of legislation, publicly available data, and confidential interviews with key informants. Ireland, the United Kingdom, and the United States have national legislation. Several Australian and American states, three Canadian provinces, and numerous municipalities have also developed legislation and regulations.

Policy options emerge from the findings of the cross-jurisdictional review and I evaluate the options using a multi-criteria approach. The study provides a policy recommendation for the Legislative Assembly of British Columbia, which can be applied in any jurisdiction with the ability to regulate dog breeding. I conclude with a discussion of the limitations and next steps.

2. Background: Commerce, Welfare, and Legislative Context of Dog Breeding

This section provides background to dog breeding facts and issues in Canada. It outlines the terms and concepts related to dog breeding. Next, it explains the economic model for the transfer or purchase of puppies. Animal welfare theory and its relevance to policy are explained. The remainder of the section focuses on the welfare concerns with dog breeding and the legislative context nationally and provincially.

2.1. Context of Dog Breeding

Intentional dog breeding is conducted for multiple purposes and in varying conditions in Canada. Some dogs are bred to work, such as assistance dogs, police dogs, sled dogs, herding dogs, and dogs used for entertainment. Other dog employment in Canada includes military work, search and rescue activities, pest detection, bomb detection at airports, and contraband detection by the Canadian Border Services Agency. Others are bred for use in animal testing and research, hunting, or dog fighting. The remainder of dogs are intentionally bred to be companion animals (pets) or to be used as breeding stock for all of the aforementioned uses. A 2009 study estimated that over six million companion dogs are owned in Canada and approximately 32.3 per cent of households in Canada have at least one dog (Perrin, 2009).

Breeders are often organized in two groups based on their size: hobby breeders and commercial breeders. The definition of a hobby breeder varies based on the context. A common definition is that a hobby breeder has between one and three bitches (female dogs) for the purposes of both companionship and breeding. Some purebred oriented hobby breeders are registered with the Canadian Kennel Club (CKC), while others who have unregistered purebred dogs or crossbred dogs are not.

The definition of a commercial breeder also varies based on the context. Generally, a dog breeding operation existing in order to make a profit qualifies as a commercial breeder, sometimes also called a commercial kennel. In some cases, a commercial breeder is regulated based on the number of brood bitches. In other cases, laws regulate commercial breeders within a broader category of animal dealers. In those instances, dealers who sell more than a certain threshold of dogs to generate revenue are regulated (HSUS, 2007). Commercial breeders vary significantly in their treatment and care of animals. Sanitary conditions can vary from clean, modern, and well-managed to fetid, noxious, and potentially detrimental to both human and animal health and welfare (Hinds, 1993; McMillan, Duffy, & Serpell, 2011; Smalley, 2009; Towsey, 2010; USDA, 2004; USDA, 2010). Many commercial breeding establishments have the following characteristics: a large number of dogs housed for their entire lives in barren cages or runs; space is used to maximize efficiency and to the minimum legal acceptability; toys and enrichment are absent; positive human interaction is minimal; and veterinary health care is infrequent (McMillan et al., 2011; Bradley, 2010; Fischer, 2010; Shaughness & Slawecki 2010). Both hobby breeders and commercial breeders have been the subject of a number of cruelty investigations in British Columbia (BC SPCA Cruelty Investigations Department employee, personal communication, June 21, 2012).

In Canada, the *Animal Pedigree Act*, R.S.C. 1985, c.8, governs registered dog breeders. This act was established with the intention to promote breed improvement and protect persons who raise and purchase animals belonging to registered breeds. Most registered breeders of purebred companion dogs in Canada are members of the CKC. The CKC, a dog pedigree association, recognizes 175 different breeds. The organization provides dog breeders with a place to register their purebred dogs and provides governance for shows, trials, and events. The CKC prohibits their members from selling or donating their dogs to retail businesses selling live animals, such as pet stores. CKC inspects only breeding documents and registration; the remainder of their code of practice remains a recommendation (<http://www.ckc.ca>). No internal auditing system exists to monitor if recommendations made in the code of practice are being followed. Other organizations not recognized by Canadian legislation also register some Canadian bred dogs, both companion animal and working breeds, such as the North American Purebred Dog Registry (CFHS, n.d.). For some organizations, the soundness

of the animal, or its physical conformation and temperament, is taken into account. For others, the breeder is not required to meet any standards and the organization is merely a registry. Animal welfare organizations argue that a registry alone cannot guarantee the soundness of an animal (CFHS, n.d.).

Animal welfare organizations often utilize alternate terms for breeders. “Backyard breeder” is a derogatory term to indicate either home breeding for non-commercial reasons or a small unprofessional commercial operation that does not adhere to good breeding, care, and sale practices. The same organizations use the term “puppy mill” to refer to a large-scale sub-standard commercial breeding operation. In contrast, several of these organizations use the term “reputable breeder” to refer to all breeding operations who breed responsibly (ASPCA, 2012; BC SPCA, 2011; CFHS, n.d.; RSPCA Australia, 2012). They consider a reputable breeder to be one who emphasizes the genetics, physical, and mental well-being of the dogs in their care. Reputable breeders also screen buyers, educate them, and provide follow-up support after purchase. Finally, reputable breeders take lifetime responsibility for the dogs they have bred (ASPCA, 2012).

2.2. Commerce of Dog Breeding

Dogs are purchased under a variety of circumstances. According to a poll of dog guardians by Ipsos Reid (2008), companion dogs in Canada originate from the following places, in order of frequency: breeders, friends/relatives, shelters, advertisements for a free dog, pet stores, offspring of owned dogs, picked up as stray, and veterinarians. Despite these statistics, all companion dogs at one point originated from a brood bitch. In some cases, such as what is common on First Nation reserves in northern BC, free-roaming intact dogs impregnate intact bitches. Puppies that are accidentally bred live out their lives as stray dogs, are given to friends and neighbours, sold or given to small-scale pet stores, put in online and print classifieds, or surrendered to shelters.

2.2.1. Economic Model

This research refers to intentionally bred dogs. Puppies that are intentionally bred and can be registered are usually sold directly to the buyer. Breeders publicize their puppies through online and print classifieds, as well as websites and through the registration organization, such as the CKC. These sales require contracts with the buyer, mandating a variety of conditions including return of the dog to the breeder if the buyer is no longer able to keep the dog, notification of any signs of genetic illness, and spaying or neutering the dog. Reputable breeders compensate for problems of information asymmetry and negative externalities for the public by providing genetic information, being honest about where and how the puppies were raised, and requiring the return of the dog upon any issues. Because such breeders assume the risks of producing a poorly bred dog, they have a strong incentive to behave properly and convey accurate information to buyers.

Intentionally bred puppies that cannot be registered with a breed registry are sold to pet dealers, pet stores, or directly to the buyer through websites, ads in online and print classifieds, or at livestock auctions. Most puppies sold at pet stores in Canada are imported from the United States through pet dealers such as the large and well-known Hunte Corporation (CBC Marketplace, 2009). These potentially disreputable breeders cause information asymmetry and negative externalities as a result of their poor breeding practices. This significantly increases the lifetime costs of the dog to the purchaser, and the breeder does not stand to bear these costs.

A dog breeder must make decisions about how many resources to devote to each dog. In some cases, the welfare of the dog is the primary concern, and the price of the dog is high to cover the necessary time and money dedicated to creating a physically and psychologically sound puppy. In other cases, minimizing costs is the breeder's primary concern, and limited resources are devoted to the dog. For the purposes of clarity and for the development of an economic model, I will refer to puppies from reputable breeders as "high-quality" and puppies from disreputable breeders as "low-quality." I recognize that in reality, the quality of a puppy falls along a continuum.

In some instances, puppies are sold in pet stores at a high price. The high price could be due to veterinary costs as a result of illness or a high profit margin rather than

the inputs and care associated with high-quality puppies (BC SPCA employee, personal communication, December 15, 2012). Purchasers of these puppies, believing that price is correlated to quality, experience adverse selection. Because of the time it takes for genetic and social problems to arise in the puppy, the high veterinary and training costs are not immediately apparent and the relationship between buyer and seller results in moral hazard.

With the introduction of policies that decrease the information asymmetry and negative externalities, reputable breeders are marginally affected because they were already engaging in the higher-cost practices. Thus, the purchasers of their high-quality puppies will face little increase in price. In contrast, disreputable breeders will need to respond to more stringent policies by additional costly inputs; this will cause some such breeders to leave the industry and the remaining breeders to charge higher prices reflecting their additional costs. Figure 1 illustrates the situation of the reputable breeders in terms of their supply curve for puppies without the policy as S^H ; their supply curve is shifted upward only a small amount to S^{H*} reflecting the small increase in their costs, such as obtaining a licence. Figure 2 illustrates the disreputable breeders' supply curve for puppies without the policy as S^L , which is much lower than the counterpart supply curve for the high-quality breeders on account of their skimping on costly inputs. With a policy in place, disreputable breeders' supply curve shifts up sharply to S^{L*} because some leave the industry and others now face much higher costs that they were previously avoiding, such as genetic testing.

On the consumer side, again the market is somewhat segmented between buyers who are principally attached to the high-quality sector and those who mostly buy in the low-quality sector. In the high-quality market, consumers have relatively low responsiveness to variations in price, so that their initial demand curve D^H is relatively price inelastic. In the low-quality market, consumers are typically less informed about quality issues or care less about the longer-term costs of dog ownership, such as the potential for higher future veterinary costs. This segment of the market also includes buyers who have lower incomes and less ability to pay either the up-front cost of buying a puppy or the longer-term costs if that puppy grows to have problems; thus, some of these buyers will be more prone to abandon their dog when costs increase. The

demand curve in the low-quality market is likely more price-responsive, such as D^L (flatter and more price elastic) on account of including some lower-income buyers.

Figure 1: High-Quality Market

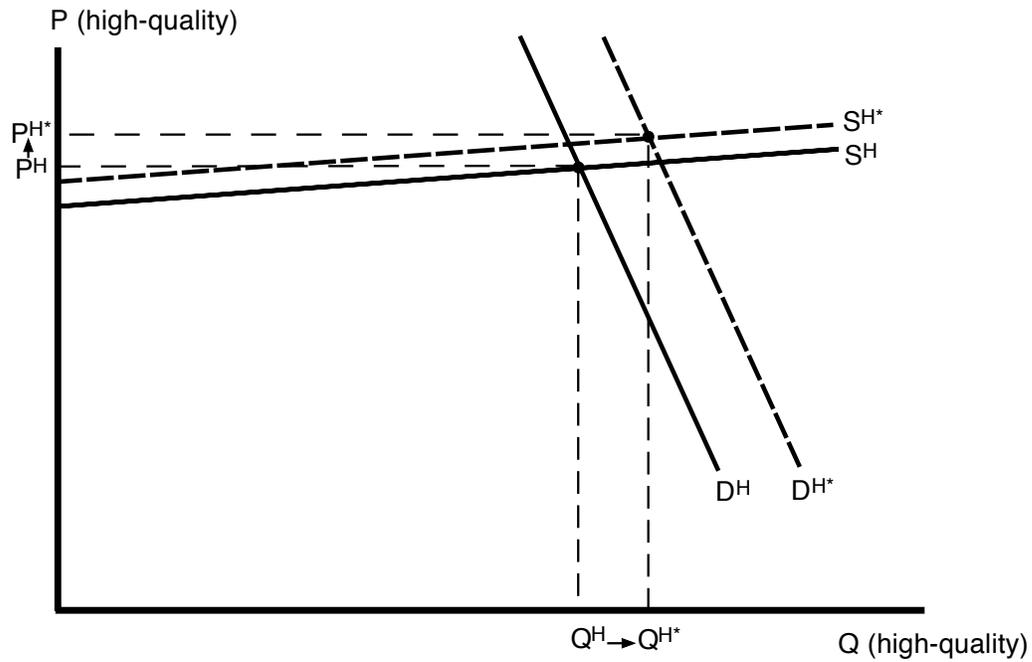
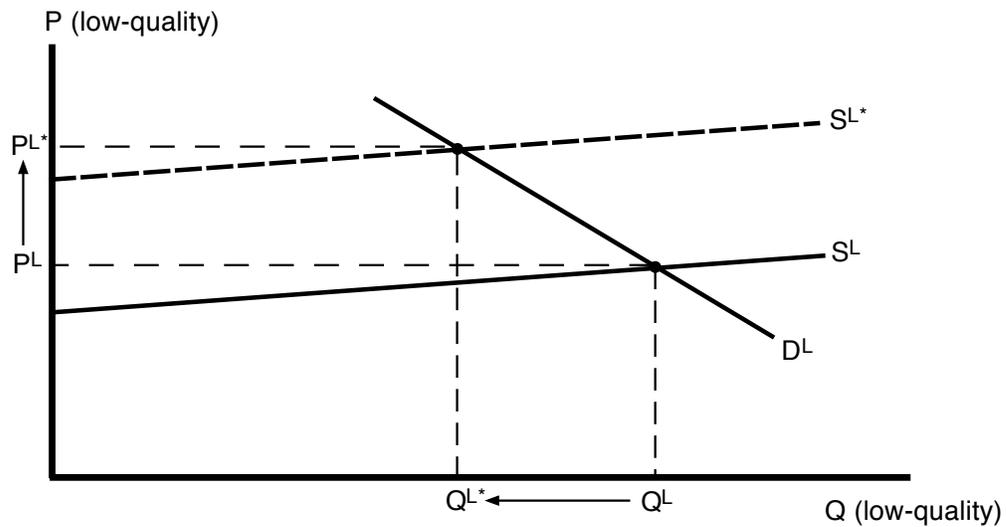


Figure 2: Low-Quality Market



With supply and demand curves in the two markets as shown in the two figures, we can now illustrate the initial market outcomes with no policy and then the effects of applying a policy on both price and quantity in each market. Consider first the low-quality market, in Figure 2, which has an equilibrium quantity of Q_L and price of P_L without the policy. Imposing the policy induces the cited shift in that market's supply curve, with resulting decrease in quantity to Q_L^* and increase in price to P_L^* . Thus, substantially fewer low-quality puppies are bred and sold with the policy, and the puppies from that sector will still be of higher quality than they were without the policy, although not raised to the quality of puppies in the high-quality sector. The price increase for low-quality puppies is likely to be large because costs in that sector are substantially increased due to the policy, and this change will induce some previous purchasers not to buy at all.

Next consider the outcomes in the high-quality puppy market both without the policy and with the policy, as shown in Figure 1. Without the policy that market's equilibrium will have quantity Q_H and price P_H . Implementation of the policy will shift the supply curve up a bit, as noted, but in addition the demand curve for high-quality puppies will also be shifted to the right, to D^{H^*} ; this results from some purchasers in the market for low-quality puppies shifting to the high-quality market because now low-quality puppies have become relatively pricier.¹ Thus, the equilibrium outcome in the high-quality puppy market will be a result of both a supply curve shift and a demand curve shift; the policy will increase the quantity of high quality puppies, to Q_H^* , and also raise the price to P_H^* although the latter increase is likely to be small since cost hikes in that market will also be small.

