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ANALYTICAL PAPER

An Analytic Paper Presented to the Faculty of the College of Arts and Sciences University of San Francisco

In Partial Fulfillment of the Requirements of the Degree of MASTER OF PUBLIC AFFAIRS

by

Davi Lang

November 22, 2013

A Mandatory Spay/Neuter Ordinance in San Francisco: The Solution to San Francisco's Other Homeless Problem

In Partial Fulfillment of the Requirements of the MASTERS OF PUBLIC AFFAIRS

by

Davi Lang

COLLEGE OF ARTS AND SCIENCES UNIVERSITY OF SAN FRANCISCO

November 22, 2013

Under the guidance and approval of the committee, and approval by all the members, this analytic paper has been accepted in partial fulfillment of the requirements for the degree.

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SECOND ADVISOR	Date
THIRD ADVISOR	Date

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A Mandatory Spay/Neuter Ordinance in San Francisco:

The Solution to San Francisco's Other Homeless Problem

Executive Summary

The dog overpopulation in San Francisco has been straining San Francisco's Department of Animal Care & Control's already limited resources with the increase in dog impoundments and animal cruelty cases, particularly ones involving dogs. At least 33 local governments around the United States have implemented mandatory spay/neuter laws for all dogs as a way to curb the companion animal overpopulation. San Francisco should adopt a similar mandatory spay/neuter law, in which all dogs over the age of six months, with certain exceptions, must be spayed or neutered. This will relieve the strain on Animal Care & Control, will save the City money, and will decrease pain, suffering, and even death among San Francisco's dog population.

Humans have a responsibility to care for companion animals because we domesticated them and allow them to breed in a world where there are not enough homes for them. So humans should take action to decease breeding, especially accidental breeding, so as to decrease the population of unwanted dogs. This human action should be in the form of implementing a mandatory spay/neuter law, so the majority of dogs will be unable to reproduce and so that breeders are restricted to one litter per year to minimize their contribution to the companion animal overpopulation. Not only is spaying and neutering crucial to reducing the population of unwanted dogs, but it also has many health, behavioral, and societal benefits. Spaying and neutering will increase the health of dogs by reducing their chances of developing certain cancers; it will increase their life span; and it will increase public safety and public health by

¹ The use of companion animals in this paper refers to domesticated cats and dogs.

reducing aggression, making them less likely to bite, and reducing the number of stray dogs wandering the streets.

Even though most veterinarians, most members of the animal shelter community, and most animal welfare/rights activists agree that spaying/neutering is vital to decreasing the companion animal overpopulation, they disagree on whether spaying/neutering should be mandatory or simply encouraged. Proponents of mandatory spay/neuter laws argue that they will save local governments money, produce more revenue, and improve public safety and public health. On the other hand, opponents argue that low-cost spay/neuter programs are more effective at decreasing the companion animal overpopulation, mandatory spay/neuter laws punish poor people and will result in more companion animals being abandoned in shelters, they discourage people from taking their animals to the vet or to the animal shelter for fear of being reported to authorities for having an unaltered animal, they punish responsible companion animal guardians² and breeders, they waste public resources, and they are difficult to enforce.

An analysis of shelter data from two municipalities—Clark County, Nevada, and Los Angeles County, California—that have implemented mandatory spay/neuter laws reveals that recent dog intake and euthanasia rates are the lowest they have been in the past two decades, indicating that these laws are successful at reducing the unwanted dog population. In 2005, San Francisco's Commission of Animal Control and Welfare considered implementing a mandatory spay/neuter ordinance for all dogs, but it never went past Commission meetings. However, in 2006, San Francisco implemented a mandatory spay/neuter law for Pit Bulls, which resulted in a decrease in Pit Bull euthanasia rates. The success of this law can be partly attributed to the free spay/neuter services for Pit Bulls offered by the San Francisco Society for the Prevention of

² I will refer to people as "guardians" rather than "owners" because companion animals are individuals with their own distinct personalities, despite their legal status as property.

Cruelty to Animals (SF SPCA). Other free spay/neuter services for any breed of dog are also offered in various locations in San Francisco, which would help ensure the success of a mandatory spay/neuter ordinance for all dogs.

San Francisco should implement a mandatory spay/neuter ordinance that requires that all dogs six months or older must be spayed or neutered, with exemptions for dogs who are too old or sick to undergo the spay/neuter surgery and dogs whose health would be threatened by the spay/neuter surgery. In addition, guardians who do not want to spay or neuter their dogs must obtain an intact dog license or a breeding license. Animal Care & Control can enforce the mandatory spay/neuter law by modifying its dog licensing system to assign different colored tags for different licenses—regular dog licenses, intake dog license, and breeding license.

Furthermore, breeders must show proof that they have a breeding license by putting the license number on their advertisements or sales receipts, and they must be restricted to one litter per year and the number of unaltered animals they are allowed to have should be limited, as well, so as to not further contribute to the companion animal overpopulation problem. And finally, penalties for violations of the mandatory spay/neuter law should be civil, rather than criminal.

Background

Companion Animal Overpopulation or Unwanted Companion Animals

United States. An estimated 70,000 puppies and kittens are born everyday in the U.S. (about 25.5 million per year) (City & County of San Francisco Department of Animal Care & Control, 2013c, para. 1), "yet millions are euthanized in shelters every year, costing shelters \$1 [to \$2] billion annually—a waste of money and life ([citation omitted] Frank, 2004, p. 108)" (Lang, 2012, p. 5; Zanowski, 2012, p. E24). With only 10,000 human babies born each day, seven puppies and kittens are born for every one human baby born (City & County of San

Francisco Department of Animal Care & Control, 2013c, para. 1; Coleman, Veleanu, & Wolkov, 2011, p. 397). So even if every human on Earth adopted a companion animal, there still would be a significant shortage of homes for companion animals (City & County of San Francisco Department of Animal Care & Control, 2013c, para. 1; Coleman, Veleanu, & Wolkov, 2011, p. 397). In the U.S. alone, an estimated 7.5 million plus companion animals are homeless (City & County of San Francisco Department of Animal Care & Control, 2013c, para. 2). "Many of these [unwanted] animals lead lives of misery, privation, disease[,] and neglect," San Francisco's Department of Animal Care & Control (2013) explains, "[t]he others are spared this torture only by being killed in animal shelters throughout the country. Ironically, the source of all this misery is very often people who supposedly care for animals. Blissfully ignorant of the consequences, owners allow their pets to breed, causing mass population explosions. By allowing their pet to have even one litter, they are sentencing these animals and their offspring to lives of misery and almost certain death. And it is all so unnecessary" (City & County of San Francisco Department of Animal Care & Control, 2013c, paras. 2-3). Although no uniform reporting system for animal shelters exists, the Humane Society of the United States (2009) estimates that approximately 2.7 million adoptable cats and dogs are euthanized in U.S. shelters every year (Humane Society of the United States, 2009, "U.S. shelter and adoption estimates").

The companion animal overpopulation problem, which Mark Lawrie, Margaret Gaal, Ann Margaret Withers, Isabelle Widdison, and Magdoline Awad (1996) dub the "unwanted companion animals (UCA)" problem (Lawrie, Gaal, Withers, Widdison, & Awad, 1996, p. 87), began in the 1940s when post-World War II urbanization concentrated companion animals in cities and when advances in veterinary medicine improved the health and fertility of companion animals, so they lived longer and produced more litters (Moulton, Wright, & Rindy, 1991, para.

1; Zawistowski, Morris, Salman, & Ruch-Gallie, 1998, p. 194; Coleman, Veleanu, & Wolkov, 2011, p. 397). In addition, higher wages and suburbanization subsequently created new housing developments with backyards, which were ideal for families to have companion animals (Coleman, Veleanu, & Wolkov, 2011, p. 397). While some companion animal guardians choose to breed their animals, others fail to get their animals spayed or neutered for various reasons and negligently let them roam free and reproduce with other animals (Coleman, Veleanu, & Wolkov, 2011, p. 398). "The overpopulation problem has only increased since then" (Lang, 2012, p. 4). One of the problems in addressing the companion animal overpopulation problem is the "lack of reliable data" due to the absence of a national or even a statewide standard for maintaining shelter data (Lawrie, Gaal, Withers, Widdison, & Awad, 1996, p. 87).

California. The companion animal problem is so severe in California that it prompted action by the state legislature. On February 23, 2007, California Assemblyman Lloyd Levine (D-Rancho Cucamonga & San Bernadino) introduced the California Healthy Pets Act (AB 1634), which would require most dogs and cats over four months old to be spayed/neutered (California Healthy Pets Act of 2007; NPR, June 11, 2009). Although this new law was estimated to cost California about \$250 million annually, it would have saved the State a considerable amount of money, as the California Department of Health Services reported that between 1995 and 2005, California spent about \$2.75 billion taking-in, housing, and euthanizing unwanted companion animals (Holzer, 2008, p. 17; Fiala, April 2007, p. 1). The bill garnered support from the California Veterinary Medical Association (CVMA), the California Animal Control Directors' Association, and the Humane Society of the United States (HSUS) (Fiala, April 2007, pp. 72, 1). Even celebrities such as Lionel Richie, Jane Valez Mitchell, Diane Keaton, Ben Stein, and

former "The Price is Right" host, Bob Barker, lobbied in support of the bill (Barker et al., 2007). Unfortunately, the bill died in Senate committee (California Healthy Pets Act of 2007).

"[A] poll conducted by Zogby International in 2008...[showed that] 80 percent of Californians support a law that would require dogs and cats over the age of six months to be spayed/neutered, 50 percent of which strongly support and 30 percent of which somewhat support (Social Compassion in Legislation, 2009)" (Lang, 2012, p. 7). In addition, guardians of companion animals who were not spayed or neutered were asked "Why is your pet(s) not spayed or neutered?" and 28% responded with "Pet is used for breeding or want to have one litter," and 11% responded with "Do not see the need," while 29% responded with "Pet is too old, young or ill," 14% responded with "Plan to but haven't done it yet," 8% responded with "Cannot afford," and 10% responded with "other" reason (Social Compassion in Legislation, 2009). "In addition, 81 percent of Californians surveyed believed that 'individuals who sell cats or dogs for profit should obtain a business license, pay sales tax, and report their income (Social Compassion in Legislation, 2009)" (Lang, 2012, p. 7). These poll results show that a majority of Californians support both a state mandatory spay/neuter law and state regulation of the sale of dogs and cats. The poll results also indicate that cost is not a major reason that companion animal guardians have not spayed or neutered their animals in that one of the top two reasons given in the poll was that they used the animal to breed, the other top reason being that the animal was too young, old, or ill to safely undergo the surgery.

San Francisco and San Francisco Department of Animal Care & Control

The San Francisco Department of Animal Care & Control is the city agency responsible for caring for all of San Francisco's animals, both domestic or wild, including those who are sick, injured, or simply unwanted (City & County of San Francisco Board of Supervisors, September

10, 2013, p. 576). As an open-admission shelter, ACC takes in all animals, regardless of their condition or adoptability and "regardless of budget and operational capacity" (San Francisco Board of Supervisors, Supervisor Scott Wiener, 2013, para. 2). In addition to providing shelter services, selling dog licenses, and informing the public about responsible companion animal guardianship (City & County of Department of San Francisco Animal Care & Control, 2013a), Animal Care & Control also dispatches Animal Control Officers to patrol San Francisco and "[r]espond[] to animal-related emergencies," "rescu[ing] animals in distress," impounding stray dogs, "enforce[ing] all [state and local] animal control [and welfare] laws, and investigating animal cruelty cases (City & County of San Francisco Department of Animal Care & Control, 2013b, "Deputy Animal Control Officers"). Animal Care & Control also adopts out animals and has an adoption agreement with the San Francisco SPCA that Animal Care & Control will not euthanize any adoptable animal and that the SPCA will take any adoptable animal offered to it by the Department (City & County of San Francisco Department of Animal Care & Control, April 1, 1994). Partly because of this Agreement, Kat Brown, Deputy Director of Animal Care & Control, says, "ACC does not euthanize for space" (City & County of San Francisco Commission of Animal Control and Welfare, January 8, 2009, "6A Discussion only of no-kill policies," para. 9).

On November 7, 2013, the San Francisco Board of Supervisors Neighborhood Services and Safety Committee held a hearing on the "Operational and Budgetary Needs of Animal Care and Control" (San Francisco Government Television, November 7, 2013). Representatives from Animal Care & Control and the San Francisco City Administrator's Office stated that the number of dogs that the Department has taken in has steadily increased. The statistics provided on Animal Care & Control's website show that between 2007 and 2011, the number of dogs it took

in increased by 25% from 1,939 dogs in fiscal year 2007-08 to 2,424 dogs in fiscal year 2010-11 (City & County of San Francisco Department of Animal Care & Control, 2013d). However, at the hearing, Adam Nguyen, Director of Budget and Planning in the City Administrator's Office, reported that between fiscal years 2007-08 and 2012-13, the number of dogs that Animal Care & Control took in has increased by 42% over the past 5 years, (San Francisco Government Television, November 7, 2013). Nevertheless, the number of dogs impounded at Animal Care & Control has increased significantly, yet the Department's roughly \$4 million budget has remained relatively static for at least the past decade, according to Nguyen, with the exception of the current fiscal year (2013-14) wherein it received an additional \$802,000, which is slated for capital improvements, including floor and roof repairs and a plan to determine what other structural improvements the building needs (San Francisco Government Television, November 7, 2013). Animal Care & Control Director Rebecca Katz also noted that dogs require more care and resources, including cleaning, socializing, and veterinary costs (San Francisco Government Television, November 7, 2013).

This substantial increase in the number of dog impoundments is severely impacting the Department, which is overworked, understaffed, underfunded, and has also seen a seen a significant increase in the number of animal cruelty cases over the past few years (San Francisco Board of Supervisors, Supervisor Scott Wiener, September 10, 2013; KTVU, September 12, 2013). According to Nguyen, it is an animal shelter industry best practices standard that each dog receives at least 15 minutes of human interaction, but there are so many dogs at Animal Care & Control that Animal Care Attendants, each of whom is responsible for approximately 50 dogs and must clean kennels, feed dogs, and provide adoption and redemption services, are not able to spend 15 minutes with each dog (San Francisco Government Television, November 7, 2013).

This increase in workload has led to cutbacks. "Services are increasing. Public demand is increasing. And we just don't have the funds to make the change," says Animal Care & Control Captain Vicky Guldbech (KTVU, 2013, para. 5). To compensate, the Department has cut services and hours during which the shelter is open to the public (KTVU, 2013, para. 7), making it difficult for shelter employees to rescue stray and abused animals (KTVU, 2013, para. 1) and care for them in the shelter (KTVU, 2013, para. 4). For example, the shelter is no longer open to the public seven days a week, but closed two days a week, and there are fewer Animal Control Officers on duty at any given time, and they are no longer on duty 24 hours a day (KTVU, 2013, paras. 7, 8, 9). However, Supervisor Wiener reported at the hearing that the shelter is now open seven days a week again (San Francisco Government Television, November 7, 2013). In addition, this shortage in Animal Control Officers means that they are only able to respond to emergency calls and that Animal Care & Control is unable to pursue and investigate animal cruelty cases (San Francisco Board of Supervisors, Supervisor Scott Wiener, September 10, 2013, para. 4). "The number of animal cruelty cases – which require investigations, hearings, and care for the animals – has [increased by 15% over the past decade and had] doubled in the last year" (San Francisco Government Television, November 7, 2013; San Francisco Board of Supervisors, Supervisor Scott Wiener, 2013, para. 5). Nguyen also notes that investigations require more time and field visits than other service calls (San Francisco Government Television, November 7, 2013). In addition, the number of calls for services that Animal Control Officers receive has increased over the past five years, with a significant increase from fiscal year 2011-12 (12,143) calls) to 2012-13 (12,774 calls), according to Nguyen (San Francisco Government Television, November 7, 2013). Medical care is also very expensive, and, combined with the increase in animal abuse, both are draining Animal Care & Control's resources (KTVU, 2013, para. 11).

This Capstone project analyzes the effectiveness of mandatory spay/neuter laws in various municipalities in the U.S. and the need for such a mandatory spay/neuter ordinance in San Francisco. Mandatory spay/neuter laws restrict and regulate companion animal reproduction, and the specifics of such laws vary. For example, some require companion animals to be spayed/neutered before they are adopted out, some require all dogs of a certain breed to be spayed/neutered, and others require all companion animals over a certain age to be spayed/neutered (Holzer, 2008, p. 21). I will argue for a mandatory spay/neuter law that requires all dogs over a certain age to be spayed/neutered with certain exemptions. I am focusing on dogs because, according to Supervisor Wiener's September 10, 2013 Press Release, "Dogs are the most resource-intensive animals that [the Department] handles" (San Francisco Board of Supervisors, Supervisor Scott Wiener, September 10, 2013), requiring more time, money, space, treatment, and other resources, according to Nguyen (San Francisco Government Television, November 7, 2013), and there has been a dramatic increase in the number of dog impoundments and animal cruelty cases involving dogs at San Francisco's public shelter. At least 33 municipalities in the U.S. have implemented mandatory spay/neuter laws in which dogs over a certain age are required to be spayed/neutered with certain exceptions. See Appendix A for a list of all 33 municipalities and the details of their laws. This Capstone analyzes data from Clark County, Nevada, and Los Angeles County, California, the only municipalities from which I was able to obtain data, to determine whether or not their mandatory spay/neuter laws were effective at decreasing dog intake and euthanasia numbers.