This simple economic modeling of the effects of policies imposing higher standards for the breeding of puppies yields important qualitative findings. Breeders of lower-quality puppies will now be producing puppies of better quality than previously,

¹ The demand curve for any particular commodity, such as high-quality puppies, is a function of its own price as well as the prices of other commodities that are important substitutes, such as low-quality puppies. We can ignore the countervailing impact on the demand for low-quality puppies resulting from the price increase for high-quality puppies because the latter will be small. Supply curves for both markets are illustrated as relatively price elastic on account of the ease of entry and exit by actual and potential producers.

and their share of the total market will decline relative to higher-quality breeders. The overall average price of puppies—in the low- and high-quality markets combined—will rise, though this increase is mostly due to the price spike in the low-quality market. The total number of puppies produced and purchased will decline since the increase in high-quality puppies is more than offset by the much larger decrease in low-quality puppies. Thus the average overall “quality” of all puppies will have increased, including a partial improvement in the quality of puppies in the low-quality market as surviving producers respond to the institution of effective policies.

Consumers formerly buying in the low-quality market who cannot afford the substantial price increase will no longer acquire a puppy. These individuals would be unable to afford the long-term costs to compensate for poor breeding practices; they would be likely to surrender or abandon the dog later on. This decrease in irresponsible buyers would benefit the public. Some of these consumers will remain in the lower-quality market and pay the higher prices but they will be getting puppies of a higher quality than without the policy. Some consumers will shift to the breeders of high-quality puppies since those prices will have declined relative to the now increased price of puppies from lower-quality breeders. In both cases, consumers will be better off in the long run even with higher up-front prices for puppies because they will enjoy decreased total costs over the life cycle of their dog. If puppy sales are banned in pet stores, their previous customers will switch to either the high-quality market or the now-improved low-quality market for puppies, while some will drop out of the market altogether.

2.3. Animal Welfare

“the question is not, Can they *reason*? nor, Can they *talk*? but, Can they *suffer*?”
Jeremy Bentham

2.3.1. What is Animal Welfare?

As noted in the previous section, multiple concerns are commonly expressed about welfare in the dog-breeding industry. Animal welfare is the physical and psychological well-being of a non-human animal (Hewson, 2003). Varied approaches emphasize different aspects of animal welfare. The first is an emphasis on the body: its

physical health and biological functioning. Disease, injury, and malnutrition are all measurable factors (Hewson, 2003; Fraser, 2008; Vapnek & Chapman, 2009). The second aspect is less commonly used and focuses on the affective (feeling) state of animals, such as pain, distress, and hunger. This concept of animal welfare is measured primarily using behavioural outcomes (Hewson, 2003; Fraser, 2008; Vapnek & Chapman, 2009), although physiological measures are also widely used to assess affective states such as stress and pain. In the dog-breeding industry, physical measures of well-being—such as whether a dog is emaciated or suffering from an injury—are more commonly used than behavioural measures. The third aspect is the most controversial: being free to perform natural behaviours. This animal welfare concern is challenging because it can contradict the other two measures of well-being (Hewson, 2003; Ohl & Chapman, 2010). Domesticated animals are motivated to perform some natural behaviours that can be detrimental to their well-being, such as a dog who would eat endless amounts of food and die from bloat (twisted stomach) given the opportunity. In addition, some natural behaviours, such as the fearful fleeing of a predator, are likely unnecessary to an animal's positive well-being within a confined environment.

One widely accepted conceptualization of what animals need to have good welfare consists of five dimensions, or “freedoms.” It originated from the concepts outlined in the Brambell Committee Review published in 1965 in the UK. Webster (1994) and Vapnek and Campbell (2010) both published the most recent version, updated by the United Kingdom Farm Animal Welfare Council in 1993. The five freedoms are:

1. Freedom from thirst, hunger and malnutrition
2. Freedom from discomfort
3. Freedom from pain, injury and disease
4. Freedom from fear and distress
5. Freedom to express normal behaviour

The freedom to express normal behaviour can conflict with the other four freedoms. Ohl and van der Staay (2012) take a different approach. They express animal welfare as a continuum from bad to good, from suffering to positive, rather than as a binary “bad” or

“good” state (Mench & Duncan, 1998). The intention, then, is to work towards positive well-being rather than a neutral acceptable state of being. Ohl and van der Staay (2012) suggest that animal welfare is the freedom to adequately react to or cope with negative states rather than the freedom from adverse conditions. They state that an animal should have “the freedom to display normal behavioural patterns that allow the animal to adapt to the demands of the prevailing environmental circumstances and enable it to reach a state that it perceives as positive” (p. 17). This conception of animal welfare is being used in newly established guidelines for the care of animals, such as the *Guidelines for Standards of Care in Animal Shelters* established in 2010 by the American Association of Shelter Veterinarians, by denoting what must occur to avoid suffering, what should occur to promote well-being, and the ideal.

2.3.2. Why Does Animal Welfare Matter in Policy?

Animal welfare is related to public health, food safety, and in some cases economic development (Vapnek & Chapman, 2009). Thus, public policy analysts must consider animal welfare science in policy making. Analysts should also be keenly aware of the relevant animal welfare scientific standards because citizens who are concerned about animal welfare issues can be expected to pressure the government to set and enforce standards (Vapnek & Chapman, 2009). As Hubrecht states,

Most people would agree, on basic moral or humanitarian grounds, that we have a responsibility to care for dogs, no matter why and for whatever purpose we keep them. But in order to provide such care, we need to make sensible decisions concerning what constitutes acceptable systems of housing, methods of transport, medical care, euthanasia, and so on. (1995, p. 180)

With these kinds of moral considerations for animal welfare in mind, the next three sections outline the welfare concerns in dog breeding and the potential policy implications for each.

2.3.3. Summary of Animal Welfare Concerns about Pet Shops

A study by Serpell and Jagoe (1995) found that dogs bought at pet shops were significantly more likely to have behavioural problems than dogs obtained directly from

breeders or friends. Researchers and animal welfare organizations discuss two primary concerns about pet shops: where the puppies are sourced from and how they are treated once they are in the shop. The source of pet store puppies will be covered in the next section, but as mentioned previously, they should never come from CKC registered breeders because of the CKC code of practice (<http://www.ckc.ca>). The time spent in a pet store is unlike the home environment. Some do not provide an enriched environment allowing for natural behaviours such as hiding, playing, and developing a human bond (Coppinger & Coppinger, 2001). A puppy is malleable, but if left in a kennel environment beyond the critical period, it too may not readily adapt to life in a home environment (Coppinger & Coppinger, 2001; McMillan et al., 2011; Scott & Fuller, 1965).

2.3.4. *Summary of Welfare Concerns about Commercial Breeders and Hobby Breeders*

Some commercial breeders and hobby breeders view breeding dogs as stock, of value solely for their ability to produce more puppies. Temperament is secondary, if taken into consideration at all, resulting in behaviourally unsound dogs (Lockwood, 1995). Dogs may also undergo inadequate or traumatic socialization during the critical period, which could “predispose them to develop inappropriate adult behaviour” (Serpell & Jagoe, 1995, p. 92). As an unregulated industry, the companion dog-breeding industry has not adopted self-regulation or self-auditing practices (Coppinger & Coppinger, 2001). Breeders act independently, and as a result, widely adopted industry welfare practices do not develop.

A recent study of former breeding dogs by McMillan, Duffy, and Serpell (2011) found that they present with “a variety of abnormal behaviours consistent with the effects of poor socialization and stimulus deprivation in early life” (p. 92). These behaviours include some of the responses mentioned previously, such as extreme fear of strangers, stereotypies, and reduced trainability. Reduced trainability is thought to stem from both genetic brain development deficiencies and inability to relate to humans because of the lack of socialization. This study is significant because it demonstrates the necessity of positive socialization and careful genetic consideration by breeders.

Commercial and hobby breeders in Canada have increasingly been pinpointed as an area of concern for health-related welfare issues. Direct health-related welfare concerns are easier to prosecute under animal cruelty legislation than concerns about socialization. In British Columbia, breeders have been charged and convicted related to concerns of grooming, cleanliness of living conditions, access to food and water, and access to medical care (BC SPCA Cruelty Investigations Department employee, personal communication, June 21, 2012).

2.4. Welfare Concerns in Dog Breeding: An In Depth Review of Scientific Studies

2.4.1. Genetics

Dogs have been selectively bred to promote some physical and behavioural traits and diminish others. The process of selective breeding of dogs was first formalized in the UK in 1873 with the creation of the UK Kennel Club (Collins, Asher, Summer, & McGreevy, 2011). Over 100 countries have established kennel clubs to register purebred pedigree dogs. Dog breeders who are deemed reputable by animal welfare organizations ensure that all dogs are functionally healthy with good physical and mental well-being (Indrebo, 2008). Scientists have found that many breeders do not take these factors into consideration when breeding, resulting in physical deformities, increased risk of disease, and increased incidence of anxiety, fear, and aggression (Bradley, 2006; Collins et al., 2011; Indrebo, 2008; Lockwood, 1995; Mugford, 2007; Scott & Fuller, 1965; Serpell & Jagoe, 1995; Voris et al., 2011).

Genetics: Conformation and Welfare

In some cases, a direct correlation arises between a desired physical characteristic and suffering of the animal (Coppinger & Coppinger, 2001). One of the most egregious examples of this is the shortened snout of the English bulldog and the degrees of respiratory distress these dogs experience (Hubrecht, 1995). Of the most popular 50 breeds in 2009, each was found to be predisposed to at least one disorder linked to its required conformation (Asher, Diesel, Summers, McGreevy, & Collins, 2009; Collins et al., 2011). Bone dysplasia, for example, has been linked to the long back

conformation of some breeds, such as Basset Hounds and Corgis (Parker et al., 2009). Some breeders consider physical traits as 'the more the better,' resulting in exaggerated features particular to individual breeds, thereby predisposing them to poor welfare (Collins et al., 2011; HSUS 2012; Hubrecht, 1995; Indrebo, 2008).

Genetics: Unintentional Physical Deformities and Disease

Because of poorly understood gene interactions and the polygenic nature of many traits, genetic selection for traits must not be too narrow or other undesirable traits may appear in the form of genetic deformity or disease (Coppinger & Coppinger, 2001; Hubrecht, 1995; Scott & Fuller, 1965). Some common genetic physical deformities and diseases in dogs include hip or elbow dysplasia, floating kneecaps, deafness, immune disorders, eye diseases, and muscle development disorders (Bell, n.d; HSUS, 2012; Mugford, 2007). For many inherited disorders, genetic tests are now available to help prevent breeding dogs with poor health outcomes. To avoid genetic deformities and disease, prospective breeding dogs can be genetically screened for heritable diseases common to the breed. In the opinion of Dr. Bell, a professor of genetics at Tufts Cummings School of Veterinary Medicine, forgoing genetic testing is unethical (Bell, 2011).

Genetic disorders result in suffering for the dog in the form of pain, disease, and discomfort. They also may result in high veterinary costs for the guardian of the dog as well as costs for community animal shelters in the case of either treatment of the disorder if mild or euthanasia if severe. Some breeders do not conduct genetic tests due to lack of knowledge. Other breeders avoid genetic testing because of the cost. As an example, genetic tests from the company OptiGen run between \$75 and \$200 (<http://optigen.com>). For dog breeding to be sustainable and promote animal welfare, consumers must be willing to pay a higher cost for dogs to compensate for the genetic testing (Collins et al., 2011; Webster, 1994). Assuming three 1-time genetic tests to the dam and sire at a total cost of \$600, and assuming six litters of four puppies, the ultimate cost to the consumer could be approximately \$25 per puppy. To attempt to overcome the market asymmetry of unregulated breeding and consumer concerns, some pet dealers provide a health guarantee for the replacement of puppies with genetic defects. Bell (n.d.) asserts that using a health guarantee as a replacement for genetic testing is

unethical and irresponsible for breeders due to the emotional bond developed between the dog and its guardian.

The American Kennel Club (AKC) provides its breeders with a list of prevalent genetic and congenital diseases for each breed. Research by Voris et al. (2011) found that AKC Parent Club breeders were more likely to screen breeding animals than non-AKC breeders found over the internet, with 84 per cent of AKC Parent Club breeders reporting having conducted breed specific health screening compared against 28 per cent of non-AKC breeders. Additionally, 80 per cent of AKC Parent Club breeders had a spay/neuter contract in place (mandating the puppy be spayed or neutered) compared with 24 per cent of non-AKC breeders found over the internet. Spay/neuter contracts are in place more often with kennel club registered breeders because they seek to prevent dogs from breeding that have not been genetically tested and thus could perpetuate potentially undesirable traits (Voris et al., 2011). The CKC provides breed specific conformation and temperament standards online and its code of practice encourages but does not require breeders to test for health and genetic problems (<http://www.ckc.ca>). Commercial and hobby breeders in Canada and the United States are also not required to monitor each dog's genetic make-up (Collins et al., 2011).

Genetics: Anxiety, Fear, and Aggression

Some anxiety, fear, and aggression in dogs originate from internal factors, such as genetics. In other cases, these traits are attributable to external factors, such as socialization, training, and victimization (Jenson, 2007; Lockwood, 1995). Multiple studies have found correlation between stress in the pregnant mother and emotional reactivity in their offspring (McMillan, et al., 2011). Behavioural and psychological traits that are internalized by the mother may contribute to increased fear and anxiety in the offspring (Serpell & Jagoe, 1995).

Dog biting can occur because of anxiety, fear, and aggression. The breeding-dog selection process can have an impact on the level of aggression of the puppies (Serpell & Jagoe, 1995). Breeders can select dogs who do not guard their food, do not react defensively when handled, and do not react negatively to strangers (Bradley, 2006).

A Good Genetic System

According to Collins et al. (2011), the solution going forward is a system of dog breeding that prioritizes health and welfare. They recommend that the dog-breeding industry:

1. Develop breeding objectives
2. Use welfare and economic rationales to set priorities for selection criteria to improve the efficiency of evaluating the approach
3. Develop operational tools, health screens, and DNA tests
4. Develop a plan for breeding dog selection
5. Measure progress and success using a national breeding program (p. 152)

Indrebo (2008) posits a set of ten principles she argues should be used as breeding standards. These principles, when included in the plan for breeding dog selection, provide for the consideration of genetics, socialization, and welfare in dog breeding. Ideal socialization and welfare for companion dogs can occur only if these scientifically-based genetic standards are met.

2.4.2. *Physical Health*

The physical health of the dogs in a breeding establishment is substantially influenced by the environment and living conditions. The Association of Shelter Veterinarians and the Canadian Veterinary Medical Association (CVMA) have both developed codes of practice that outline guidelines for care to reduce the risk of disease for dogs housed in a kennel environment. The codes include the following necessary conditions: operating within a capacity to care for all animals, adequate housing, proper temperature and humidity controlled ventilation, proper cleaning and disinfection processes, appropriate pest control, nutritious and contaminant-free food, potable water, and adequately trained personnel. Additionally, appropriate and timely veterinary care and grooming must be provided (CVMA, 2007; Newbury et al., 2010). Puppies must also experience normal physical activity, as lack of movement hampers adequate physical development (Coppinger & Zuccotti, 1999).

Additionally, dogs should be provided with a low-stress environment. Dogs that suffer from prolonged periods of high stress show an increased risk of developing disease (Jensen, 2007). To decrease their chances developing disease, puppies should remain with their mother for at least seven weeks. One study found that puppies separated from the dam at six weeks experienced increased mortality and susceptibility to disease compared to puppies that remained with the dam for twelve weeks (Serpell & Jagoe, 1995). In most breeding operations, puppies are weaned at seven weeks due to an understanding that the brain and body functioning changes slightly at this point, making them more adaptable (Scott & Fuller, 1965).