Primary Conclusion

San Francisco should pass a mandatory spay/neuter ordinance that requires that all dogs over a six months or older to be spayed or neutered, with certain exemptions, because it would

not only decrease the number of unwanted dogs in San Francisco who require assistance from Animal Care & Control, saving the City money, but the ordinance would also increase revenue for the agency from fines and licensing fees. Shelter data from Clark County, Nevada, and Los Angeles County, California, reveal that recent dog intake and euthanasia rates are the lowest they have been in the past two decades, indicating that these laws are successful at reducing the unwanted dog population, and thus the shelters have saved taxpayer money.

Detailed Examination of Evidence

Human Responsibility

Dogs cannot be blamed for the strain they put on city and county resources for they are simply succumbing to their natural instincts to procreate. We, humans, however, domesticated them and allow them to breed uncontrollably, and they cannot survive without our help, so we must come up with a solution. Angela K. Fournier and E. Scott Geller (2004) argue that the companion overpopulation problem is a "societal 'people problem'" and that human behavior is to blame, thus the solution lies in human action (Fournier & Scott, 2004, p. 51). Similarly, Joshua Frank (2004) argues that humans have a responsibility to address the companion animal overpopulation problem because humans caused it by domesticating animals (Frank, 2004, p. 108). For 8,000 to 10,000 years humans have selfishly bred dogs and cats to fit their needs, transforming wild animals into domesticated animals who depend on humans for survival (Sturla, 1993, p. 928; Frank, 2004, p. 108), "so we are responsible for their welfare, which includes preventing the birth of unwanted companion animals and reducing the [ir]...population (Frank, 2004, p. 107, 108, 128)" (Lang, 2012, p. 6). Furthermore, Carol Moulton, Phyllis Wright, and Kathryn Rindy (1991) argue that "[it] is not a 'shelter problem' but a community problem," therefore, we must work together to solve it (Moulton, Wright, & Rindy, 1991, p. 1176).

In addition, Fournier and Geller (2004) argue that the failure of companion animal guardians to engage in necessary "pet-maintenance behaviors" and "pet sterilization" contributes to companion animal overpopulation (Fournier & Scott, 2004, p. 52). Pet-maintenance behaviors include animal training, such as house or "potty" training and other animal-behavior training, and pre-acquisition behaviors, such as analyzing personal resources and researching the breed before acquiring a companion animals (Fournier & Scott, 2004, p. 52). The failure to engage in these pet-maintenance behaviors often leads to animal relinquishment, and these animals must find new homes. "Therefore," Frank (2004) writes, "it is human actions and inaction that perpetuate dog overpopulation" (Frank, 2004, p. 108). But "[i]rresponsible animal guardians" who do not spay or neuter their animals are one of the main contributors to the companion animal overpopulation problem (Sturla, 1993, p. 929). And now there are not enough homes for all of the dogs and cats because people do not spay or neuter their companions, and they continue to reproduce (Bryant, 2008, p. 312). We must pass laws to restrict the breeding of companion animals. Moulton, Wright, and Rindy (1991) suggest that passing "[l]aws that force change in human behavior" is key to controlling companion animal overpopulation (Moulton, Wright, & Rindy, 1991, p. 1174; Fournier & Geller, 2004, p. 52). We need to get more people to spay/neuter their dogs in order to stop people from bringing more dogs into a world where there are not enough homes for them, and the best way to do that is to force them to spay/neuter through a mandate. Encouraging people to spay/neuter their companions is not enough to solve the companion overpopulation problem, which is becoming exponentially worse.

Spaying/Neutering

According to Gemma N. Zanowski, in "A Fresh Look at Spay/Neuter Legislation: The Journey to a Middle Ground," "It is commonly accepted that spaying and neutering pets is the

most effective way to address [the companion animal overpopulation problem]" (Zanowski, 2012, E24; Coleman, Veleanu, & Wolkov, 2011, p. 394, 404; Frank & Carlisle-Frank, 2007, p. 741). John Wenstrup and Alexis Dowidchuk (1999) performed a study of 186 animal shelter and animal control agencies in 42 states, and more than 80% said spaying/neutering—including mandatory spay/neuter laws, low-cost spay/neuter programs, and spay/neuter clinics—was most effective at reducing companion animal overpopulation (Wenstrup & Dowidchuk, 1999, p. 311). "Decreased fertility," Joshua M. Frank and Pamela L. Carlisle-Frank (2007) argue, "[will] lead to decreased birth rates which will in turn lead to fewer unwanted companion animals. Fewer unwanted animals should lead to reduced animal intake at shelters, which in turn leads to fewer animals killed at shelters" (Frank & Carlisle-Frank, 2007, p. 741). Carol Moulton, Phyllis Wright, and Kathryn Rindy (1991) note, "Animals [who] are neutered cannot add to the problem of overpopulation" (Moulton, Wright, & Rindy, 1991, p. 1174). In addition, Frank (2004) concludes from his human and companion animal dynamics model that spay/neuter campaigns are the most effective method of dog overpopulation reduction over the long term (Frank, 2004, p. 127) and that "the benefits for humans reducing dog overpopulation outweigh the costs to humans of reducing dog overpopulation" (Frank, 2004, p. 128). He argues that birth rates have such a strong effect on overpopulation that even a small change in birth rates can dramatically reduce overpopulation over the long term (Frank, 2004, p. 127). So by preventing companion animals from reproducing, spay/neuter surgery will reduce birth rates and the overall population.

Spaying/neutering also has many health, behavioral, and societal benefits. For example, spaying female dogs and cats "helps prevent uterine infections and breast cancer, which is fatal in about 50 percent of dogs and 90 percent of cats" (American Veterinary Medical Association, 2013, para. 2; American Society for the Prevention of Cruelty to Animals, 2013, "1. Your female

pet"). And neutering male dogs and cats "prevents testicular cancer, if done before six months of age" (American Veterinary Medical Association, 2013, para. 2; American Society for the Prevention of Cruelty to Animals, 2013, "2. Neutering provides"). "The surgery also extends the life of dogs by one to three years and three to five years for cats ([Coleman, Veleanu, & Wolkov, 2011, p. 404], People for the Ethical Treatment of Animals, n.d., para. 3; Los Angeles Animal Services Department, n.d., para. 8). In addition, spaying prevents females from going into heat, which is stressful and uncomfortable (Los Angeles Animal Services Department, n.d., para.12; People for the Ethical Treatment of Animals, n.d., para. 3)" (Lang, 2012, p. 10). And Henry Mark Holzer (2008) argues that it costs less to spay/neuter an animal than it does to treat the diseases spaying/neutering prevents and less than the emotion pain companion animal guardians would experience (Holzer, 2008, p. 12).

"Spaying and neutering also reduce[] undesirable behaviors, such as marking and spraying (Bushby & Griffin, 2011, para. 1; Los Angeles Animal Services Department, n.d., para. 19; Zanowski, 2012, E25)...Sterilization also reduces aggression, fighting, and dog bites by balancing their hormones (Bushby & Griffin, 2011, para. 1; Los Angeles Animal Services Department, n.d., para. 14; Zanowski, 2012, E25; Los Angeles Animal Services Department, n.d., para. 19). According to Coleman, Veleanu, & Wolkov (2011), "unaltered dogs are statistically 2.6 times more likely to bite than sterilized animals" (p. 399). The Centers for Disease Control and Prevention even recommend spaying or neutering to decrease aggression and to help prevent dog bites (Centers for Disease Control and Prevention, 2009, para. 4). The surgeryalso reduces male roaming in search of a mate, which decreases their chances of being hit with a vehicle (Bushby & Griffin, 2011, para. 1; Zanowski, 2012, E25American Society for the Prevention of Cruelty to Animals, 2012, para. 7; Los Angeles Animal Services Department, n.d.; People for the

Ethical Treatment of Animals, n.d., para. 13). So sterilization makes dogs and cats healthier and safer, and thus prolongs their lives" (Lang, 2012, pp. 10-11), and the risk of complications due to spay/neuter surgery or the required anesthesia is very low (American Veterinary Medical Association, 2013, para. 4).

Arguments For and Against Mandatory Spay/Neuter Laws

Though veterinarians, the animal shelter community, and animal welfare/rights advocates agree that spaying/neutering is vital to reducing the companion animal overpopulation (Coleman, Veleanu, & Wolkov, 2011, p. 394, 404; Frank & Carlisle-Frank, 2007, p. 741), there is disagreement over whether spaying/neutering should be mandatory or simply encouraged (Zanowski, 2012, E24). The proponents of mandatory spay/neuter laws argue that they would save local governments money, produce more revenue, and improve public safety and public health. On the other hand, opponents argue that low-cost spay/neuter programs are more effective at decreasing the companion animal overpopulation, that mandatory spay/neuter laws punish poor people and will result in more companion animals being abandoned in shelters, that they discourage people from taking their animals to the vet or to the animal shelter for fear of being reported to authorities for having an unaltered animal, that they punish responsible companion animal guardians and breeders, that they waste public resources, and are difficult to enforce. Below is a discussion of these arguments.

Arguments for mandatory spay/neuter laws. Mandatory spay/neuter laws would save local governments money and produce revenue. As discussed earlier, the companion animal overpopulation in San Francisco has overloaded Animal Care & Control's staff and resources.

Jean McNeil and Elisabeth Constandy write, "Pet overpopulation...puts a strain on animal control agencies, which must care for, house, and often euthanize millions of unwanted animals

annually" (McNeil & Constandy, 2006, p. 452). Coleman, Veleanu, and Wolkov (2011) also note the high cost of homeless companion animals on local governments (Coleman, Veleanu, & Wolkov, 2011, p. 400). Mandatory spay/neuter laws would not only reduce the number of animals that Animal Care & Control must care for, adopt out, and euthanize, saving it money, but it would also raise revenue through both citation and licensing payments and through regulating and taxing the birth and sale of puppies.

Mandatory spay/neuter laws would also improve public safety and public health because they would decrease the companion animal overpopulation, resulting in fewer stray dogs wandering the streets and fewer unaltered dogs in general. Stray dogs scare away, injure, or kill wildlife and often "frighten or injure small children" (Zanowski, 2012, E25). Stray dogs also increase the risk of exposure to rabies (McNeil & Constandy, 2006, p. 452). And unaltered dogs tend to be more aggressive (Zanowski, 2012, E25). According to the Centers for Disease Control and Prevention (CDC) (September 23, 2013), there are about 4.5 million dog bites every year (Centers for Disease Control and Prevention, September 23, 2013, "Why be concerned about dog bites?"). The CDC (September 23, 2013) recommend spaying/neutering animals, which "often reduces aggressive tendencies," as one way to help prevent dog bites (Centers for Disease Control and Prevention, September 23, 2013, "How can dog bites be prevented?"). According to Karen Delise, in Fatal Dog Attacks: The Stories Behind the Statistics (as cited in Coleman, Veleanu, & Wolkov, 2011), unaltered dogs are 2.6 times more likely to bite than altered dogs (Coleman, Veleanu, & Wolkov, 2011, p. 399), which creates a public safety problem, especially for children, who "are the most frequent victims" of dog bites (Gershman, Sacks, & Wright, 1994, p. 913). According to Best Friends Animal Society (as cited in Coleman, Veleanu, & Wolkov, 2011), "although unaltered males represent 'only about 40% of the household dog

population[, they] account for more than 80% of all dog bites and an even higher percentage of serious' injuries and deaths" (Coleman, Veleanu, & Wolkov, 2011, p. 400). One San Francisco Animal Welfare Commissioner stated, "If the public knew the stats on dog bites, there would be support of mandatory spay neuter across the board," and "[m]andatory spay neuter across the board will address [the dog aggression] problem" (City & County of San Francisco Commission of Animal Control and Welfare, July 14, 2005, "5. New Business"). Coleman, Veleanu, and Wolkov (2011) point out that the more unaltered dogs there are, the greater the public safety risk (Coleman, Veleanu, & Wolkov, 2011, p. 400). Unaltered dogs, especially unaltered stray dogs, also pose a public health problem in that they might further the spread of rabies. Coleman, Veleanu, and Wolkov (2011) argue that spay/neuter laws will also "protect[] citizens and their pets" and will "rescu[e] many dogs and cats from horrible lives and deaths" (Coleman, Veleanu, & Wolkov, 2011, p. 424). In addition, stray dogs rummage through garbage and recycling bins and defecate and urinate in public streets and parks and private lawns and gardens (Zanowski, 2012, E25). Making it mandatory for guardians to spay/neuter their companion animals will lead to widespread spaying/neutering, thereby decreasing aggression among the dog population. It will also increase the safety of other companion animals because there would be fewer aggressive dogs or less aggression in dogs.

Lastly, despite the name "mandatory," mandatory spay/neuter laws are not actually mandatory. Coleman, Veleanu, and Wolkov (2011) argue that mandatory spay/neuter laws "typically include exceptions for animals who meet certain criteria, such as old, sick, or service animals, as well as language providing the owner with the option of purchasing an intact permit or a breeding permit. Thus, it appears that the combination of exceptions and the choice of purchasing permits exempting owners from the requirement that their dog or cat be

spay/neutered means that, despite the language and common beliefs, these laws are not truly mandatory" (Coleman, Veleanu, & Wolkov, 2011, p. 408). If someone does not want to spay or neuter his or her companion animal, he may obtain an intact dog license or a breeding license and pay a fee. So mandatory spay/neuter laws do not really force people to spay or neuter their animals.

Arguments against mandatory spay/neuter laws. One main argument against mandatory spay/neuter laws is that low-cost spay/neuter programs are more effective, and thus mandatory laws are not necessary. Gemma Zanowski (2012) argues that low-cost spaying/neutering programs are more viable than mandatory spay/neuter laws in terms of reducing the number of animals euthanized (Zanowski, 2012, E25). She cites El Dorado, Mendocino, Monterey, Nevada, Placer, and Ventura counties, which offer low-cost spay/neuter programs, as having substantially greater reductions in euthanasia of dogs than Santa Cruz County, which has a mandatory spay/neuter law (Zanowski, 2012, E25), though she fails to provide numbers indicating such. However, Fournier and Geller (2004) note that low-cost spay/neuter programs are based on the assumption that companion animal guardians fail to spay/neuter their animals because they cannot afford to do so (Fournier & Geller, 2004, p. 53), but a survey of 393 people, 209 of which had dogs, living in four communities in Massachusetts revealed that less only 5.3% of unaltered companion animals were unaltered for this reason (Manning & Rowan, 1992, pp. 192-198). The results indicate that cost was not "a significant barrier to sterilization" in Massachusetts (Manning & Rowan, 1992, pp. 200-201). This "suggest[s] that low-cost spay/neuter programs may not be sufficient to reduce the companion animal overpopulation problem" (Fournier & Geller, 2004, p. 53). The survey results showed that the more common reasons given for not spaying/neutering were that the animal was

confined and therefore had no access to other animals, that the guardians wanted to breed the animal, that the animal was too young, and that spaying/neutering was inconvenient (Manning & Rowan, 1992, p. 198). If cost is not the reason people fail to spay/neuter their companion animals, then low-cost spay/neuter programs alone will not encourage them to do so. Henry Mark Holzer (2008) argues that spay/neuter laws must be mandatory in order to have a significant impact on controlling companion animal overpopulation (Holzer, 2008, p. 18). Nevertheless, "[1]ocalities should [still] offer low-cost spay/neuter vouchers to qualifying low-income residents who are not able to afford the cost of a spay/neuter surgery to help them comply with MSN laws" (Lang, 2012, p. 11).

Another argument against mandatory spay/neuter laws is that they punish poor people and will result in more people surrendering their animals because they do not want to spay or neuter their companion animal or because they do not want to pay for the surgery. San Francisco Animal Welfare Commissioner Pam Hemphill stated, "owning an animal has financial responsibilities. If you can't afford to spay/neuter, can you afford to have a pet?" (City & County of San Francisco Commission of Animal Control and Welfare, August 13, 2009, "6A. Public Comment"). Companion animal guardians "have certain responsibilities that cost money. The spay/neuter surgery is a one-time cost, unless there are complications. If someone is unable to afford even the low-cost price [of a spay/neuter surgery], how will [he or she] be able to afford the recommended annual visits to the veterinarian and necessary costs of taking care of a [companion animal], such as food,...training class, pet license, grooming, dental cleanings, vaccinations, and medication such as flea and tick control?...[I]f someone is unable to afford a one-time expenditure at the low-cost price, they will probably not be able to provide adequate care for the[ir companion animal]" (Lang, 2012, p. 11).