Animal welfare and economic arguments exist for maintaining the physical health of dogs. Although guardians of puppies that experience environment related diseases are often reimbursed or have the puppies replaced by the pet sellers, the puppies still suffer. Puppies and adult dogs with chronic conditions can be neglected because of the costs associated with veterinary care and are sometimes surrendered to shelters because of these barriers. In 2012, 153 guardians who surrendered their dogs to BC Society for the Prevention of Cruelty to Animals (BC SPCA) animal shelters cited “vet costs” as the primary reason and another 192 cited “can’t afford” as the primary reason out of 3476 surrendered dogs and puppies (BC SPCA, 2012)². Thus, 10 per cent of all dogs surrendered were reportedly for reasons of financial costs, at least some of which could be attributed to poor physical and mental health outcomes as a result of breeder carelessness. This number may be even higher due to hesitation or shame in citing financial concerns as a reason for abandonment (BC SPCA employee, personal communication, December 15, 2012).

2.4.3. *Psychological Health*

Scientists have identified four distinct periods of puppy development: neonatal, transition, socialization, and juvenile (Jensen, 2007; Scott & Fuller, 1965). The socialization period is also called the critical period for social development (Coppinger &

² Thirteen per cent of owners surrendering dogs did not provide a reason for surrender.

Coppinger, 2001; Scott & Fuller, 1965; Serpell & Jagoe, 1995) and is more recently known as the sensitive period (McMillan, et al., 2011).

The sensitive period is arguably the most important period for psychological and behavioural development in a dog's life. During this time, puppies are particularly influenced by to environmental conditions (Indrebo, 2008; Serpell & Jagoe, 1995; Svartberg, 2007). The exact time of the sensitive period may vary with the breed, but in most scientists' views the range is from two to twelve weeks, with a peak in sensitivity between six and eight weeks (Coppinger & Coppinger, 2001; Jensen, 2007; Scott & Fuller, 1965; Serpell & Jagoe, 1995; Svartberg, 2007). During this period, the neural foundations for social relationships are formed with any species the puppy is exposed to in a positive manner. Puppies determine what species and individuals are their "chief adult relatives" (Scott & Fuller, 1965, p. 111). As Coppinger & Coppinger (2001) put it, "dominance hierarchies are formed and dogs learn and practice their submissive behaviours. They learn to beg for food, whom to beg from, and how to turn begging into social greetings. They learn what species they belong to" (p. 106).

Early handling and stress related to handling during the sensitive period produce a change in the dog's hypothalamic-pituitary-adrenal system, which is the main physiological mechanism for the body's response to stress. These changes enable the dog to better cope with similar stressful situations later in life (Serpell & Jagoe, 1995). In experiments conducted by Scott and Fuller (1965), daily positive handling effectively dissipated the initial fear of humans that had developed at five weeks of age. Alternatively, puppies raised with little to no positive human contact during the critical period develop a fear of humans that is challenging to overcome later in life. This fear response can be to any stimulus to which the puppy was not exposed during its sensitive period (Serpell & Jagoe, 1995). If the fear response is severe, as with traumatic stress, permanent psychological damage may result. The extent of the response is breed-dependent, with some dogs adapting better than others (Scott & Fuller, 1965).

Dogs are social; they are capable of interpreting human signals and seeking human attention to communicate (Coppinger & Zuccotti, 1999; Rehn, 2011). Dogs that receive little or no socialization during the critical period have little chance of functioning well in human society. If the dog's life involves interactions with humans, this fear may

be detrimental to the welfare of the dog in the long term and can create an environment of chronic stress (Beerda, Schilder, van Hooff, & de Vries, 1997; Mugford, 2007). Brood bitches and studs that are reared in social isolation experience fear and stress throughout their lives. If the stress is severe for the brood bitch, future generations of their offspring will actually have altered physiological stress systems (McMillan et al., 2011; Serpell & Jagoe, 1995).

When not adequately socialized or when housed in a way that creates a stressful environment, breeding dogs often develop stereotypies: repeated behaviour patterns that appear to have no adaptive function, such as incessant barking. Stereotypies are common where breeding dogs are limited in their ability to express natural behaviours (Coppinger & Zuccotti, 1999; Hubrecht, 1995; Jensen, 2007; Stephen & Ledger, 2005). For dogs, stereotypies include circling, pacing, repetitive grooming, self-biting, and many other behaviours. Dogs that are kennelled in poor environments have shown elevated levels of salivary, urinary, and plasma cortisol, all physiological indicators of stress (Beerda et al., 1997; Stephen & Ledger, 2005). Dogs must have environmental enrichments in place to keep from developing stereotypies or other stress indicators (Coppinger & Zuccotti, 1999; Hubrecht, 1995; Stephen & Ledger, 2005). Enrichments include social interaction with people and other dogs, as well as objects to play with and other species-appropriate auditory, visual, or olfactory stimuli (Coppinger & Zuccotti, 1999).

As discussed in section 2.2.3 on behavioural genetics, fear can result in both avoidance and biting behaviours. Lockwood (1995) identifies a multi-step approach to diminishing the amount of dog bites in a community, with one step focusing on eliminating the mass production of dogs that have poor genetic composition and are under-socialized. Fear and other negative behavioural traits can also result in surrendered companion dogs. Hart (1995) found that studies reported between 20 and 26 per cent of dogs surrendered to shelters were attributed to various behavioural problems. The numbers at the BC SPCA animal shelters are lower, with only 244 of 3476 or 7 per cent of owners citing behavioural problems as the primary reason for surrender (BC SPCA, 2012).

2.5. Canadian Legislative Context of Dog Breeding

No numbers are available to document the dog-breeding industry. Animals fall under agricultural jurisdiction in Canada and are thus considered a concurrent power under *The Constitution Act*, 1867, 30 & 31 Vict, c 3. Statistics Canada takes a census every five years of agricultural operators. Dogs are excluded from the census with the exception of breeding sled dogs in the Yukon, Nunavut, and the Northwest Territories (Statistics Canada, 2012). At the federal level, animal cruelty is regulated under property consideration in the *Criminal Code*, R.S.C. 1985, c. C-46, (the “*Criminal Code*”) sections 428-447. Since 1999, different members of parliament have recommended a bill to amend these sections with no success (Hall, 2006). Agriculture Canada enacted legislation in 1995 that slowed the importation of dogs for commercial reasons such as immediate sale or breeding (Gormley & Berry, 2009). Dogs imported for these purposes now require an import permit, a micro-chip, vaccinations, and a health inspection from a veterinarian (CFIA, 2010). This legislation is thought to have slowed the import of puppies into Canada and increased the number produced in Canadian commercial breeding establishments (CFHS, n.d.; Gormley & Berry, 2009).

Each province has the power to develop laws concerning animal welfare and cruelty and to regulate businesses (Gormley & Berry, 2009). Municipalities in some provinces also have the ability to regulate businesses. Across the country, dog breeding is a mostly unregulated industry, with the exception of recent regulations enacted by New Brunswick, Quebec, Manitoba, and a number of municipalities. No statistics are published on the number of dogs imported from the United States into Canada (CBC Marketplace, 2009). Additionally, the number of breeders in Canada has not been documented. All policies that regulate dog breeding in Canada will be summarized in the jurisdictional review of existing policies in section 4.1.5.

2.6. State of Dog Breeding in British Columbia

2.6.1. *The Prevention of Cruelty to Animals Act and the BC SPCA*

The BC SPCA is a multi-faceted, not-for-profit animal welfare organization. The *Prevention of Cruelty to Animals Act*, R.S.B.C. 1996, c.372 (the “*PCA Act*”) provides the BC SPCA with the power to investigate and take action in instances of animal cruelty. It was first passed in 1895 and has been modified periodically (<http://spca.bc.ca>). The *PCA Act* allows the BC SPCA to recommend the appointment of authorized agents to enforce the act. Their Cruelty Investigations Department’s Special Provincial Constables (CID SPCs) investigate reports of cruelty and ensure that the guardian takes the necessary steps to relieve the distress of the animal. In some cases, the CID recommends charges to Crown Counsel to prosecute individuals who have caused or allowed one or more animals to be in distress (<http://spca.bc.ca>). The *PCA Act* part 1 section 1 (2) defines the distress of an animal as one that is:

- (a) deprived of adequate food, water, shelter, ventilation, light, space, exercise, care or veterinary treatment,
- (a.1) kept in conditions that are unsanitary,
- (a.2) not protected from excessive heat or cold,
- (b) injured, sick, in pain or suffering, or
- (c) abused or neglected.

When an animal is found in distress, the SPC can take a variety of actions. This system is currently dependent on acting upon alerts from the concerned members of the public who believe they have witnessed one or more animals in distress. No provincial regulation is in place specific to dog breeding or dog sales, and dog breeders are not licensed. Additionally, the CID does not track data on how many investigations are conducted on breeders each year (BC SPCA Cruelty Investigations Department employee, personal communication, June 21, 2012). Without a regulatory and licensing framework or cruelty data, I cannot accurately determine the extent of poor welfare and socialization conditions for dogs in BC.

The BC SPCA animal shelter statistics mentioned in section 2.2.4 and 2.2.5 account for only a portion of animal control and kennelling contracts in the province.

Municipalities contract with various organizations to provide these services but no statistics are gathered across the province. Additionally, dogs with physical and behavioural problems are given away through classified websites or to rescue organizations. Therefore, the number of dogs surrendered in BC for financial reasons and behavioural problems is likely much higher than the data reported in this review.

2.6.2. *B.C. Municipal Bylaws*

Municipalities in BC have taken a number of different approaches to regulate dog breeding. Some require only that the breeder have a licence and meet zoning requirements. Others stipulate specific sanitary and sound requirements. The majority, however, do not regulate dog breeding at all. A review of BC municipal and regional district bylaws regulating dog breeding is found in section 4.1.5.

2.7. Conclusion

Animal welfare violations, public safety concerns, and individual and taxpayer costs arise because of the dog-breeding industry. Scientific research has demonstrated a number of considerations that must be applied when breeding and raising dogs in order to reduce these adverse consequences. Varied evidence suggests that these considerations are rarely fully followed by breeders; however, no accurate numbers exist on this matter. Society is bearing the cost of an unregulated, individualized, and competitive industry through dog bites, veterinary costs, and shelter costs.

3. Methodology

This research is intended primarily to be a framework for Canadian provinces to use when considering dog breeding regulations. It also serves as an analysis tool for countries, provinces/states and municipalities globally. This research aids in the process of formulating and implementing new or updated policies to address socialization and other welfare concerns in dog breeding. The background combines science and colloquial knowledge to describe the current gaps in policy in Canada and British Columbia. The jurisdictional review identifies best practices for addressing the policy gaps. The semi-structured interviews provide information to supplement the jurisdictional review and the policy option analysis. This mixed method approach allowed me to review all aspects of the issue.

3.1. Method to Develop Background

Dog-breeding concerns have historically been addressed through emotionally charged websites, news reports, and lobbying efforts. No scholarly approach has been published to review the policy aspects of dog-breeding issues. This gap in policy reports provided the opportunity for an evidence-based discussion of the scientific literature and legislative context of dog breeding. In this study, I collected and reviewed all available peer-reviewed scientific literature on the socialization, health, and genetics of dogs and in some cases, correlated studies of other animals. I used books and articles from the Simon Fraser University library and library databases. In some cases, where academic sources were not available, I reviewed websites and published reports of relevant organizations, including dog registries, animal welfare organizations, the Canadian Veterinary Medical Association, and the Canadian and British Columbian governments.

3.2. Method to Develop Jurisdictional Review

To identify best practices for addressing the policy problem, I conducted a jurisdictional review. To avoid selection bias, I chose only cases that included the following criteria: countries with an International Monetary Fund nominal GDP per capita higher than US \$38,000 and with English as the primary official language. These characteristics help to ensure that the legal, financial, and animal welfare systems are similar in each policy jurisdiction. I used the websites of governments and animal welfare organizations as well as data gathered from interviews to review current approaches to policy. In the analysis, I summarized the limitations of the policies and stakeholder perspectives using existing reports and interview data.

3.3. Interviews

To help assess the policy options against a set of criteria, I interviewed professional stakeholders. My selections constituted individuals who are experts in the field, have participated in the political process of developing the policy, or currently participate in the enforcement of the policy. I also interviewed representatives of the BC SPCA and a local political representative who has concerns about the unregulated nature of dog breeding. In some cases, this provided information for the literature review where no other sources were available.

Interviews were conducted using purposive sampling. I identified primary contacts that referred me to the individuals that I should interview for the research. I contacted or allowed the initial contact to pass my information on to the recommended individuals. In total, I secured 14 interviews: 10 from experts in other jurisdictions and 4 from local stakeholders.

Because of the varied nature of the location and time commitment of participants, each had an offer to meet face to face where possible, speak by telephone, or complete the interview questions by email. I provided all participants with a consent statement and a description of my research. In some cases, the interview schedule was provided ahead of time. In other cases, the meeting was informal and the questions were not

provided ahead of time. Participants had the option to discontinue participation at any point in the research process and were in control of whether their name or the name of their organization was used. All participants chose to have their names remain confidential. Some participants also requested to keep the name of their organization confidential.

I used a semi-structured interview format. Participants who answered through email provided only answers to the questions asked without answering any additional follow-up questions. In-person interviews were less structured and provided opportunity for wider-ranging dialogue. In all cases, questions were tailored to the participant and the knowledge they were able to contribute to the subject area. Most in-person interviews were not recorded. The participants who did consent to have the interview recorded requested that no direct quotes be used. Because of this request to avoid quotations and the confidentiality requests, the interviews were used as supplementary material to the jurisdictional review and used to help guide the policy option analysis.

4. Analysis and Findings: Jurisdictional Review

The findings section has three components. In section 4.1, I review the laws and regulations in five countries pertaining to dog breeding. In section 4.2, I review the published and publicly available critiques of the limitations of the existing policies. In section 4.3, I review a recommendation from RSPCA Australia for the ideal dog breeding policy approach for a country.

4.1. Findings: Summary of Existing Policy Approaches

This section summarizes current dog breeding policies in Ireland, the United Kingdom (UK), Australia, the United States (US), and Canada. All of these countries were selected initially because their policies are written in English and they practice common law. These nations also share similar an International Monetary Fund nominal GDP per capita of over \$38,000 US. With similar linguistic and economic structure, I expect that the cultural approach to animal welfare in all of these countries is similar as well. A summary of existing animal welfare legislation in these countries appears in Appendix A.

4.1.1. *Ireland*

The Republic of Ireland has the most recently developed national regulation regarding dog breeding. This regulation is the Dog Breeding Establishments Act 2010. In 2004, the Irish Minister for the Environment, Heritage, and Local Government appointed a working group to respond to concerns for the mistreatment of dogs on what they call “puppy farms” (Ireland, 2005). The working group reviewed the available information on dog breeding and came up with a set of recommendations for adoption of regulation.

Like Canada, Ireland had no documented figures available for the number of dog breeding establishments. They determined that although the numbers do not exist, there was “clear evidence that a number of these enterprises are operating in a sub-standard manner with serious consequences for the welfare of dogs kept in these establishments” and decided to proceed with regulation (Ireland, 2005, p. 4)

Unlike Canada, Ireland has national legislation for dogs with the Control of Dogs Act 1986. The Dog Breeding Establishments Act is a regulation within the Control of Dogs Act. Ireland used an already existing national fee structure to license dogs and established a new class of licence fee for dogs kept in dog breeding establishments (DBE) to fund the new regulatory regime (Ireland, 2005). Table 1 enumerates the basic provisions of the act.