Some argue that mandatory spay/neuter laws discourage people from going to the veterinary office or from purchasing a pet license because they are afraid of being reported for having an unaltered dog. For example, the American Veterinary Medial Association "does not support regulations or legislation mandating spay/neuter or privately owned, non-shelter dogs and cats" because they "may contribute to pet owners avoiding licensing" (American Veterinary Medical Association Executive Board, 2009, para. 2). In addition, some of the public comments in the August 11, 2005 Animal Welfare Commission meeting regarding a possible mandatory spay/neuter law were that veterinarians would be required to report unaltered animals, which may scare people from getting their animals vaccinated if they are unaltered, for fear of being reported to Animal Care & Control (City & County of San Francisco Commission of Animal Control and Welfare, July 14, 2005, "5. New Business"). But, as mentioned above, most mandatory spay/neuter laws provide the option to obtain an intact license or breeding license if someone does not want to spay or neuter their companion animal (Lang, 2012, p. 12). "So when people with unaltered [companion animals] go to purchase their pet licenses, they may also purchase an unaltered pet license. In addition, people who do not follow laws governing pet "ownership," such as failing to spay or neuter their pet when mandatory and failing to obtain an unaltered animal license, are not likely to follow any laws governing pet "ownership," such as obtaining a pet license. So mandating th[at] people spay or neuter their pets is not likely to...scare people from obtaining pet licenses because they would just as easily be able to obtain an unaltered pet license at the same time, and those who decide not to follow the MSN law are not likely to follow [any other pet-maintenance] law anyway" (Lang, 2012, p. 12). In addition, in September, the San Francisco Board of Supervisors passed the "due process for all ordinance," which separates the criminal process from the immigration process and prohibits law

enforcement from reporting undocumented immigrants to federal immigration authorities. Local governments could similarly prohibit veterinarians from reporting to animal control agencies that animals are unaltered, so companion animal guardians can take their animals to the vet without fear of being reported.

In addition, some argue that mandatory spay/neuter laws punish responsible companion animal guardians and responsible breeders. For example, "North Carolina Responsible Animal Owners Alliance is against mandatory spay/neuter and breeder licensing laws because they 'punish[] responsible pet owners and breeders while ignoring irresponsible animal owners' (North Carolina Responsible Animal Owners Alliance, n.d.a, para. 5)" (Lang, 2012, p. 12). One responsibility of companion animal guardians is to spay or neuter their companion animals (Irwin, 2001, p. 2). So if a person fails to spay or neuter his or her companion animal, he or she is probably an irresponsible companion animal guardian (Lang, 2012, p. 12). Mandatory spay/neuter laws target these irresponsible companion animal guardians who fail to spay or neuter their companion animals by mandating that they either spay/neuter their companion animal or obtain an intact license or breeder license. Thus, responsible companion animal guardians who have already spayed or neutered their companion animals would be unaffected by mandatory spay/neuter laws. In addition, a responsible breeder follows the law, obtaining the proper breeding license and following all companion animal breeding regulations, if there are any. So mandatory spay/neuter laws do not punish responsible breeders because they follow the law anyway. Mandatory spay/neuter laws would force both irresponsible companion animal guardians and irresponsible breeders to become responsible by spaying/neutering their companion animals and obtaining the proper breeding license, respectively (Lang, 2012, p.12).

Finally, some opponents feel that mandatory spay/neuter laws waste public resources and are difficult to enforce. For example, Gemma Zanowski argues that mandatory spay/neuter laws waste public resources on administrative expenses when they would be put to better use in funding spay/neuter programs (Zanowski, 2012, p. E26). There are two main ways to enforce mandatory spay/neuter laws. First, animal control agencies can dispatch officers to knock on doors to inspect whether or not people have spay or neutered their companion animals and to issue citations or fix-it tickets forcing people to either spay/neuter or obtain the proper intact or breeder license. Though this requires more resources, it would be quite effective at increasing the number of companion animals who are spayed/neutered, raising revenue for the animal control agency and decreasing the number of unwanted dogs the agency would have to care for. And the second method of enforcing mandatory spay/neuter laws is to enforce the law for people who redeem their lost companion animals. Kim Sturla (1993) supports this method of enforcement, explaining that "[w]hen someone comes into a shelter to claim a lost animal, they must show proof that the animal has a license and is altered or has a breeding permit" (Sturla, 1993, p. 932). If their companion animal is unaltered, they will be issued a citation or fix-it ticket forcing them to either spay/neuter or purchase the proper intact dog or breeder license. This second method of enforcement would require minimal additional resources.

Shelter Data from Municipalities with Mandatory Spay/Neuter Laws

As mentioned earlier, at least 33 cities and counties across the U.S. have implemented mandatory spay/neuter laws (see Appendix A). I contacted animal control departments and shelters of 18 of these municipalities to acquire shelter data to show how mandatory spay/neuter laws are at decreasing the number of dogs animal shelters must care for, adopt out, or euthanize. I requested the number of dogs the animal control departments and shelters took in each year (10).

years) before the MSN law took effect and how many they took in every year after the law took effect. I also requested the number of dogs whose guardians redeemed them, the number of dogs who were adopted out, and the number of dogs who were euthanized for the same years. Given the time constraints of this Capstone project, i.e. I had about five weeks to obtain shelter data from 33 cities and counties across the U.S., and due to the fact that almost none of them published shelter data on their websites, had them readily available, or even kept such data, I was only able to obtain data from two municipalities—Clark County, Nevada, and Los Angeles County, California. I obtained dog intake, redemption, and euthanasia rates for both cities. Dog impoundment includes dogs who were rescued by animal control officers or who were confiscated from their guardians, dogs who were lost or stray and picked up by animal control officers or citizens, dogs whose guardians surrendered them, and dogs who had passed away on the street. Redemption is when dogs who entered the shelter are redeemed by their guardians.

Clark County, Nevada. Section 10.08.130 of Clark County's Municipal Code states that it is illegal for a person to harbor a dog or cat who is not spayed or neutered, with certain exceptions (Clark County, Nevada, Municipal Code, n.d.), in the unincorporated areas of Clark County (Clark County, Nevada, 2010d; Pope, November 12, 2008, para. 2). Please see Appendix B for the full text of the law, which went into effect on May 19, 2010 (Clark County, Nevada, 2010b). According to Joe Boteilho, Chief of Clark County's Code Enforcement, which oversees Clark County Animal Control, the mandatory spay/neuter ordinance is a secondary offense, i.e. animal control officers can only cite companion animal guardians for failing to spay or neuter if the officer is "investigating a complaint of a separate offense" or the "animal[is] roaming unleashed," but "officers [cannot] not randomly target [guardians] because there are not enough officers to check every home" (Pope, November 12, 2008, para. 22). I obtained dog

impoundment, guardian redemption, and euthanasia rates for fiscal years 1988-89 through 2010-11 from Clark County's government website (Clark County, Nevada, 2010c). I contacted the Lied Animal Shelter, an open-admission shelter that is run by The Animal Foundation (TAF), which Clark County Animal Control (CCAC) contracts with to house and care for all animals animal control officers pick up (Clark County, Nevada, 2010a), to obtain data for fiscal year 2011-12. A Lied Animal Shelter representative provided data for fiscal year 2011-12 (Rosanne (did not provide last name), personal communication, October 24, 2013). Please refer to Appendices D, E, and F for Clark County shelter data and graphs. An analysis of the Clark County data shows the following:

Dog intake/impoundment rate. Please refer to Appendix C while reading this section. Adjusting for population changes, the data show that in the first year (fiscal year 2010-11) after Clark County's mandatory spay/neuter law took effect on May 19, 2010, the rate of dog intake per 1,000 people decreased by 0.17 dogs per 1,000 people. But in the next year (fiscal year 2011-12), the rate of dog intake per 1,000 people increased by 0.43 dogs per 1,000 people. However, when adjusted for effects of the economic recession on dog relinquishment (measured by unemployment rates), in the first year (fiscal year 2010-11), the rate of dog intake per 1,000 people indexed by unemployment decreased by 0.34 dogs per 1,000 people indexed by unemployment. But in the next year (fiscal year 2011-12), the rate of dog intake per 1,000 people indexed by unemployment increased by 0.21 dogs per 1,000 people indexed by unemployment. The dog intake rate of 1.48 dogs per 1,000 people indexed by unemployment in the year (fiscal year 2010-11) after the mandatory spay/neuter law took effect is the lowest rate recorded in Clark County in the past 20 years, and the rate of 1.69 dogs per 1,000 people indexed by

unemployment the next year (fiscal year 2011-12) was the second lowest rate recorded in Clark County in the same time period/in the past 20 years.

Adjusted dog intake/impoundment rate. Please refer to Appendix D while reading this section. Adjusted dog impoundment is all dogs included in dog impoundment minus dogs whose guardians redeemed them. So if we are looking at the mandatory spay/neuter law's effectiveness at reducing the number of unwanted dogs that Clark County Animal Control and the Lied Animal Shelter must care for, adopt out, or euthanize, we should look at the adjusted dog intake rate because these are dogs are unwanted in that guardians did not want them, their guardians had passed away and made no arrangements for anyone to take care of them, or they never had a guardian in the first place. So, adjusting for population changes, the data show that in the first year (fiscal year 2010-11) after Clark County's mandatory spay/neuter law took effect on May 19, 2010, the rate of adjusted dog intake per 1,000 people decreased by 0.03 dogs per 1,000 people. But in the next year (fiscal year 2011-12), the rate of adjusted dog intake increased by 0.40 dogs per 1,000 people. However, when adjusted for effects of the economic recession on dog relinquishment (measured by unemployment rates), in the year (fiscal year 2010-11) after the mandatory spay/neuter law was enacted, the rate of adjusted dog intake per 1,000 people indexed by unemployment decreased by 0.44 dogs per 1,000 people indexed by unemployment. But in the next year (fiscal year 2011-12), the rate of adjusted dog intake per 1,000 people indexed by unemployment increased by 0.19 dogs per 1,000 people indexed by unemployment. Nevertheless, as was the case with the unadjusted dog intake rates in the above section, the adjusted dog intake rate of 1.21 dogs per 1,000 people indexed by unemployment in the year (fiscal year 2010-11) after the mandatory spay/neuter law took effect is the lowest rate recorded in Clark County in the past 20 years, and the adjusted dog intake rate of 1.40 dogs per 1,000

people indexed by unemployment in the next year (fiscal year 2011-12) was the second lowest rate recorded in Clark County in the past 20 years.

Euthanasia rate. Please refer to Appendix E while reading this section. If one wants a true measure of an mandatory spay/neuter law's effectiveness at reducing Clark County's truly unwanted dog population, i.e. dogs who are not adopted but are euthanized, one must look at euthanasia rates. Adjusting for population changes in looking at euthanasia rates, the data show that in the first year (fiscal year 2010-11) after Clark County's mandatory spay/neuter law went into effect, the euthanasia rate per 1,000 people increased by 0.23 dogs per 1,000 people, but it decreased by 0.15 dogs per 1,000 people in the next year (fiscal year 2011-12). However, when adjusted for effects of the economic recession on dog relinquishment (measured by unemployment rates), the euthanasia rate per 1,000 people indexed by unemployment decreased by 0.07 dogs in the two years (fiscal years 2010-11 and 2011-12) after the mandatory spay/neuter law went into effect. And last year (fiscal year 2011-12), the euthanasia rate of 0.73 dogs per 1,000 people indexed by unemployment was the lowest euthanasia rate recorded in Los Angeles County in the past 21 years.

Los Angeles County, California. Section 10.20.350 of Los Angeles County's Municipal Code states that it is illegal for a person to harbor a dog over four months old who is not spayed or neutered, unless that person has an unaltered dog license (Los Angeles County, California, Municipal Code, n.d.), which applies to the unincorporated areas of Los Angeles County (County of Los Angeles, Department of Animal Care and Control, 2013, para. 1). Please see Appendix F for the full text of the law, which went into effect in 2006 (records request, personal communication). I obtained dog impoundment, adoption, guardian redemption, and euthanasia rates for 1991 through fiscal year 2012-12 from the Los Angeles County's Department of

Animal and Control after mailing a Records Request letter. Please refer to Appendices G, H, and I for Los Angeles County shelter data and graphs. An analysis of the data shows the following:

Dog intake/impoundment rate. Please refer to Appendix G while reading this section. Adjusting for population changes, the data show that in the first year (fiscal year 2006-07) after Los Angeles County's mandatory spay/neuter law took effect in 2006, the rate of dog intake per 1,000 people decreased by 0.02 dogs per 1,000 people. Then in the next four years (fiscal years 2007-08, 2008-09, 2009-10, and 2010-11), the rate of dog intake per 1,000 people increased by 0.85 dogs per 1,000 people. But in the past two years (fiscal years 2011-12 and 2012-13), the rate of dog intake per 1,000 people decreased by 0.71 dogs per 1,000 people. However, when adjusted for effects of the economic recession on dog relinquishment (measured by unemployment rates), in the first two years (fiscal years 2006-07 and 2007-08) after the mandatory spay/neuter law took effect in 2006, the rate of dog intake per 1,000 people indexed by unemployment increased by 0.52 dogs. But in the next four years (fiscal years 2008-09, 2009-10, 2010-11, 2011-12), the rate of dog intake per 1,000 people indexed by unemployment decreased by 2.44 dogs per 1,000 people indexed by unemployment. The 1.95 rate of dog intake per 1,000 people indexed for unemployment two years ago (fiscal year 2011-12) was the lowest rate recorded in Los Angeles County in the past 21 years. However, in the past year (fiscal year 2012-13), the rate of dog intake per 1,000 people indexed by unemployment increased slightly by only 0.2 dogs per 1,000 people indexed by unemployment.

Adjusted dog intake/impoundment rate. Please refer to Appendix H while reading this section. As described above, the adjusted dog intake is the total dog intake minus the number of dogs whose guardians redeemed them. Adjusting for population changes, the data show that in the five years (fiscal years 2006-07, 2007-08, 2008-09, 2009-10, and 2010-11) after Los Angeles

County's mandatory spay/neuter law took effect in 2006, the rate of adjusted dog intake per 1,000 people decreased by 0.89 dogs per 1,000 people. But then in the next two years (fiscal years 2011-12 and 2012-13), the rate of adjusted dog intake decreased by 0.65 dogs per 1,000 people. However, when adjusted for effects of the economic recession on dog relinquishment (measured by unemployment rates), in the two years (fiscal years 2006-07 and 2007-08) after the mandatory spay/neuter law took effect in 2006, the rate of adjusted dog intake per 1,000 people indexed by unemployment increased by 0.54 dogs per 1,000 people indexed by unemployment. But in the next four years (fiscal years 2008-09, 2009-10, 2010-11, and 2011-12), the rate of adjusted dog intake per 1,000 people indexed by unemployment decreased by 2.09 dogs per 1,000 people indexed by unemployment, remaining at the same rate (1.74 dogs per 1,000 people indexed by unemployment) in fiscal year 2012-13, which is the lowest rate recorded in Los Angeles County in the past 21 years.

Euthanasia rate. Please refer to Appendix I while reading this section. As described above, euthanasia rates are a true measure of unwanted dogs. So when adjusting for population changes in looking at euthanasia rates, the data show that in the first year (fiscal year 2006-07) after Los Angeles County's mandatory spay/neuter law took effect in 2006, the rate of dog intake per 1,000 people decreased by 0.16 dogs per 1,000 people. Then in the next three years (fiscal years 2007-08, 2008-09, and 2009-10), the rate of dog intake per 1,000 people increased by 0.30 dogs per 1,000 people. But in the past three years (fiscal years 2010-11, 2011-12, and 2012-13), the rate has steadily decreased by 0.60 dogs per 1,000 people. The current euthanasia rate of 1.46 dogs per 1,000 people is the lowest the euthanasia rate, adjusting for population change, recorded in Los Angeles County in the past 21 years.

Discussion of data analysis. Los Angeles County has had seven years for the effects of its mandatory spay/neuter law to fully show, whereas, Clark County has had only three years. As with most laws, it is difficult to determine their true effects in the first few years after implementation. In the case of Clark County, I only had data for two years after its mandatory spay/neuter law was implemented. On the other hand, for Los Angeles County, whose mandatory spay/neuter law was implemented in 2006, I had data for seven years after, which is a fairly reasonable amount of time for the true effects of the law to be shown. I will discuss some possible reasons that dog intake and euthanasia numbers increased after implementation of the mandatory spay/neuter laws. First, it can take time for news of the new law to spread to all companion animal guardians in a locality and for people to actually get their animals spayed or neutered. It can also take time for enforcement of the new law to actually compel companion animal guardians to spay or neuter their animals. For example, depending on the specifics of the law, it can take two or three citations or fix-it tickets to compel a person to take action and spay or neuter their companion animal. So it may take a few years to see a decrease in a locality's unwanted dog population. In addition, enforcement of mandatory spay/neuter laws varies. As described above, Clark County's mandatory spay/neuter law is a "second offense" law, so animal control officers can only cite a companion animal guardian for violating the spay/neuter law if he or she is already under investigation for something else or is being cited for a separate offense (Pope, November 12, 2008, para. 22). If localities have not developed an enforcement plan or do not have the resources to enforce mandatory spay/neuter laws, the effects of the law may not be visible. But if animal control officers check on every companion animal guardian in the locality to make sure they are adhering to the mandatory spay/neuter law, more animals would be spayed/neutered, and you would see a decline in the unwanted dog population. Moreover, as

noted earlier, Frank (2004) argues that decreasing birth rates even by a small number can dramatically reduce overpopulation over the long term (Frank, 2004, p. 127). With this logic, in Clark County, whose mandatory spay/neuter law was enacted just three years ago, we are likely to see stronger numbers in the coming years. However, in Los Angeles County, in the seven years since it enacted its mandatory spay/neuter law, its euthanasia and dog intake rates, when adjusted for population change and unemployment, are the lowest they have been in the last 21 years.