Table 1: Ireland: Dog Breeding Establishment Act 2010

Who qualifies?	Guardians who have six intact bitches over six months old. No maximum number of dogs.
Registry	Yes. A person who operates a DBE must submit application with name, address, address of the DBE, and applicable fee based on the number of bitches paid annually.
Inspection	Not mandatory. <ul style="list-style-type: none"> • Authorized persons may inspect any facility that they believe is being used to operate a DBE or any facility that has registered as a DBE: however, inspections are not systematic. • If the location is a primary dwelling, the authorized person may request permission to enter. If they do not obtain permission, they may obtain a warrant to inspect if they believe the dwelling is used as a DBE or if the address is registered as a DBE.
General animal welfare considerations	Yes. Considerations require that accommodation and equipment match the physical, behavioural, and social requirements of the dogs. They also require that the dog is protected from distress, injury, fear, and pain.
Genetic consideration	No. There is no mention of genetic testing or requirement of adopting standard genetic practices.
Physical health consideration	Yes. Considerations are made for food, drink, exercise, light, temperature, ventilation, cleanliness, size of living space, bedding, prevention of disease, fire safety, maximum litter numbers and times for bitches, health checks, and access to veterinary care. Considerations are not made for wire flooring.
Socialization consideration	No. Vague wording suggests that dogs should be allowed to have contact with humans in the exercise facility but does not suggest how much or the nature of the contact.
Record keeping requirement	Yes. All births, deaths, sale, or transfer must be recorded and all sales or transfers must be reported to the local authority.

Violations	If there is a violation, an authorized person may issue an improvement notice. If the operator does not make the improvements within a set amount of time, the registration will be revoked. If the operator continues to operate without registration they face a fine of up to €5,000 or imprisonment for a term not exceeding 6 months or both. Upon conviction on indictment the operator could face a fine of up to €100,000 or imprisonment for a term not exceeding 5 years or both.
Other special considerations	All dogs over eight weeks old must have a micro-chip and no dog may leave the DBE without a micro-chip.

4.1.2. United Kingdom

In 1973, the United Kingdom passed the original Breeding of Dogs Act 1973, c. 60, requiring the licensing of dog breeders. It was expanded in 1991 and then again in 1999, changing the title to the Breeding and Sale of Dogs (Welfare) Act 1999, c. 11. The council of a London borough or the council of a district of the United Kingdom has the authority to enforce this legislation. Table 2 describes the basic provisions of the act.

Table 2: United Kingdom: Breeding and Sale of Dogs (Welfare) Act 1999

Who qualifies?	All breeding establishments: Any premises (including a dwelling) where four or more litters are born to four or more brood bitches within a period of 12 months and are put up for sale during that time. No maximum number of dogs.
Registry	Yes. A person who operates a breeding establishment must apply for a licence to a local authority annually and a local authority may charge a fee of £80.00 for the licence and inspection.
Inspection	Yes. A local authority must appoint someone to inspect all operators who submit a breeding establishment licence application.
General animal welfare considerations	No. There is no mention of general animal welfare principles.
Genetic consideration	No. There is no mention of genetic testing or requirement of adopting standard genetic practices.
Physical health consideration	Yes. Considerations are made for food, drink, exercise, light, temperature, ventilation, cleanliness, size of living space, bedding, prevention of disease, fire safety, and maximum litter numbers and times for bitches. Considerations are not made for wire flooring, health checks, and access to veterinary care.
Socialization consideration	No. There is no wording considering socialization or handling.
Record keeping requirement	Yes. Operators must keep records in a form prescribed by regulations.

Violations	If there is a violation and someone is operating without a licence or is violating the conditions of a licence, the operator can be charged with an offense of imprisonment for up to three months, a fine of up to £2,500, and/or disqualified from keeping a breeding establishment for a length of time.
Other special considerations	None.

Reports and Recommendations

In 2010, several organizations concerned with the welfare of dogs in the UK formed an independent organization called the Advisory Council on the Welfare Issues of Dog Breeding (Council). The Council published a report in September 2012 entitled *The Advisory Council Breeding Standards for Dogs*. These standards were submitted to Ministers across the UK as a formal recommendation of the minimum standards that must be met by anyone who chooses to breed dogs (<http://dogadvisorycouncil.com/>). Concurrently, an organization entitled the Associate Parliamentary Group for Animal Welfare (APGAW) published a report entitled *A Healthier Future for Pedigree Dogs* in July 2012 to provide to the Council and to the government. This report makes a number of recommendations, including a lower threshold for number of dogs to require a dog breeding licence, education for the public and consumers, better breeding standards, mandatory micro-chipping, and better codes of practice (APGAW, 2011).

4.1.3. Australia

No national laws regulate animal welfare in Australia. Similar to Canada, each state and territory in Australia has legislation relating to the prevention of cruelty to animals (Sharman, 2004).

State

Table 3 summarizes the provisions of the state-level legislation that are relevant to dog breeding.

Table 3: Australia: State Provisions for Dog Breeding Regulation

State/Territory	Provisions for Dog Breeding Regulation
Australian Capital Territory	The <i>Domestic Animals Act 2000</i> requires all dogs be registered and have a micro-chip by the time they are 12 weeks old. A person with four or more dogs must apply for a multiple dog licence annually. A dog that is older than six months old must be fixed unless the owner applies for a permit. No inspection requirements exist. Additionally, the <i>Animal Welfare (Welfare of Dogs in the ACT) Code of Practice 2010</i> stipulates the standards that any caregiver of a dog should meet, including genetic, physical health, and socialization standards. Violators of this mandatory code of practice who do not comply with a written instruction to change their practice face a fine of 50-100 penalty units (for an individual, \$5,500-\$11,000, for a corporation, \$25,000-\$50,000).
New South Wales	The <i>Companion Animals Act 1998</i> mandates that all dogs have identification before they are sold and that all dogs are registered with the state by six months old. The regulation to the <i>PCA Act (Prevention of Cruelty to Animals Regulation 2012)</i> prescribes a code of conduct for all animal trades and requires that the relevant code of practice is followed, in this case, the <i>Animal Welfare Code of Practice—Breeding Dogs and Cats</i> of August 2009. This code stipulates the standards that any breeder must meet, including record keeping, genetic, physical health, and socialization standards. No inspection requirements exist. Violators of the code face a maximum fine of 50 penalty units (\$5,500) for an individual and 200 penalty units (\$22,000) for a corporation.
Northern Territory	No guideline, code of practice, licence, or inspection requirement exists.
Queensland	The <i>Animal Management (Cats and Dogs) Act 2008</i> mandates that all dogs sold or transferred must have a micro-chip implanted. An owner of a dog must register any dog that is 12 weeks of age or older with the local government and must renew at least every 3 years. No other provisions are in place for the care of dogs or dog breeding.
South Australia	Under the <i>Dog and Cat Management Act 1995</i> , a breeder must register their business with the registrar annually. No code or inspection requirements exist.
Tasmania	An animal welfare guideline in Tasmania exists as an advisory document that can be used to help determine whether a particular action or inaction is a breach of the animal welfare legislation. The <i>Animal Welfare Guideline: Breeding Dogs</i> , approved in January 2012, includes record keeping, genetic, physical health, and socialization recommendations. No licensing or inspection requirements exist.
Victoria	Under the <i>Domestic Animals Act 1994</i> and the <i>Domestic Animals Amendment (Puppy Farm Enforcement and Other Matters) Act 2011</i> a breeder must register their business with the local council annually. Breeders who belong to a registry and have fewer than 10 intact bitches do not have to register, nor do breeders who do not belong to a registry and have fewer than 3 intact bitches. Dog breeders must operate in accordance with the <i>Code of Practice for the Operation of Breeding and Rearing Establishments</i> . This code mandates record keeping and physical health requirements. No inspection requirements exist.
Western Australia	The <i>Dog Act 1976</i> permits a local government to issue a licence for an approved kennel establishment annually. No code of practice or inspection requirement exists.

In all the above cases, authorized agents have the ability to inspect premises other than a dwelling house. In the case of a dwelling house, in some instances the authorized agent may enter if the premise is registered as a domestic animal business. In other instances, the authorized agent must obtain a warrant to enter the premises without the permission of the owner.

Dog-breeding requirements vary significantly from state to state. The most stringent requirements are the mandatory codes of practice, which require that breeders care for all three aspects of their dogs' welfare: genetic, physical, and mental health. In all states, with the exception of the Northern Territory, all dogs must be registered with the state or local authority. However, in some instances, a dog business permit or licence can replace individual dog registrations and is granted based solely on an application. Australia does not require inspections before a licence is granted.

Municipal

The municipality of Gold Coast in Queensland developed a breeder permit pilot project. They established a code of practice for keeping and breeding dogs. It mandates a maximum of four breeding dogs and four adult non-breeding dogs to be kept on the property and a number of standards for genetics, physical health, and socialization. Every breeder must apply for an annual permit and must be inspected. Breeders must include their permit numbers in advertisements for the sale of dogs (Gold Coast City Council, 2009).

Reports and Recommendations

The RSPCA Australia met with representatives of stakeholders throughout the country to develop a solution to the animal welfare issues of commercial breeding. They identify key problems, desired outcomes, and recommendations for action in a report (RSPCA Australia, 2010). The recommendations include the following: 1) a national system whereby all dogs are registered and traceable to the person who bred the dog through micro-chipping and a mandatory registry; 2) enforceable, compulsory, and consistent minimum standards for the breeding of dogs; 3) regulations for the sale of dogs and protection of consumers, including a mechanism by which a consumer can make a complaint against a breeder; 4) address gaps in legislation and regulations

regarding the welfare of dogs to ensure effective enforcement; and 5) ensure that more educational materials are effectively provided to breeders and dog guardians.

4.1.4. United States

The animal welfare legislative systems in the United States and Canada are more complex than the systems in Ireland, the United Kingdom, and Australia. Different forms of animal welfare legislation occur at three levels: federal, state, and municipal. Consequently, various aspects of dog breeding and sales are regulated at different levels of government. This section reviews the national legislation, summarizes the state legislation by categories, and discusses municipal-level policy.

Federal

The United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) enforce animal policy at the national level. Congress originally passed the Laboratory Animal Welfare Act of 1966, P.L. 89-544 in 1966 and amended it in 1970, 1976, 1985, and 1990 (USDA, 2010a). It was originally intended to regulate dealers of cats and dogs, as well as those who used warm-blooded animals for laboratory use (USDA, n.d.). In 1970, it started being referred to as the Animal Welfare Act (AWA). In terms of regulations of the wholesale pet trade, the AWA has not changed significantly since 1966. Although the law is extensive and regulates significantly more than dog breeders, I will focus on the sections that apply to dog breeders as well as to dog “brokers,” third parties who sell dogs raised by a breeder.

Table 4: United States: Animal Welfare Act

Who qualifies?	A “dealer” of dogs: any person who, for compensation, transports, buys, sells, or negotiates the purchase or sale of any dog whether alive or dead for research, teaching, exhibition, use as a pet, hunting, security, or breeding purposes with the exception of a retail pet store or a breeder with three or fewer brood bitches on his/her premises. A breeder who sells directly to the public in person or through classified ads or the internet is exempt (USDA, 2012b). No maximum number of dogs.
Registry:	Yes. An operator who sells to a third party must apply for a Class A licence. A broker who acts as a third party must apply for a Class B licence. Both must pay an annual fee based on the annual dollar volume of business in regulated animals (USDA, 2005).

Inspection:	Yes. Upon application for a licence, the veterinarian of the operator or broker must visit the establishment and fill out a form for APHIS and verify the housing conditions and health of the animals. The inspector will then visit the establishment to conduct an audit. After the initial audit, follow-up audits are conducted using a risk-based inspection system with more frequent and in-depth inspections at problem facilities and fewer at those that are consistently in compliance (USDA, 2012b).
General animal welfare considerations:	No. There is no mention of general animal welfare principles.
Genetic consideration:	No. There is no mention of genetic testing or requirement of adopting standard genetic practices.
Physical health consideration:	Yes. Considerations are made for food, drink, exercise, light, indoor, temperature, ventilation, cleanliness, size of living space, bedding, prevention of disease, health checks, and access to veterinary care. Considerations are not made for wire flooring, fire safety, or maximum litter numbers and times for bitches.
Socialization consideration:	Minimal. A dog is required only to have positive physical contact with humans if it does not have sensory contact with another dog.
Record keeping requirement:	Yes. Dealers must document a number of records and have them available to be reviewed by the APHIS inspector.
Violations:	If an inspection reveal deficiencies, an inspector documents the deficiencies and instructs the operator to fix the problems within a time frame. If the deficiencies remain, APHIS considers legal action. Legal action can include a licence revocation and a maximum penalty of \$10,000 per violation.
Other special considerations:	All dogs must be identified with an official tag using a collar or a tattoo.

A number of concerns exist about the AWA and the USDA APHIS inspections. These concerns are discussed in section 4.2. Additionally, the USDA APHIS is currently proposing to revise its definition of retail pet stores to close the loophole of unregulated internet, phone, and mail based “sight unseen” dog breeding businesses (USDA, 2012c).

State

Of the 50 states in the United States, 23 have enacted laws addressing commercial breeders, including those breeders who are not regulated under the AWA. The definition of a commercial breeder varies in each state, from someone who sells or breeds at least one dog in a year to someone who maintains more than 30 intact bitches

over 12 months of age or sells or transfers 60 dogs in a year. The standards vary significantly but for the most part consider only the physical health of a dog, with the socialization exceptions noted in the chart below.

Table 5: US State Laws Regulating Commercial Breeders

Provision	State
Regulates breeders who supply directly to the public	California, Colorado, Connecticut, Indiana, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Missouri, Nebraska, Nevada, Oklahoma, Oregon, Pennsylvania, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia, Wisconsin
Provides a maximum number of dogs a breeder can possess at one time	Louisiana, Oregon, Washington (as of 2010, existing breeder are grandfathered), Virginia
Mandatory licence and inspection	Kansas, Missouri, Nebraska, Pennsylvania, Texas, Wisconsin
Ability of authorized agent to inspect	Colorado, Connecticut, Iowa, Maine, Maryland, Massachusetts, Tennessee, Vermont, Virginia
Mandatory licence/registration (no mandatory inspection)	Colorado, Connecticut, Indiana, Kansas, Louisiana, Maine, Massachusetts, Nevada, Oklahoma, Tennessee, West Virginia
Provisions for physical health	California, Colorado, Connecticut, Indiana, Iowa, Kansas, Massachusetts, Missouri, Nebraska, Nevada, Oregon, Pennsylvania, Texas, Vermont, Virginia, Washington, Wisconsin
Provisions for genetic testing	None
Provisions for socialization	California, Nebraska, Oklahoma

Information gathered from (ASPCA, 2011; Wisch, 2012)

Some states have decided to regulate the sale of pets to overcome the information gap between breeder and end buyer, especially when brokers and pet stores serve as intermediaries. Twenty states have enacted laws that protect consumers when purchasing pets³. These states allow a consumer to return a “defective pet” and receive a refund/exchange within a time range of 7 to 21 days. Some states recognize the bond that develops between a pet and its guardian and mandate the supplier to provide reimbursement for veterinary expenses (Wisch, 2010). However, as some genetic diseases develop after the first 21 days of having a pet, these laws protect consumers

³ Arizona, Arkansas, California, Connecticut, Delaware, Florida, Maine, Massachusetts, Minnesota, Nebraska, Nevada, New Hampshire, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, South Carolina, Vermont, and Virginia

only against immediate physical health concerns and do not consider the genetic and psychological well-being of the dog in the long term.

Municipal

Another approach to address concerns about commercial dog breeding facilities that sell to pet stores is to ban the sale of dogs in pet stores. Twenty-five US municipalities have banned the sale of dogs in retail stores⁴ (Best Friends Animal Society, 2012). This approach does not directly stop the dog breeders from breeding but it keeps people from making impulse purchases in store. One criticism of this approach is that it does not serve to stop impulse purchases that are made online.

Some municipalities also regulate breeders. The City of Los Angeles, for example, requires that all dogs must be spayed or neutered, with a few small exceptions, unless their owner holds a breeder permit. The general manager of the department of animal services can determine the conditions of providing a breeder permit. They have also made it illegal to buy or sell animals in public areas in Los Angeles (<http://www.laanimalservices.com>). For the most part, with the exception of zoning, municipalities do not choose to regulate dog breeding and leave it to national and state laws.

4.1.5. Canada

Like Australia, any regulation of dog breeding in Canada occurs at the level of lower jurisdictions. The Canadian Veterinary Medical Association (CVMA) developed a code to regulate kennels in 1994 and updated it in 2007. *A Code of Practice for Canadian Kennel Operations* references the genetic, physical, and mental health of dogs. The code provides a summary of mandatory care for all dogs.

⁴ Albuquerque, NM, South Lake Tahoe, CA; West Hollywood, CA; Hermosa Beach, CA; El Paso, TX; Austin, TX; Lake Worth, FL; Fountain, CO; Flagler Beach, FL; Coral Gables, FL; Lauderdale Lakes, FL; Opa-Locka, FL; North Bay Village, FL; Glendale, CA; Irvine, CA; Dana Point, CA; Chula Vista, CA; Hallandale Beach, FL; Laguna Beach, CA; Point Pleasant, NJ; Aliso Viejo, CA; Huntingdon Beach, CA; Brick, NJ; Manasquan, NJ; and most recently, Los Angeles, CA.

Those who have accepted responsibility for any dog(s), regardless of their area of involvement, must provide:

- 1) comfort, shelter and security;
- 2) readily accessible fresh water and a diet capable of maintaining the dog(s) in full health and vigour;
- 3) freedom of movement;
- 4) the company of other animals, which includes the human who is often the only contact that the dog(s) might have with other living creatures;
- 5) the opportunity to exercise most, if not all, of their normal patterns of behaviour;
- 6) an environment and housing that neither harms the animal nor causes any undue strain or stress;
- 7) the ability to recognize and prevent abnormal behavioural patterns, injury, and parasitic infections and disease, including rapid diagnosis and treatment when indicated; and
- 8) appropriate health care. (CVMA, 2007, p.2)

This elective code is referenced by regulations in various provinces and municipalities. The following section summarizes the existing provincial legislation and regulations and discusses municipal-level policy.

Provincial

Animal protection legislation is unique to each province. In Alberta, British Columbia, New Brunswick, Nova Scotia, Ontario, and Saskatchewan the SPCA has the legal ability to enforce the legislation. In Manitoba, a provincially appointed veterinarian is in charge of enforcement. In Newfoundland and Labrador, Northwest Territories, Nunavut, and Yukon, the RCMP, police officers, or in some instances, bylaw officers are solely responsible for enforcement (Wepruk, 2004). In Quebec, ANIMA (translated as National Intervention for the Well-Being of Animals Association) has the jurisdiction to enforce animal welfare legislation. In Prince Edward Island, the Humane Society enforces an act specific to companion animals. Few provinces have stipulations for dog breeding, as is evidenced in Table 6.

Table 6: Canadian Provincial Laws Regulating Commercial Breeders

Province/Territory	Provisions for Dog Breeding Regulation
Alberta	No regulation, licence requirement, or inspection requirement exists.
British Columbia	No regulation, licence requirement, or inspection requirement exists.
Manitoba	<p><i>The Animal Care Act</i>, S.M. 1996, c. 69 requires that all breeders apply annually for a licence and pay a fee. It defines a breeding premise as one where more than 2 litters of dogs are raised in any year and distinguishes between a commercial breeding premises (5 or more litters in a year) and a hobby breeding premises (3 to 4 litters of dogs raised in a year). However, the licensing component is not currently being enforced due to resource limitations (Manitoba Agriculture, Food, & Rural Initiatives employee, personal communication, December 5, 2012).</p> <p><i>The Animal Care Regulation C.C.S.M. c.A84</i> stipulates that dog breeders follow the <i>CVMA A Code of Practice for Canadian Kennel Operations</i>. It also stipulates that the minimum number of intact bitches to qualify as a breeding premise is five. Although no inspection is required or suggested upon initial application, before renewing a licence, the director may require the licensed breeding premises be inspected.</p>
New Brunswick	<p><i>The New Brunswick Society for the Prevention of Cruelty to Animals Act</i>, R.S.N.B. 1973, c. S-12, states that a person operating a pet establishment must apply for a pet establishment licence. An animal protection officer (APO) has the right to inspect a licensed pet establishment, and a person who operates a pet establishment without a licence commits an offence.</p> <p><i>The Pet Establishment Regulation 2010-74</i> includes a kennel in the definition of a pet establishment, meaning any premises where dogs are bred or boarded. Before a licence is issued, an APO must enter and inspect the premises. The APO may also inspect before renewing a licence. The annual fee is \$250 for a kennel and the licence is valid for 1 year.</p>
Newfoundland and Labrador	<p><i>The Animal Health and Protection Act</i>, SNL2010, c. A-9.1, permits the Lieutenant-Governor in Council to make regulations for kennel operations.</p> <p><i>The Animal Protection Standards Regulations 36/12</i> state that where the word “must,” “shall,” or “require” is contained within the <i>CVMA A Code of Practice for Canadian Kennel Operations</i>, it is adopted as a requirement for kennel operations. Additionally, the regulation stipulates some of its own requirements in Schedule B, mostly for the physical health but there is also some mention of social interaction and enrichment. No licence or inspection requirements exist. All advertisements for a pet establishment must include the name and licence number of the establishment. This regulation stipulates record keeping requirements, and lists the <i>CVMA A Code of Practice for Canadian Kennel Operations</i> as the standards that a kennel licence holder shall comply with.</p>
Northwest Territories	No regulation, licence requirement, or inspection requirement exists.
Nova Scotia	No regulation, licence requirement, or inspection requirement exists.
Nunavut	No regulation, licence requirement, or inspection requirement exists.
Ontario	No regulation, licence requirement, or inspection requirement exists.

Province/Territory	Provisions for Dog Breeding Regulation
Prince Edward Island	<p>The <i>Companion Animal Protection Act</i>, C-14.1 permits the Lieutenant Governor in Council to prescribe standards of care, maintenance and treatment for companion animals.</p> <p>The regulation to this act establishes regulations for a “companion animal establishment,” calling a “pet store” an establishment that sells companion animals on a “regular basis.” A dog breeder would be included in this definition if the sale of dogs happens on what PEI would consider a regular basis. Companion animal establishments must ensure that the building is constructed and the standards of animal care, maintenance, and treatment are in accordance with the CVMA A <i>Code of Practice for Canadian Kennel Operations</i>, or, where better, the PEI “Housing Standards for Cats and Dogs in Companion Animal Establishments Regulations.” They must also apply for a licence and pay a fee annually. No inspection requirement exists.</p>
Quebec	<p><i>The Regulation respecting the safety and welfare of cats and dogs</i>, RRQ, c P-42, r 10.1 is applicable to the owner or custodian keeping one or more animals on the premises of a commercial activity such as a breeding operation. It also applies to an owner or custodian of at least 5 dogs six months or older. It sets specific standards for physical health, including nourishment, housing, cleanliness, exercise, gestation, and euthanasia. The owner must also keep a registry. No standards are in place for socialization or genetic well-being.</p> <p>The <i>Animal Health Protection Act</i>, RSQ P-42 states that no person may be the owner or custodian of 15 or more animals without holding a permit issued by the Minister. However, this section is not currently in force and there is no requirement for inspection stipulated. The provincial government must still pass a regulation outlining the details for obtaining a permit (Montreal SPCA employee, personal communication, December 6, 2012).</p>
Saskatchewan	<p><i>The Animal Protection Regulations</i>, 2000, c. A-21.1 Reg 1, stipulates that a dog is not in distress if it is handled according to the outdated (1994) CVMA A <i>Code of Practice for Canadian Kennel Operations</i>. No other regulation, licence requirement, or inspection requirement exists.</p>
Yukon	No regulation, licence requirement, or inspection requirement exists.

In summary, New Brunswick is currently the sole province with mandatory inspection requirements for dog breeders. Manitoba, New Brunswick, Newfoundland and Labrador, and Prince Edward Island all have annual licensing that is for the most part applicable to dog breeders. Alberta, British Columbia, Northwest Territories, Nova Scotia, Nunavut, Ontario, Quebec, Saskatchewan, and Yukon do not currently monitor dog breeders any more than they do a dog owner. In these provinces, the authorities cannot estimate the number of dog breeders and have no register to know where the breeders are located.

Regional and Municipal

Municipalities and regional districts in Canada have varying degrees of power when it comes to regulating dog kennels and breeders. Dog breeding is a business and municipalities and regional districts in BC have the ability to license and stipulate requirements for the licence. I conducted a review of the animal control bylaws in 160 municipalities and 27 regional districts in BC. Eighty-three municipalities and five regional districts license qualifying dog kennels and breeders. To qualify as a dog kennel or breeder, the person must have more than two to four dogs on the premises. Five regional districts and 35 municipalities require that the breeder meet the standards of a bylaw. The most common requirements are meeting building and zoning standards, maintaining a quiet kennel, and keeping the kennel sanitary. Less frequent standards are providing the animals with good physical health and/or well-being (five instances), a maximum limit of between five and twenty dogs (four instances), meeting the standards of the CVMA *A Code of Practice for Canadian Kennel Operations* (three instances), proof of registry with the CKC (three instances), meeting the Canadian Council for Animal Care *Guide to Care and Use of Experimental Animals* (one instance), the possibility of Council requesting that the BC SPCA inspect the kennel (one instance), and a ban on keeping any more than three dogs (one instance). This analysis represents the significant variations and gaps in British Columbian municipal and regional district bylaw policies pertaining to dog breeding.

Similar to the United States, municipalities in Canada have started to take the approach of banning the sale of dogs in pet stores. Many of the Canadian pet stores get their dogs from United States dog breeders (CBC Marketplace, 2009). If federal statutes more heavily regulated the import of puppies for the purpose of commercial sale, the industry would grow in Canada and more commercial breeders would spring to fill the demand. This limitation would not address the problems of poor genetics, physical health, and mental health in dogs bred for commercial purposes in Canada. Banning the sale of dogs in pet stores serves as a way to decrease the impulse demand for dogs. A ban can also serve to decrease the amount of surrenders to municipal shelters due a lack of education about what it means to bring a puppy into the home. Richmond, BC was the first to impose a ban, followed by Toronto, ON and Mississauga, ON. In 2012-2013, several BC municipalities were considering pet store bans or strict regulations.

4.1.6. Summary

The United Kingdom, the United States, and New Brunswick all require mandatory licensing and inspection to operate a commercial dog breeding facility, though the definition of what kind of facility qualifies varies. Ireland, the United Kingdom, the United States, and six out of seven Australian states or territories require commercial dog breeders or the dogs within the care of dog breeders to be registered. Canada is the exception, with just three of the thirteen provinces and territories requiring a registry.

The definition of a dog breeder varies significantly across countries and even states and provinces, as does the approach to regulation and education. These differences permit breeders in some cases to move to a different state, province, or municipality to escape regulation (Katz, 2008). Some jurisdictions have developed guidelines to help bring breeders into compliance with the guidelines. Others expect the breeders to be able to read and interpret the regulation on their own. Additionally, the actual regulations vary in terms of how they approach the welfare of dogs. Most regulations provide some degree of regulation for the physical health of the dogs in the care of the breeder. Genetic and socialization standards are less frequently included and in some cases serve as a suggestion rather than a mandate.

4.2. Limitations to Existing Approaches

Some dog breeders are exempt from regulations even where licensing is in place. These breeders are often referred to as hobby breeders. Hobby breeders are breeders using their homes, trailers, and basements to house dogs (Katz, 2008). Because these areas can constitute a “dwelling house,” they are exempt from much of the animal welfare legislation and in some cases, the animal cruelty officer must believe an animal is in distress and obtain a warrant to gain access to the premises without the permission of the owner. This requirement can allow breeders to remain hidden. Regulations that consider any dog breeder a business and mandate any premises be available for inspection help to overcome these issues.

The working group in Ireland found that the UK legislation had been relatively successful but were informed that the enforcement regimes were significantly different

depending on the local authority based on the local licensing officer. They suggested that any regulations of dog breeding must be specific, enforceable, and not open to interpretation (Ireland, 2005).

The Irish Department of Environment, Community, and Local Government determined that self-regulation of the dog-breeding industry is ineffective because a minority always ignore self-regulatory structures (Ireland, 2005). HSUS (2012) also criticizes self-regulation. They argue that self-regulated entities, like the AKC, do not have the ability to enforce cruelty laws where violations exist; the sole penalty is to suspend the registration of new litters. Additionally, the inspection reports are kept private, the regulations are often ambiguous and difficult to measure, and it allows non-registered breeders to remain hidden (HSUS, 2012). Katz (2008) argues that unless inspections are mandatory for breeders who are regulated and licensed, the laws are rarely followed because people are not held accountable. She is concerned that irregular permissible inspection allows breeders to be licensed and appear in good standing to the public, but does not prevent the breeders from violating conditions of the licence.

Even in places with mandatory inspections, good outcomes for the dogs are not guaranteed. In 2010, the USDA Office of the Inspector General (OIG) conducted an audit of the APHIS protocols when they encounter “problematic dealers” (USDA, 2010b). The OIG found a number of major deficiencies with the APHIS administration of the AWA. The deficiencies include ineffective enforcement, improper citing and documentation of violations to support enforcement actions, too low penalties for AWA violators, auditor misuse of guidelines leading to lower penalties for AWA violators, and a gap in enforcement of commercial breeders selling animals over the internet (USDA, 2010b). These deficiencies led to major welfare issues for dogs. Photos in the report show a dog’s leg, injured by another dog, with all of the bone, muscles and tendons visible for a week without breeder action. Photos also show a dog covered head to toe with ticks, food bowls infested with cockroaches, water bowls with algae and feces, and puppies unable to walk with feet falling through wire-bottom cages. In these instances, the breeder faced little to no penalties and no referrals were made for state animal cruelty charges (USDA, 2010b). Some of the commercial breeding facilities cited for violations are AKC registered facilities (HSUS, 2012).

Since the USDA audit report was published, a number of positive changes were implemented; yet, the USDA standards are still criticized by animal welfare organizations. Wire flooring and cage stacking are two of the common concerns. The HSUS (2012) has documented the lobbying efforts by the AKC Government Relations department to thwart the adoption of laws that would prohibit these practices, such as “a Louisiana bill that would have prevented breeding facilities from keeping dogs continually in stacked, wire-floored cages” (p. 2). The AKC is also lobbying breeders to oppose the proposal for the USDA to regulate breeders selling through the internet through the AWA, citing the regulations as “onerous” in a publicly available report (HSUS, 2012).