I adjusted the shelter data for effects of the economic recession on dog relinquishment, which I measured with unemployment rates, because if people lose their jobs or homes, they may relinquish their dogs because they are unable to afford to care for them. But Hsin-Yi Weng and Lynette A. Hart (2012) analyzed the impact of the current economic recession on "dog and cat relinquishment, adoption, and euthanasia" at a shelter in Chicago (Weng & Hart, 2012, p. 80) and found that the recession had a minimal effect on animal relinquishment, except when it came to relinquishing senior dogs, which increased during the recession, with cost being "the primary reason for relinquishment" (Weng & Hart, 2012, p. 86, 87). They did find that the recession may have made people less likely to adopt animals, especially dogs (Weng & Hart, 2012, p. 88-89), which increases the number of animals in shelters, increasing the burden on animal control agencies and the euthanasia rate of animals (Weng & Hart, 2012, p. 89). But despite what Weng and Hart (2012) found in their study of Chicago, as noted above, if dog guardians lose their jobs or their homes due to the economic recession and are not longer able to afford to take care of their dogs, they will relinquish them to a shelter. At the November 7, 2013 Board of Supervisors hearing on San Francisco Animal Care & Control, Rebecca Katz noted a spike in guardiansurrendered dogs in fiscal year 2008-09, which she speculated was due to the economic recession, coupled with the lack of pet-friendly housing and the high cost of veterinary care and behavioral training in San Francisco (San Francisco Government Television, November 7, 2013). In addition, Karen Layne, President of the Las Vegas Valley Humane Society, a private non-profit shelter located in Clark County, also noted that foreclosures have increased the number of abandoned companion animals in Nevada (Pope, November 12 2008, para. 29), which may explain the increase in dog intake after the mandatory spay/neuter law was enacted.

A Mandatory Spay/Neuter Ordinance in San Francisco

In 2005, the City and County of San Francisco Commission of Animal Control and Welfare discussed the possibility of mandating spaying/neutering for all dogs in San Francisco, with certain exceptions (City & County of San Francisco Commission of Animal Control and Welfare, June 9, 2005, "8. New Business;" City & County of San Francisco Commission of Animal Control and Welfare, July 14, 2005, "8. New Business;" City & County of San Francisco Commission of Animal Control and Welfare, August 11, 2005, "7. Old Business"), in order to "address aggression and population issues" (City & County of San Francisco Commission of Animal Control and Welfare, July 14, 2005, "5. New Business"). Commissioners noted that the mandatory spay/neuter proposal faced opposition when it was discussed a few years prior, but they said, "there is no harm in instituting mandatory spay neuter for all dog [sic] as a way to keep the [dog] population down" (City & County of San Francisco Commission of Animal Control and Welfare, July 14, 2005, "5. New Business"). Commissioner Kipnis researched mandatory spay/neuter laws in other localities and found that their goals for such laws were "to reduce the overpopulation of homeless animals and to prevent future births of unwanted animals" (City & County of San Francisco Commission of Animal Control and Welfare, August 11, 2005, "5. Old Business, a. Explore legislation that would require spay/neuter surgery..."). She also found that

in those localities that have implemented mandatory spay/neuter laws, "euthanasia rates are down, [and] impounds were drastically reduced as well" (City & County of San Francisco Commission of Animal Control and Welfare, August 11, 2005, "5. Old Business, a. Explore legislation that would require spay/neuter surgery..."). Unfortunately, mandatory spay/neuter for all dogs was not discussed again after the August 11, 2005 meeting. And Kat Brown, Deputy Director of ACC, had said, "The political climate will not allow a mandatory spay neuter ordinance to pass" (City & County of San Francisco Commission of Animal Control and Welfare, August 11, 2005, "5. Old Business, a. Explore legislation that would require spay/neuter surgery..."). I contacted Animal Care & Control and asked for clarification about what specific aspect of the political climate would not allow a mandatory spay/neuter ordinance to pass, but I did not receive a response.

However, in 2006, San Francisco implemented a mandatory spay/neuter ordinance for all Pit Bulls over eight weeks old, with certain exceptions (City & County of San Francisco Health Code, n.d.). See Appendix J for the full text of the ordinance. According to Rebecca Katz, who, at the time, was Interim Director of San Francisco Animal Care & Control, between 2006 and 2009, 400 fewer pit bulls were euthanized (City & County of San Francisco Commission of Animal Control and Welfare, January 8, 2009, "6A Discussion only of no-kill policies," para. 6). Katz reported that in the two and a half years before the "Pit Bull Ordinance" took effect in 2006, Animal Care & Control euthanized 1,129 pit bulls compared with 760 in the two and a half years after the it took effect (City & County of San Francisco Commission of Animal Control and Welfare, January 8, 2009, "6A Discussion only of no-kill policies," para. 6). Los Angeles County had a similar law, but for both Pit Bulls and Rottweilers, and simply expanded application to all dog breeds through its current mandatory spay/neuter law (Fiala, May 1, 2006, paras. 2-3), which

was analyzed earlier. It is easier to expand a successful existing law than to create a brand-new law. And since San Francisco already requires that all Pit Bulls be spayed/neutered, the City can expand that requirement to all dog breeds.

The success of San Francisco's mandatory spay/neuter ordinance for Pit Bulls can be partly attributed to the SF SPCA Spay/Neuter Clinic, which offers free spay/neuter services for all Pit Bulls and Pit Bull mixes whose guardians live in San Francisco (San Francisco SPCA, 2013). In addition to the SF SPCA's free spay/neuter program for Pit Bulls, the Peninsula Humane Society offers free spay/neuter services in its "Go Nuts" mobile spay/neuter van twice a month at various San Francisco locations (City & County of San Francisco Department of Animal Care & Control, n.d.). These free spay/neuter services will help ensure that a mandatory spay/neuter law in San Francisco is successful because, as Animal Welfare Commissioner Sally Stephens stated, without free or low-cost spay/neuter services, mandatory spay/neuter laws will "result in more animals being impounded" (City & County of San Francisco Commission of Animal Control and Welfare, January 8, 2009, "6A Discussion only of no-kill policies," para.

18). Moreover, despite these free spay/neuter services, the number of unwanted dogs in San Francisco has increased, and therefore we need to make spaying/neutering mandatory for all dogs in San Francisco, with certain exceptions.

San Francisco should pass the following proposed mandatory spay/neuter ordinance:

Dogs who are six months or older must be spayed or neutered, with exceptions. Most municipalities that have mandatory spay/neuter laws require dogs to be spayed or neutered by the time they are six months old. Veterinarians Philip A. Bushby and Brenda Griffin (2011) recommend spaying/neutering dogs and cats before they sexually mature at 5 months of age (Bushby & Griffin, 2011, para. 3). And even the Veterinary Medical Association (AVMA)

supports spaying/neutering pediatric (8-16 week old) dogs and cats (Bushby & Griffin, 2011, para. 4). The benefits of spaying/neutering pediatric dogs and cats, according to Bushby and griffin, is that "[t]he surgical procedures are easier, faster, and less expensive than they are in adult animals," the surgery times and anesthetic episodes are shorter, "the incidence of perioperative complications is low," and the healing time and recovery from anesthesia is shorter than it is in adults (Bushby & Griffin, 2011, para. 5). Bushby and Griffin (2011) argue, "By spaying and neutering pets at 4 or 5 months of age, two or three weeks after standard vaccinations, practitioners can allow time for the animals to develop immunity through vaccination while ensuring that they are neutered before sexual maturity" (Bushby & Griffin, 2011, para. 45).

Mandatory spay/neuter exemptions. Exemptions should be granted for dogs who are too old or sick to undergo the spay/neuter surgery and dogs whose health would be threatened by the spay/neuter surgery. Guardians of all other dogs must purchase either an intact dog license or a dog breeding license if he or she does not want to spay/neuter his or her companion animal, and the fee for the breeding license should be higher than the fee for the intact dog license because people who do not spay/neuter their animals and allow them to breed, whether accidentally or on purpose, are contributing to the companion animal overpopulation problem, using more tax dollars and more time and resources of Animal Care & Control. As Sturla (1993) put it, they should "[s]pay or pay" (Sturla, 1993, p. 930).

Enforcement. As described above, all dogs in San Francisco would be required to be licensed with either a regular dog license, an intact dog license, or a breeding license. So if an animals is unaltered and does not have the proper license, the guardian will be considered not in compliance with the mandatory spay/neuter law (Zanowski, 2012, p. E30) and will be issued a

first warning to get their companion animal spayed or neutered within a certain period of time and to provide proof of the spay/neuter surgery within a certain period of time. Enforcement of these different types of licenses—regular "pet license," intake dog license, and breeding license—can be done by simply color-coding San Francisco's current dog licensing system. According to Sturla (1993), "A breeding ordinance can easily be incorporated into a licensing program by having a 2-color license-tag system. For example, all altered dogs and cats could have green tags, whereas unaltered animals would have red tags" (Sturla, 1993, p. 932). However, there should be two different colored tags for unaltered dogs—one for unaltered dog licenses and the other for breeding licenses. Since San Francisco already has a companion animal licensing system, this would be an easy conversion.