Critiques of pet-shop sales bans also exist. Nosotti (2011) argues that attacking pet stores will not shut down puppy mills; it will reduce only the supply and availability of pets without decreasing the demand for them, resulting in a vacuum filled by sales online or by other means. Nosotti (2011) argues for stricter laws, regulating who is authorized to handle and sell animals, and putting limits on the number of animals kept by owners and breeders.

5. Policy Options: Regulating Dog Breeding

This research seeks to answer the question: how can British Columbia overcome the negative externalities surrounding the welfare and socialization of dogs in the dog-breeding industry? The concerns outlined in the background section suggest that the ideal policy to overcome the negative externalities of the dog-breeding industry must meet the following objectives: 1) document the number of dog breeders; 2) address the genetic, physical, and mental well-being of dogs; and 3) address all sources of puppies for consumers. With this and RSPCA Australia's recommendations in mind, a review of the existing policy approaches suggests three main options for implementation at a provincial level in Canada to address the problem.

These options are discussed below in the context of British Columbia, but they could be applied in any other Canadian province given the national legislative context. Some alternatives I considered but did not choose include status quo (no regulation, licensing, or inspection), licensing without regulation or inspection, and changes at the federal level. The first two were rejected based on the inadequacy of addressing the policy problem and the above objectives. Changes at the federal level were rejected based on the political convention to leave regulation of agriculture to the provinces. Any federal level options were also rejected due to futile attempts over the past ten years to substantially change Canadian animal anti-cruelty legislation (Hall, 2006).

A provincial ban on pet store sales of puppies is not considered as a stand-alone policy option. A provincial ban on pet store sales of puppies would decrease the supply of US commercially bred puppies resulting in a subsequent increase in demand for puppies from breeders within Canada. Without an adequate regulation already in place, a ban would increase Canadian supply but not the quality of the supply. I recommend a provincial ban on pet store sales of puppies as a necessary complement to any of the following policy options.

5.1. Provincial regulation of dog breeders

Adopting a provincial regulation for dog breeders would set out specific standards in a regulation to the *PCA Act*. These standards could be the Canadian Veterinary Medical Association's (CVMA) *A Code of Practice for Canadian Kennel Operations*. Alternatively, the province could stipulate its own standards. The CVMA Code contains standards for all aspects of dog well-being in a kennel environment, but does not specify standards for the well-being of dogs being bred in a dwelling house. Given that, I recommend that the regulation in this option include the CVMA Code for kennel operations and separate standards for hobby breeders. Some existing regulations apply only to regulate those with a certain number of dogs, sometimes as high as 20. I have rejected this minimum applicable limit because it does not address all sources of puppies. Hobby breeders deserve different considerations based on housing and scale. In order to overcome the negative externalities of dog breeding, they must also be held responsible for the well-being of breeder dogs and puppies. The regulation would include standards for genetics, physical health, and socialization. Compliance with these standards would decrease the negative effects of current practices, with regulation enforcement conducted by the BC SPCA Cruelty Investigations Department (CID). This organization would also continue to investigate complaint-driven violations of the *PCA Act*.

5.2. Provincial regulation and licensing of dog breeders with permissible inspections

This option builds upon the first alternative. It includes the regulation of both kennel and hobby breeding operations. Additionally, this option requires a two-tiered licensing system for commercial and hobby breeders. This approach establishes a registry of breeders that is publicly accessible and specifies standards for listing the breeder licence number in advertisements and posting the licence on the premises. Commercial breeder and hobby breeder premises, including dwelling houses, must be made available for inspection. Commercial breeder premises must be available for inspection during business hours, while dwelling house inspections would be by appointment between the inspector and the breeder.

For this policy option, two different entities could be considered for conducting inspections. The BC SPCA CID could provide the services of their SPCs, already spread across the province, to inspect. Alternatively, the Lieutenant Governor in Council (LGIC) could appoint and manage inspectors specifically for this regulation. Under the current legislation, the LGIC is not responsible for managing any enforcers of the *PCA Act*. I suggest, then, that the BC SPCA CID would be responsible for the permissible inspections. An animal welfare expert, hired by the provincial government, would review and approve licence applications. Licence funds would cover the salary of the person approving applications and any additional funds would be provided to the BC SPCA CID on a per inspection basis. The application reviewer would request inspections when there are questions surrounding an application and when public complaints are made to the government or to the BC SPCA.

5.3. Provincial regulations, licensing, and mandatory annual inspection

This option builds upon the previous two options. It adds a requirement for mandatory inspection of all dog breeders. I suggest that commercial breeders with a minimum threshold of dogs be inspected annually, while hobby breeders would be inspected under a risk-based system in order to establish a program that is relatively cost-effective. Under the current legislation, the LGIC is not responsible for managing any enforcers of the *PCA Act*. I suggest that the BC SPCA CID be charged with conducting the mandatory inspections and that the application review process follow the same format as described above, with payment on a per inspection basis.

6. Criteria for Analysis of Policy Options

In considering public policy, the systematic evaluation of the respective strengths and weaknesses of each alternative helps determine which option will be the best overall. The goal of this research is to overcome the negative externalities related to the dog-breeding industry. Considering this goal allowed me to develop evaluation criteria for assessing the trade-offs of the identified policy options.

Table 7 presents the criteria I have chosen, the definition for each, and the method of measurement. All measures will be based on a scale from one to six with six being the ideal and one being the least ideal.

Table 7: Criteria for Analysis of Policy Options

Criterion	Definition	Measure
Effectiveness	Considers to what extent the option will reduce the policy problem and associated consequences. How well does this policy adequately overcome the negative externalities surrounding the welfare and socialization of dogs in the dog-breeding industry?	Qualitative discussion and ranking of the expected outcomes based on feedback from interviews.
Government Costs	<ul style="list-style-type: none"> • Considers how quickly and inexpensively an option can be implemented based on what is required before the policy is enacted. (e.g. government and stakeholder staff resources) • Considers the costs to sustain the option for monitoring and enforcement 	Qualitative discussion and ranking using an estimate of the implementation, monitoring, and enforcement costs based on feedback from interviews.
Stakeholder Acceptability	Considers the acceptability of policies to relevant stakeholders: <ul style="list-style-type: none"> • Public • Consumers • Breeders 	Qualitative discussion and ranking of the expected or given responses of the relevant stakeholders using economic model, interview data, media articles, and opinions expressed on stakeholder websites.

7. Analysis of Policy Options

Table 8: Overview of Analysis Findings

Criteria	Effectiveness	Government Costs	Stakeholder Acceptability	Final score
Option	Measure: scale from 1-6, 1 being least ideal, 6 being most ideal			
Regulation	2: Slightly effective Breeders still not documented, compliance could be limited	5: Lowest cost option • 2: Easiest to implement but still requires initial government \$\$ • 3: Cost of regulation enforcement	3: Somewhat acceptable • 1: Public impact moderate, decreased externalities • 1: Consumer impact moderate, long term costs slight decrease • 1: Reputable breeders likely accept, Disreputable breeders likely reject	10
Regulation, Licensing, Permissible Inspection	5: Highly effective More breeders register, but breeders could be less compliant	3: Moderate cost option • 1: More challenging: must design & implement registry, inspections, and allocate funds • 2: Cost of regulation enforcement & licence system	5: More acceptable • 2: Public impact strong, more decreased externalities • 2: Consumer impact high, significant decrease of long term costs • 1: Disreputable breeders likely more resistant due to cost than reputable breeders	13
Regulation, Licensing, Mandatory Inspection	5: Highly effective Fewer breeders register, but breeders could be more compliant	2: High cost option • 1: More challenging: must also develop risk-based inspection program • 1: Cost of enforcement, licence system, & regular inspections	4: More acceptable • 2: Public impact strong, more decreased externalities • 2: Consumer impact high, significant decrease of long term costs • 0: Both types of breeders resistant due to cost & restricted freedom	11

Table 8 summarizes the scoring of each policy option based on the analysis I present in this section. Government costs are divided between implementation costs and monitoring and enforcement costs. Stakeholder acceptability is a measure of the support of the public, dog consumers, and breeders in the ideal scenario; one where little information asymmetry exists and the stakeholders understand the effect of the policy. Boxes highlighted in green symbolize that the option is close to the ideal, yellow reveals a moderate ability to satisfy the criterion, and red signifies a low ability to satisfy the criterion. The overall measure of six is broken down by different measures within each criterion; each criterion is given equal weighting. If effectiveness, representing the objectives of the policy, were double-weighted, it would maintain the same final ranking and accentuate the gaps between policies. In the following subsections I provide a rationale for my scoring choices and a qualitative overview of my considerations in assessing the merits and drawbacks of each option.

7.1. Effectiveness

Effectiveness explores the ability of a policy option to decrease the negative externalities related to the dog-breeding industry. The criterion is assessed based on whether the option fulfills the three policy objectives outlined in section 5 – the ability to 1) document the number of dog breeders; 2) address the genetic, physical health, and mental well-being of dogs; and 3) be applicable to each puppy source. As this criterion measures the primary objective of the policy, it has been double-weighted.

In order to be effective, any policy must have the following components: consultation, education, public and consumer awareness, and considerations for the way the regulation is written. Several interviewees mentioned consultation and advisory panels as part of their development and implementation processes. Some enacted large-scale advisory panels, while others met with and requested submissions from stakeholders (personal communications, 2012).

The interview participants discussing policies in Newfoundland and New Brunswick found that training programs were necessary for inspectors and that public

education was also valuable (personal communications, 2012). One interviewee commented that the established code of practice is written to serve as an educational tool for breeders to care properly for their dogs (Animal Welfare League of Queensland representative, personal communication, December 6, 2012). A state in the US with a complaint phone line found that of 490 inquiries submitted by the public, 74 were about unlicensed facilities that came into compliance after being reported. This program also provides the opportunity for breeders to be recommended as the top tier of a two-tier program. It uses continuing education and inspections as a way to ensure that the breeders remain in compliance (US state program employee, personal communication, June 3, 2012).

Interviewees also indicated that the content and form of the regulations had to be clear and reasonable for stakeholder buy in. Some of those interviewed received negative feedback based on the subjects of cosmetic surgery (breeder cropping of ears and tails), greyhound racing industry, and the dog sled industry. Interviewees were also concerned about some of the gaps in their existing regulation (personal communications, 2012). Interviewees agreed that effective regulation must be clear, auditable, without loopholes, and reasonable in order to ascertain compliance.

7.1.1. Regulation

The regulation option, as described in section 5, does not allow for the documentation of dog breeders. It has the potential to address the genetic, physical health, and mental well-being of dogs; however, this is subject to the content and implementation of the regulation. The ability of the regulation to address all sources of puppies is also based on the content of the regulation. In not documenting breeders, the regulation would be lacking in enforcement and thus the smallest number of breeders would be likely to comply.

7.1.2. Regulation, Licensing, and Permissible Inspection

This option ensures that dog breeders are adequately documented. Again, it has the potential to address the well-being of dogs and all sources of puppies. Because inspection is permissible, the likelihood of all breeders becoming licensed is high, due to

substantial penalties for being unlicensed and low barriers to becoming licensed. Alternatively, because inspection is permissible, the likelihood of all breeders being in compliance is lower than if inspections were mandatory.

7.1.3. *Regulation, Licensing, and Mandatory Inspection*

This option also ensures that dog breeders are adequately documented and has the potential to address the well-being of dogs and all sources of puppies. Because inspection is mandatory, the likelihood of all breeders becoming licensed is lower. A chance exists that some breeders will become more hidden and expand their methods of selling puppies, such as bringing the puppies to public spaces for immediate sale. Alternatively, because inspection is mandatory, the likelihood of all participating breeders being in compliance is higher than if inspections were permissible.

7.2. Government Cost

Government cost is subdivided into a measure of the cost of implementation and the cost of monitoring and enforcement.

Policy options that encounter few institutional barriers and are not as complex to implement will have a high assessment for implementation. This measure of cost is assessed based on interview responses. The main barrier that divides these options is the extent of the interagency negotiation between government and the enforcement body. A secondary barrier could be the establishment of an overseeing body to implement the policy. In all three options, some complexity arises due to the varying stakeholder views and the necessity for consultation. Additionally, in all three approaches, an education program for cruelty enforcement or inspectors, breeders, and the public should be developed and would likely cost the same to develop in each instance, though the content would differ.

The monitoring and enforcement measure of cost assesses the amount of resources required from the government to enact the proposed policy approach. A policy approach that is more resource-intensive will receive a lower ranking for cost.

This measure considers only the annual and one-time costs once the policy has been implemented.

Though this section refers to the government, the BC SPCA currently enforces the *PCA Act* and subsequent regulations. Under the current legislative system, the BC SPCA would assume some or all of the government costs of monitoring and enforcement (BC SPCA CID employee, personal communication, June 21, 2012). A transfer of revenues, from licencing or the use of monetary sanctions for misconduct could offset these costs.

7.2.1. Regulation

For all three options, regulations must be developed. To create and implement a fair and reasonable set of regulations, government must go through some process of consultation. The consultation could be in the form of a panel, such as with the recent Texas Licensed Breeders Advisory Committee (*Dog or Cat Breeders Act*, 2011) or the development of the Colorado Pet Animal Care Facilities Act (Colorado Department of Agriculture employee, personal communication, November 27, 2012). It could also be less costly, in the form of written submissions from stakeholders and developed only by key experts on animal welfare and cruelty enforcement, such as with New Brunswick, Indiana, and Newfoundland (personal communications, 2012). This option would be the most ideal, but its score is reduced because it still requires administrative oversight.

I estimate based on interview data that this would require at minimum the time of a government coordinator, a government consultation specialist, an animal welfare consultant, and the time of drafting lawyers. It would also require the time of stakeholders participating in consultation (Manitoba Agriculture, Food, and Rural Initiatives, personal communication, December 5, 2012; Newfoundland Department of Natural Resources employee, personal communication, November 28, 2012).

Monitoring and enforcement costs to government of a regulation would be the lowest of all three options, as it would follow from the current complaint based system currently in practice by the BC SPCA.

7.2.2. Regulation, Licensing, and Permissible Inspection

In addition to the development of regulations, this option requires that a licensing program model be developed. The government must engage in a contract for inspectors and develop an auditing protocol for inspections. This would require the time of a licence and auditing systems specialist, in addition to the aforementioned individuals.

Licensing Fees

Interview participants outlined varied licence fee approaches. Some programs have fees based on the number of puppies, such as one program in the US that has a base fee of \$125 per year, plus \$1 for every dog that is transferred (e.g. sold, bartered, given away, adopted, etc.), to a maximum of \$2,500 (US state program employee, personal communication, June 3, 2012).

Other programs charge based on the number of intact bitches, such as the program in Indiana where breeders are charged an incremental amount based on the number of intact bitches. For example, a breeder with 20 to 50 intact bitches pays a licence fee of \$75 while one with 251 or more pays \$500 (Indiana State Board of Animal Health employee, personal communication, November 27, 2012). The program in Ireland does the same, where the minimum of 6 to 18 bitches is €400 and more than 200 bitches, €3,000 (ISPCA employee, personal communication, November 27, 2012).

Still other programs charge flat fees, such as New Brunswick, which charges \$250 per year (New Brunswick SPCA employee, personal communication, November 23, 2012). The Colorado breeder-licensing program charges \$345 for a small-scale breeder and \$350 for a large-scale breeder (Colorado Department of Agriculture employee, personal communication, November 27, 2012). Manitoba has an annual fee of \$100 per year per breeder, though the program isn't yet being enforced (Manitoba Agriculture, Food, and Rural Initiatives employee, personal communication, December 5, 2012).

Given that this will be a two-tiered program, I suggest that there be a set fee for hobby breeders and a graduated fee structure for commercial breeders, similar to the Indiana program. These costs would ultimately be passed on to the consumer at between \$5 and \$20 per puppy based on the fee structure, assuming litter sizes of

approximately 5 puppies per brood bitch and regulation of all breeders (no minimum number of brood bitches).

Inspection Costs

One interview respondent suggested that all of their “permissible inspection” program costs are covered by the fees collected from licensing. However, the number of inspections is limited due to this restriction (Indiana State Board of Animal Health employee, personal communication, November 27, 2012). Another interview estimated that it would cost approximately \$150 to \$250 to inspect a facility based on a \$35 per hour wage rate, including mileage and travel time (Manitoba Agriculture, Food, and Rural Initiatives employee, personal communication, December 5, 2012).

Assuming that a team of BC SPCA CID SPCs already in place is able to conduct inspections, I will suggest that the program could be self-sufficient. Licence fees could be set high enough to cover a full-time employee to manage the program and fund inspections on an as-needed basis.

7.2.3. Regulation, Licensing, and Mandatory Inspection

This option would require more time from the licence and auditing systems specialist to devote resources to developing the risk-based audit protocol of inspecting hobby breeders. It would also require the BC SPCA CID, responsible for conducting the inspections, to put organizational resources into restructuring the staff so that they can accommodate the additional workload.

Inspection Costs

A program with mandatory inspection would be more costly than the other two options. One confidential US state program interviewee indicated that their large-scale program takes in \$500,000 in fees each year, has 19 employees, and is self-financing (US state program employee, personal communication, June 3, 2012). I suspect, based on a personal communication with a BC SPCA CID employee (June 21, 2012), that BC does not have not enough large-scale breeders to generate licence fees sufficient to fund a self-sustaining mandatory licensing program. New Brunswick, with approximately 300 licensees (both breeders and other pet establishments) and \$250 per year per

licence, has not yet found it possible to become self-sufficient (New Brunswick SPCA employee, personal communication, November 23, 2012). An initial census of breeders would allow the government to determine this more accurately.

7.3. Stakeholder Acceptability

This criterion explores whether implementing a dog breeding policy would be acceptable to the impacted stakeholders. Stakeholders in BC include members of the public, breeders and dealers, and consumers. Industries who represent public interests include animal welfare and rights organizations, veterinarians, and politicians. The pet industry balances the interests of all stakeholders. The assessment of this criterion is limited to interview data and website content. A survey would have provided more in-depth perspectives on the policy options; however, the weight attributed to each stakeholder would still need to be determined. In Texas, an advisory committee has the following members: two members of the public, two veterinarians, one animal control officer, two licensed breeders, and two animal welfare organizations (*Dog or Cat Breeders Act*, 2011).

Interviews with those implementing and administering existing policy approaches demonstrated a variety of responses. In some jurisdictions, no matter what option was chosen, breeders were resistant to any change but eventually complied during the implementation of regulation. Some animal welfare and rights groups indicated that regulations were not strong enough to meet public demands. A New Brunswick SPCA employee stated that no organizations expressed opposition to the regulations; rather, some individuals did not feel sufficiently consulted (personal communication, November 23, 2012). A Manitoba Agriculture, Food and Rural Initiatives employee found that the amendments to the licensing program were well received by the public (personal communication, December 5, 2012).

The current perspectives and work of some of the relevant stakeholders in BC and Canada are outlined below. These organizations representing stakeholders were selected based on the accessibility of publicly available stances.

7.3.1. Organizations Representing Stakeholders in BC

The International Summit for Urban Animal Strategies (ISUAS) is a working group of animal industry representatives meeting annually to discuss strategy. In April 2011, they held a series of regional meetings to discuss breeder best practices. A draft was developed but nothing has been formally published (BC SPCA employee, personal communication, October 19, 2012).

Public

The Animal Advocates Society of BC (2011) recommends that BC adopt a two-tiered licence and inspection system for hobby breeders and commercial breeders. They recommend that this licence system include provisions for inspection and mandatory micro-chipping of all animals.

The BC SPCA worked toward a ban on the sale of puppies in pet stores in Richmond, BC, adopted in 2011. They advocate for ethical selective breeding of companion animals. They also advocate for people to adopt dogs or purchase from reputable breeders. According to their website, their work remains reactive through the Cruelty Investigations Department (<http://spca.bc.ca>). Interviews indicated that the BC SPCA is discussing breeder regulation but has no current campaign for a change in place (BC SPCA employees, personal communication, June 21, 2012).

BC Liberal MLA Jane Thornthwaite of North Vancouver-Seymour proposed a Private Member's Bill in 2012, listing a number of regulations for the physical well-being of dogs, with mention of genetics and socialization as well (Thornthwaite, 2012). The bill went through first reading on April 23, 2012, which gives it limited time to be considered in light of the coming May 2013 provincial election. The likelihood is decreased because the Legislature did not sit for the fall 2012 session.

Consumers

The College of Veterinarians of British Columbia is also concerned about the health and welfare of breeding dogs. In a letter to the Vancouver Sun, they outline that puppies need to be adequately socialized and treated for diseases and parasites. They encourage pet guardians to do research on breeders or kennels prior to purchasing a

pet (CVBC, 2006). The Canadian Veterinary Medical Association supports provincial legislation to eradicate sub-standard large-scale breeders (Gormley and Berry, 2009).

Breeders and Dealers

Dog breeders in BC do not have an official lobbying group. They lobby either individually, through the CKC if they are registered, or through the Pet Industry Joint Advisory Council Canada (PIJAC Canada). One of the mandates of PIJAC Canada is to “support legislation and regulations which operate in the best interest of pets, the pet industry and the public and oppose that which is not” (<http://www.pijaccanada.com/>). PIJAC has not published a position statement on dog breeding regulation.

7.3.2. Regulation

Public

The introduction of a regulation would have a moderate effect on the long-term negative externalities experienced by the public. This effect is directly correlated to the estimated low to moderate level of breeder compliance.

Consumer

No precise estimate can be made for the cost upon the enactment of dog-breeding regulation. Breeders who are not initially compliant with the regulation will have to pay the one-time costs of modernizing equipment and possible additional ongoing costs of paying more employees to ensure that socialization, exercise, animal cleanliness, animal monitoring and record-keeping standards are met. These costs to breeders who are not currently compliant would ultimately be passed on to consumers.

In the long term, correlated with effectiveness, consumers who purchase from compliant breeders will have decreased life cycle costs. Those who continue to purchase from non-compliant breeders will have the same heightened life cycle costs.

Breeders and Dealers

Breeders who are already compliant will likely be supportive of the regulation, as long as the content of the regulation is acceptable. Breeders who are not compliant will

likely reject the adoption of a regulation; any move from status quo is unacceptable. This is evidenced by the current lack of self-regulation.

7.3.3. *Regulation, Licensing, and Permissible Inspection*

Public

The addition of licensing will significantly increase the impact on the public, as correlated with the increase in effectiveness of the policy. A decrease in the amount of dog abandonment, euthanasia, and dog bite outcomes will result in a decrease of overall costs. The public will also likely support the increase in accountability of breeders.

Consumer

The addition of licensing will allow the consumer to distinguish between compliant and non-compliant breeders. Consumers will assume increased short-term costs for licensing and equipment modernization. The long-term, life-cycle costs will be lower. With permissible inspection, where there are more licence-compliant breeders and fewer regulation-compliant breeders, the dog life-cycle costs will be lower overall.

Breeders and Dealers

The addition of licensing will likely have mixed results. Though some breeders will gladly comply, the majority will not want an additional cost to pass on to the consumer. Those that are disreputable may also be resistant due to a decrease in freedom and a subsequent decrease in total supply and thus revenue.

7.3.4. *Regulation, Licensing, and Mandatory Inspection*

Public

The addition of licensing and mandatory inspection will significantly increase the impact on the public, in proportion to the increase in effectiveness of the policy. A decrease in the amount of dog abandonment, euthanasia, and dog bite outcomes will result in a decrease of overall costs. The public will also likely support the increase in accountability of breeders. The increased compliance with mandatory inspection will likely offset the potential additional costs.

Consumer

The addition of mandatory inspection will also allow the consumer to distinguish between compliant and non-compliant breeders. Consumers will assume increased short-term costs for licensing and equipment modernization. The long-term, life-cycle costs will be lower, likely more than offsetting the increased short-term costs. With mandatory inspection, where there are fewer licence-compliant breeders and more regulation-compliant breeders, the dog life-cycle costs will also be lower overall.

Breeders and Dealers

The addition of mandatory licensing will likely not be supported. Likely few breeders will want to comply; the majority will perceive mandatory licensing as an infringement of their freedom and will reject the additional costs to pass on to the consumer. Those that are disreputable may also be resistant due the subsequent decrease in their sales and thus revenue.

7.4. Summary

A review of the three proposed policy options reveals trade-offs associated with each approach. Using the scoring method, regulation, licensing, and permissible inspection comes out ahead with a score of 13 out of 16 possible points. The mandatory inspection option is not far behind with 11 points, with the regulation-only option trailing at 10 points. These results indicate that no policy is ideal, and the best options have close scores. Any of the policies rejected upon the establishment of options in section 5 may have ranked as more ideal in terms of cost and administrative ease, but would not have been sufficiently effective and would not satisfy many of the stakeholders. Although this analysis was conducted in terms of British Columbia, it could be applied to any jurisdiction with similar cultural values. The interview data gathered from participants outside of Canada proved just as valuable as those within Canada. The make-up of the stakeholders is similar and in all instances the adoption and implementation of regulation was subject to political will.

8. Recommendations

A number of considerations are necessary in recommending an adequate policy. Any dog breeding policy, implemented poorly, could be unsuccessful. Interview data and the report from the RSPCA Australia (2010) suggests that the key elements of a successfully developed and implemented dog breeding policy include the following:

1. Consultation: A representative group of stakeholders (veterinarians, animal welfare advocates, small and large-scale breeders, cruelty enforcement officers, and members of the public) should have input through a collaborative advisory panel; all participants must be willing to have the same broad end goal.
2. Education: A clear and concise training program should be put in place prior to enactment of regulations for both inspectors and breeders.
3. Public/consumer awareness: The public should be made aware of the policy and provided with a method to report non-compliances and make complaints.
4. Regulation: Must be clear, auditable, and without loopholes; must be reasonable in order for breeders to be willing and able to come into compliance rather than hide.

Those who develop the dog breeding policy must also carefully consider some key questions in writing the regulation:

- To whom does the regulation apply? If based on number of bitches, what is the cut-off threshold? What does that mean for breeders below that threshold?
- Is there a maximum acceptable number of bitches that can have adequate welfare at a commercial breeding establishment?
- What restrictions are placed on the advertisement of puppies for sale?
- What allowances are made for inspectors to enter dwelling houses?
- What stipulations will be made for permanent ID? Can mandatory micro-chipping aid in traceability back to breeders?

In order to be flexible in implementing a program for licensing, I also recommend that the fees be set by the LGIC separately from the regulation, so that they can more easily be adjusted based on the number and type of registered breeders.

I recommend that the British Columbia Legislative Assembly implement regulation of dog breeders with mandatory licensing and permissible inspection added to the *PCA Act*. The ideal policy would allow for flexibility to switch to mandatory inspection upon availability of funds and administrative personnel. This approach would ensure that dog breeders in BC take the time and spend the money to ensure that the dogs are provided with sufficient resources to ensure their well-being. The initial goal of this policy would be to overcome the more severe negative externalities and bring all breeders up to a baseline standard. In time, a program could be established permitting breeders to gain advanced education and be recognized for their commitment to excellence.

Additionally, I recommend that dogs sourced from dealers in the United States be more adequately regulated through a ban on the sale of puppies in pet stores. The Canadian import regulations address the immediate physical health of the puppy but do not address the genetic or psychological health concerns. A ban will ensure that the majority of puppies are purchased from regulated British Columbian breeders and subsequently have the strongest impact on both consumers and the public.

9. Limitations and Future Research

A few gaps were evident in conducting the research for this study, primarily, a lack of available data. The gap in data made it challenging to adequately evaluate the scope of the problem. The number of dogs surrendered or abandoned for problems due to their breeding would be challenging to ascertain. Stigma around surrendering or abandoning an animal might provoke people to give a different explanation for surrender. It can also be difficult to attribute a welfare problem in an adult dog to the breeder without sufficient evidence.

The lack of data made it even more apparent that dog breeding is an undocumented industry. I suggest that Statistics Canada include commercial dog breeders within their agriculture census, documenting the number of brood bitches and sires in each operation, improving the transparency of this industry. Future research could build upon this data and construct a better picture of dog breeding in Canada.

I also faced limitations of time and funding. Ideally, I would have been able to conduct a multiple-account benefit-cost analysis for the purpose of reviewing the policy options. This approach would have provided a more accurate measure of the costs and subsequent trade-offs associated with each option. Instead, I was reliant on qualitative interviews to review and estimate the monetary and non-monetary benefits and costs of each policy option. I would also have liked to develop a survey for the “stakeholder acceptability attitudes” criterion to get a more accurate gauge of actual reactions to the enactment of each policy option. I suspect that reactions would be highly dependent on the substance of the policy and concrete implementation details. I chose to use website data and interviews to inform this criterion for time and funding reasons. Detailed survey feedback from general citizens, consumers, and breeders as well as other stakeholders would have made the data more rich and valuable for BC government decision-makers.

Future research in this area would include a more thorough analysis of the newly implemented Canadian policies in New Brunswick, Quebec, and Manitoba. Each

program has taken a different approach. Respondents felt that they were still in the implementation stage and were not sure they could assess the adequacy of their province's policy. The content of the regulations also differs significantly. Future research projects could provide an in-depth review of the effectiveness of the content and structure of alternative pet regulations, including an analysis of those that regulate different forms of pet establishments in comparison with those that regulate only breeders.

Future research could also include a review of the development, implementation, and enforcement of the British Columbia *Sled Dog Standards of Care Regulation* 21/2012 to the *PCA Act*. Evaluation of this process would help to inform decisions regarding future development of regulations to the *PCA Act*.

10. Conclusion

Scientific evidence suggests puppies that are poorly bred, exposed to stress, housed in poor living conditions, or provided with scarce positive socialization can suffer throughout their lives. This suffering imposes undue costs on dog guardians and taxpayers. Various forms of public policy have been shown to limit the suffering of dogs and develop protections for consumers.

A thorough review of existing policy approaches reveals three common approaches to ensure that dog breeders meet a set of acceptable standards: regulation, regulation with licensing and permissible inspection, and regulation with licensing and mandatory inspection. The trade-offs among these policy approaches are evident when assessed by a set of three criteria. Effectiveness, government costs, and stakeholder acceptability all provide a standard in order to assess the potential success of an implemented policy.

Regulation with licensing and permissible inspection ranks the highest and is the recommended policy option. No policy can be successful, however, without effectual implementation. Interview feedback suggests that this policy approach must be coupled with adequate consultation, inspector and breeder education, and public and consumer awareness. Any dog-breeder regulation must also address all possible loopholes, be clear, auditable, and reasonable.

Dog breeders have been unregulated far longer than any other agricultural industry in British Columbia and Canada. Citizens in provinces across Canada have called for change, and in three provinces, change has been implemented through tangible regulations. British Columbia can be the next province to support better standards for man's best friend.

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Appendices

Appendix A.

Summary of Animal Welfare Laws

Dog breeders must follow the relevant animal welfare laws, also called animal protection laws, in their jurisdiction. The below information summarizes the protection laws that breeders must abide by in the five countries reviewed for dog breeding specific legislation.

Ireland

The Republic of Ireland established the Protection of Animals Act 1911, c. 27 and it was last amended in 1965. It outlines specific human behaviours that are deemed to be animal cruelty, including an owner who causes or permits any unnecessary suffering to be caused to an animal. Suffering is not defined within the act and is left to the interpretation of the court based on expert testimony from a veterinary surgeon or animal behaviourist (Bates, 2002).

UK

In 1822, the United Kingdom was the first country to pass animal welfare legislation (Wisch, 2010). The most up to date animal welfare legislation in UK is the Animal Welfare Act 2006, c. 45. The act stipulates that any person commits an offense if his act or failure to act permits a domesticated animal to suffer unnecessarily. The act goes on to explain what kind of scenario would make the suffering “unnecessary.” The act also stipulates the duty of a person responsible for an animal to “ensure welfare.” This includes making sure that needs of an animal are met to the “extent required by good practice,” including a suitable environment and diet, ability to exhibit normal behavioural patterns, need to be housed with or apart from other animals, and need to be protected from pain, suffering, injury, and disease. The act also permits the national authority to make regulations that promote the welfare of animals and license activities involving animals.

Australia

State/Territory Law	Provisions for Animal Welfare Applicable to Dogs and Dog Breeders
Australian Capital Territory <i>Animal Welfare Act 1992</i>	A person must not cause death, pain, injury, or neglect. A person must provide an animal with appropriate and adequate food, water, shelter, and exercise.
New South Wales <i>Prevention of Cruelty to Animals Act 1979</i>	Objectives of the act are to prevent cruelty and to promote welfare by requiring that a person provide care for an animal, treat it in a humane manner, and ensure its welfare. A person must provide for the alleviation of pain/suffering and provide access of a sick or injured animal to veterinary treatment. A person must provide an animal with sufficient food, drink, shelter, and adequate exercise.
Northern Territory <i>Animal Welfare Act 1999</i>	Objectives of the act are to ensure animals are treated humanely, to prevent cruelty to animals, and to promote community awareness about the welfare of animals. A person must provide for the alleviation of pain/suffering and provide access of a sick or injured animal to veterinary treatment. A person must provide an animal with appropriate and sufficient food, drink, and shelter, and adequate exercise. The maximum penalty for an offense is 100 penalty units (\$14,100) or up to 12 months imprisonment.

State/Territory Law	Provisions for Animal Welfare Applicable to Dogs and Dog Breeders
Queensland <i>Animal Care & Protection Act 2001</i>	Purpose of the act is to promote responsible care and use of animals, provide standards for the care and use of animals, and protect animals from unjustifiable, unnecessary, or unreasonable pain. A person must provide for the alleviation of pain/suffering and provide access of a sick or injured animal to veterinary treatment. A person must provide an animal appropriate food and water, accommodation, ability to display normal patterns of behaviour, and proper handling. The maximum penalty for an offence is 1000 penalty units (\$110,000) or imprisonment for up to 24 months.
South Australia <i>Animal Welfare Act 1985</i>	A person may not ill treat an animal, intend to cause, or be reckless about causing death or serious harm to an animal. A person ill treats an animal if they cause the animal unnecessary harm, fail to relieve harm, neglect the animal so as to cause it harm. A person must provide an animal with appropriate and adequate food, water, living conditions, or exercise. The maximum penalty for an offence is \$50,000 or 4 years imprisonment.
Tasmania <i>Animal Welfare Act 1993</i>	A person must not act or omit to act causing unreasonable and unjustifiable pain or suffering to an animal. A person also may not terrify an animal, or fail to provide veterinary treatment for a sick or injured animal. A person must also provide an animal appropriate and sufficient food, drink, shelter, and exercise. The maximum penalty is 100 penalty units (\$13,000) or imprisonment for up to 12 months for a person or 500 penalty units (\$65,000) for a corporation.
Victoria <i>Prevention of Cruelty to Animals Act 1986</i>	The purpose of the act is to prevent cruelty to animals, encourage considerate treatment of animals, and improve the level of community awareness about the prevention of cruelty to animals. A person must not be cruel to an animal and cause it unreasonable pain or suffering. A person must provide veterinary care for a sick or injured animal. A person must provide an animal with proper and sufficient food, drink, and shelter. The maximum penalty is 242 penalty units (\$33,880) or imprisonment for up to 12 months for a person or 600 penalty units (\$84,000) for a corporation.
Western Australia <i>Animal Welfare Act 2002</i>	The act provides for the protection of animals by prohibiting cruelty to and other humane or improper treatment of animals. It intends to promote and protect the welfare, safety and health of animals, ensure the proper and humane care and management of all animals in accordance with generally accepted standards and reflect the community's expectation that people who are in charge of animals will ensure that they are properly treated and cared for. A person must not be cruel to an animal and cause it unnecessary harm. A person must take steps to alleviate suffering. A person must provide an animal with proper and sufficient food or water, shelter, shade, or other protection, as is reasonable necessary to ensure its welfare, safety, and health. The maximum penalty is \$50,000 and imprisonment for six years.

To summarize the above chart, for the most part, animal welfare regulations consider the physical well-being of the animal. In some cases, the dogs are protected from worry or being terrified. Queensland considers the animals' normal behaviour and requires proper handling.

United States

The animal welfare laws in the United States are distributed across many acts rather than contained in one place. Henry Cohen, a legislative attorney, summarized all of the federal animal protection statutes in 2009 for the Congressional Research Service. The AWA, though selective in its application, is the only federal statute that considers the protection of animal welfare for a number of species. Each of all 50 states has a different animal cruelty prevention law in place. The best summary available of each state law can be found at the Animal Legal Defense Fund website, aldf.org. They provide a compendium with a separate summary document for each jurisdiction.

Canada

As indicated in the background, Canada has provisions to prevent cruelty to animals contained within the *Criminal Code*. Any person commits an offense who causes unnecessary suffering through causing or permitting to be caused unnecessary pain, suffering, or injury to an animal. Additionally, any person who wilfully kills, maims, wounds, poisons, or injures an animal without lawful excuse has committed an offense.

At the provincial level, animal protection laws are more in depth and specific. The table below provides a general summary of the animal protection laws that are applicable to dog breeders.

Province/Territory Law	Provisions for Animal Welfare Applicable to Dogs and Dog Breeders
Alberta <i>Animal Protection Act</i> , R.S.A. 2000, c. A-41	No person in charge of an animal shall cause or permit it animal to be or continue to be in distress, and no person shall cause an animal to be in distress. This includes deprived of adequate shelter, ventilation, space, food, water, veterinary care, reasonable protection from injurious heat or cold. It also includes animals that are injured, sick, in pain or suffering, abused, subjected to undue hardship, privation, or neglect. Generally accepted practices are exempt. A person in charge of an animal must ensure that the animal has adequate food, water, care when the animal is wounded or ill, protection from injurious heat or cold, and adequate shelter, ventilation, and space. The maximum penalty is a \$20,000 fine.
British Columbia <i>Prevention of Cruelty to Animals Act</i> , R.S.B.C. 1996, c. 372	A person responsible for an animal must care for the animal, including protecting the animal from circumstances that are likely to cause the animal to be in distress. They must not cause or permit the animal to be or continue to be in distress. This includes animals deprived of adequate food, water, shelter, ventilation, light, space, exercise, care, or veterinary treatment, animals kept in unsanitary conditions, not protected from excessive heat or cold, injured, sick, in pain, suffering, abused, or neglected. Generally accepted practices are exempt. The maximum penalty is up to \$75,000 fine and imprisonment for up to two years.
Manitoba <i>The Animal Care Act</i> , C.C.S.M. c. A84	A person who has ownership, possession or control of an animal shall ensure that the animals has an adequate source of food and water, shall provide the animal with adequate medical attention when the animal is wounded or ill, shall provide the animal with reasonable protection from injurious heat or cold, and shall not confine the animal to an enclosure or area with inadequate space, unsanitary conditions, inadequate ventilation or lighting, or without providing an opportunity for exercise. No person shall inflict upon an animal acute suffering, serious injury or harm, or extreme anxiety or distress that significantly impairs its health or well-being. Generally accepted practices are exempt. Maximum penalties for a first offense are six months imprisonment and a \$10,000 fine.

Province/Territory Law	Provisions for Animal Welfare Applicable to Dogs and Dog Breeders
New Brunswick <i>Society for the Prevention of Cruelty to Animals Act</i> , R.S.N.B. 1973, c. S-12	A person who has ownership, possession or care and control of an animal shall ensure that the animals has an adequate source of food and water, shall provide the animal with adequate medical attention when the animal is wounded or ill, shall provide the animal with reasonable protection from injurious heat or cold, and shall not confine the animal to an enclosure or area with inadequate space, unsanitary conditions, inadequate ventilation, with inappropriate other occupants, without providing an opportunity for exercise, or that is in a state of disrepair. The maximum penalty for the act is 18 months imprisonment and a \$200,000 fine.
Newfoundland and Labrador <i>Animal Health and Protection Act</i> , S.N.L. 2010, c. A-9.1	A person shall not cause an animal to be in distress. An owner of an animal shall not permit the animal to be in distress. Distress is the state of being in need of proper care, water, food or shelter, being sick, injured, abused or in pain or of suffering undue or unnecessary hardship, privation, or neglect. A person shall not cut or crop, or permit to be cut or cropped, the ear of a dog, unless in the course of an accepted activity. Cosmetic surgery in domestic animals is also prohibited unless permitted in a code or standard adopted in the Animal Protection Standards Regulation (excepting dewclaw removal for a dog and tail docking for any animal). Accepted euthanasia methods are regulated in great detail. The maximum penalty for the act is a \$50,000 fine and six months imprisonment.
Northwest Territories <i>Dog Act</i> R.S.N.W.T. 1988, c. D-7.	An owner of a dog shall ensure that the dog has adequate food and water, provide it with adequate care when it is wounded or ill, provide it with reasonable protection, having regard to the physical characteristics of the dog, from injurious heat or cold, and provide it with adequate shelter, ventilation, and space. No owner shall permit a dog in his or her charge to be in distress and no person shall cause a dog to be in distress. Distress is a dog deprived of adequate shelter, ventilation, space, food, water, reasonable veterinary care or reasonable protection from injurious heat or cold, a dog that is injured, sick, in pain, or suffering, or abused, subjected to undue hardship, privation, or neglect. Accepted activities are exempt. The maximum penalty for a first offense is three months imprisonment and a \$2,500 fine.
Nova Scotia <i>Animal Protection Act</i> , S.N.S. 2008, c. 33	No person shall cause an animal to be in distress. No owner of an animal or person in charge of an animal shall permit the animal to be in distress. An animal is in distress if it is in need of adequate care, food, water, shelter, or reasonable protection from injurious heat or cold. It is also in distress if it is injured, sick, in pain, suffering undue hardship, privation, or neglect, deprived of adequate ventilation, space, veterinaire care, medical treatment, or abused. Generally excepted practices are exempt. A person in charge of an animal other than a farm animal must also ensure that the animal has an adequate source of food and water, provide the animal with adequate medical attention when the animal is wounded or ill, provide the animal with reasonable protection from injurious heat or cold, and not confine an animal to an enclosure or area with inadequate space, unsanitary conditions, inadequate ventilation, or without providing an opportunity for exercise so as to significantly impair the animal's health or well-being. The maximum penalty for the first offense is a \$10,000 fine and six months imprisonment.

Province/Territory Law	Provisions for Animal Welfare Applicable to Dogs and Dog Breeders
Nunavut <i>Dog Act</i> , R.S.N.W.T. (Nu.) 1988, c. D-7	No owner shall allow a dog to remain unfed or unwatered sufficiently long to amount to cruelty or to cause the dog to become a nuisance. No person shall punish or abuse a dog in a manner or to an extent that is cruel or unnecessary. The maximum penalties are 30 days imprisonment or a fine of \$25.
Ontario <i>Ontario Society for the Prevention of Cruelty to Animals Act</i> , R.S.O. 1990, c. O.36	Every person who owns or has custody or care of an animal shall comply with the prescribed standards of care. Generally accepted practices are exempt. No person shall cause an animal to be in distress and no owner or custodian of an animal shall permit the animal to be in distress. Distress means the state of being in need of proper care, water, food, shelter, or being injured, sick, in pain, suffering, abused, or subject to undue or unnecessary hardship, privation, or neglect. The maximum penalty is two years imprisonment and a \$60,000 fine.
Prince Edward Island <i>Companion Animal Protection Act</i> , R.S.P.E.I. 1988, c. C-14.1	No person shall willfully cause a companion animal unnecessary pain, suffering, or injury. No owner of a companion animal shall cause or permit the companion animal to be, or to continue to be, in distress. A companion animal is in distress if it is in need of food, water, care, shelter, or treatment, if it is sick, in pain, suffering, or has been injured, or if it is abused or subjected to cruelty or neglect. Generally accepted activities are exempt. The maximum penalty is a \$5000 fine.
Quebec <i>Animal Health Protection Act</i> , R.S.Q. c. P-42	The owner or custodian of an animal shall ensure that the safety and welfare of the animal are not jeopardized. The safety or welfare of an animal is jeopardized where the animal does not have access to drinking water or food in quantities and of a quality in keeping with its biological requirements; where the animal is not kept in premises that are suitable, salubrious, clean and adapted to the animal's biological requirements and where the installation (housing) is not likely to affect the animal's safety or welfare; where the animal does not receive the health care required by its condition while it is wounded, sick, or suffering; or where the animal is subject to abuse or ill-treatment that may affect its health. The maximum penalty for a first offense of neglect is a fine of \$12,000. The maximum penalty for a first offense of abuse is a fine of \$25,000.
Saskatchewan <i>Animal Protection Act</i> , 1999, S.S. 1999, c. A-21.1	No person shall cause an animal to be in distress. No person who owns, has custody or control of an animal, or has custody or charge of a minor and the minor is the owner of an animal, shall cause or permit the animal to be or to continue to be in distress. An animal is in distress if it is deprived of adequate food, water, care, or shelter, injured, sick, in pain, or suffering, or abused or neglected. Generally accepted practices are exempt. The maximum penalty is two years imprisonment and a \$25,000 fine.
Yukon <i>Animal Protection Act</i> , R.S.Y. 2002, c. 6	No person shall cause an animal to be or to continue to be in distress. No person who is the owner or the person in charge of an animal shall permit the animal to be or continue to be in distress. Distress means the state of being in need of proper care, food, shelter, or water; being injured, sick, in pain, or suffering; being abused or subject to undue or necessary hardship, privation or neglect; or suffering from a lack of veterinary treatment. Generally accepted practices are exempt if humane. The maximum penalty is a \$10,000 fine and two years imprisonment.

In summary, for most of Canada, no person may cause or permit an animal to be in distress. For most places, this includes being without adequate food, shelter, and water; being injured, sick, in pain, or suffering; being abused or being subject to neglect or suffering from a lack of veterinary care. Generally accepted practices are usually exempt from this definition of causing distress. The penalties range from \$5,000 to \$200,000 and two years of imprisonment (with the exception of Nunavut, whose regulation differs significantly from the balance).