Breeding regulations. As stated above, people who breed their dogs must obtain a breeding license. According to Zanowski (2012), "Breeding licenses regulate by starting with a presumption that all dog or cat sales are illegal, unless the breeder has applies [sic] for a permit to sell his or her litters" (Zanowski, 2012, p. E27). Breeders must show proof that they have a breeding license by putting the license number on their advertisements or sales receipts, similar to contractors who put their contractor's license number on the side of their construction trucks (Zanowski, 2012, p. E27;), which "will help with enforcement of the law" (Sturla, 1993, p. 932). Breeders should also be restricted to one litter per year and the number of unaltered animals they are allowed to have should be limited, as well, so as to not further contribute to the companion animal overpopulation problem by bringing more dogs into a world where there are not enough homes for all of them.

Civil penalties. The mandatory spay/neuter law should have civil, rather than criminal, penalties. Zanowski (2012) argues that civil penalties are more viable than criminal penalties

because the risk of financial loss will encourage people to change their behavior to avoid financial loss, and breeders, whose goal is to make a profit, not lose money, will follow the law, obtaining the proper breeding license and "restrict[ing] their breeding practices," to avoid any financial loss (Zanowski, 2012, p. E29). In addition to the problems with the current criminal justice system (at topic far to extensive to discuss in this paper), violations of mandatory spay/neuter laws are not criminal acts. According to Zanowski (2012), failing to follow a mandatory spay/neuter law does not warrant "the significant social and economic implications" of a criminal sanction, and the purpose of mandatory spay/neuter laws is to reduce companion animal overpopulation and euthanasia rates, "not necessarily to label a lackadaisical pet owners as a criminal" (Zanowski, 2012, p. E29). Furthermore, criminal sanctions are not in the best interest of the animals, who may not have a place to go if their guardian is imprisoned or cannot find work or housing due to a criminal record (Zanowski, 2012, p. E29). Again, the purpose of the mandatory spay/neuter law is to reduce companion animal overpopulation and euthanasia rates, and imprisoning a companion animal guardian does neither.

Zanowski (2012) offers recommendations for civil sanctions: "Regardless of their form, civil sanctions (1) must be low enough that [dog guardians] will not relinquish their animals rather than pay an astronomical fee but high enough to discourage unwanted behavior, (2) should vary depending on the resources of the noncompliant party, and (3) should put the burden of proof of compliance on the [dog guardian]" (Zanowski, 2012, p. E29). There are two options for financial penalties. The first option is to fine the offender a certain amount of money per month until either the dog is spayed/neutered or the guardian obtains the appropriate license, which Zanowski (2012) says "eliminates additional actions—and resources used—to evaluate second and third offenses" (Zanowski, 2012, p. E29). The second option is to charge a "lump sum fine"

to offenders and to include higher sanctions for subsequent violations (Zanowski, 2012, p. E29). Because first offenses will likely occur because the guardian was not aware of the mandatory spay/neuter law, the "lump sum fine" for the first offense should be considerably lower than the second offense, in which the violator, who knows about the law, "deliberately break[s it]" (Zanowski, 2012, p. E29).

Conclusion

San Francisco has a serious problem—the City has too many unwanted dogs, and Animal Care & Control is having difficulties caring for all of them. Other municipalities, such as Clark County, Nevada, and Los Angeles County, California, have implemented mandatory spay/neuter laws to solve the same problem, and they worked. They now have the lowest dog intake and euthanasia rates in the last two decades, thanks to these laws. Because mandatory spay/neuter laws will decrease the companion animal overpopulation by essentially forcing most guardians to spay/neuter their animals, it will decrease the population of unwanted companion animals and thus decrease the euthanasia rate of unwanted companion animals. They will prevent dogs from being born into a world where there are not enough homes for them. San Francisco needs to implement a mandatory spay/neuter law.

Moving forward, I plan to obtain shelter data from the rest of the municipalities with mandatory spay/neuter laws to further analyze the law's effectiveness. After I receive the rest of the data, I plan to suggest to Supervisor Wiener that he introduce mandatory spay/neuter legislation similar to the one outlined in this Capstone and similar to San Francisco's current Pit Bull Ordinance, and I will use my data analysis and conclusion to convince him that San Francisco needs a mandatory spay/neuter law.

Appendix A U.S. Cities and Counties with Mandatory Spay/Neuter Laws

State	City/County	Code #	Code Description
CA	Beaumont (City)	Sec. 6.02.005 & 6.02.080	MSN for dogs and cats over 4 months
CA	Belmont (City)	Sec. 5-27.5	MSN for dogs and cats over 6 months
CA	Lake (County)	Sec. 4-17	MSN for dogs and cats over 4 months
CA	Laguna Woods (City)	Sec. 5.05.010	MSN for dogs and cats 6 months or older
CA	Los Angeles (City)	Sec. 53.15.2(b)(2)	MSN for dogs and cats over 4 months
CA	Los Angeles (County) (unincorporated areas)	Sec. 10.20.350 A	MSN for dogs over 4 months
CA	San Mateo (City)	Sec. 8.02.420	MSN for dogs and cats over 6 months
CA	Santa Cruz (County)	Sec. 6.10.030	MSN for dogs and cats over 6 months
CA	Santa Cruz (City)	Sec. 8.16.030	MSN for dogs and cats over 6 months
CA	Scotts Valley (City)	Sec. 6.10.030	MSN for dogs and cats over 6 months
CA	Watsonville (City)	Sec. 6-1.1001	MSN for dogs and cats over 6 months
CA	Capitola (City)	Sec. 6.16.030	MSN for dogs and cats over 6 months
CO	Aurora (City)	Sec. 14-42	MSN for dogs and cats over 6 months
СО	Denver (City & County)	Sec. 8-71	MSN for dogs and cats over 6 months
FL	Palm Beach (County)	Sec. 4-28	MSN for dogs and cats over 6 months
FL	Volusia (County) (unincorporated areas)	Sec. 14-58	MSN for dogs and cats over 6 months
FL	Daytona Beach (City)	Sec. 14-19	MSN for dogs and cats over 6 months
FL	New Smyrna Beach (City)	Sec. 18-334	MSN for dogs and cats over 10 months
IL	Rock Island (City)	Sec. 7-146	MSN for dogs and cats over 6 months
IN	Hamilton (County)	Sec. 15-2.1-1-23	MSN for dogs and cats 9 months or older
IN	Noblesville (City)	Sec. 90.18	MSN for dogs and cats over 6 months
IN	Fishers (City)	Sec. 91.17	MSN for dogs and cats over 9 months
LA	New Orleans (City)	Sec. 18-306	MSN for dogs over 6 months
NV	Clark (County) (unincorporated areas)	Sec. 10.08.130	MSN for dogs and cats
NV	Las Vegas (City)	Sec. 7.14.010	MSN for dogs and cats over 4 months
NV	North Las Vegas (City)	Sec. 6.16.010	MSN for dogs and cats
NJ	Camden (City)	Sec. 210-39	MSN for dogs and cats over 6 months
NC	Asheville (City)	Sec. 3-5	MSN for dogs and cats over 6 months
NC	Buncombe (County)	Sec. 6-63	MSN for dogs and cats over 6 months
OK	Tulsa (City)	Sec. 101	MSN for dogs and cats over 6 months
TX	Dallas (City)	Sec. 7-4.10	MSN for dogs and cats over 6 months
TX	Fort Worth (City)	Sec. 6-22.1	MSN for female dogs and cats over 6 months and for male dogs and cats over 8 months
WA	King (County)	Sec. 11.04.400	MSN for dogs and cats over 6 months

Appendix B Clark County, Nevada, Code of Ordinances Title 10 – Animals, Chapter 10.08 Dogs and Cat Licenses and Permits

Sections.

10.08.030 Reserved.

10.08.040 Premises inspection.

10.08.070 Tagging dog or cat or ferret—Tag misuse.

10.08.100 Vaccination register.

10.08.130 Permit to keep dogs and cats.

10.08.135 Breeder/show permit.

10.08.140 Sale of animals.

10.08.150 Breeder/show permit number must be displayed.

10.08.160 Pet dog or cat fancier permit.

10.08.170 Breeder/show permit compliance with Chapter 10.30.

10.08.180 Time for compliance.

10.08.030 Reserved.

Editor's note—

Ord. No. 3877, § 3, adopted June 15, 2010, repealed § 10.08.030 which pertained to vaccination certificate exemption permit and derived from Ord. No. 1023, § 3(part), 1987; and Ord. No. 1704, § 3, 1995.

10.08.040 Premises inspection.

Every person, firm or corporation, required to obtain any permit under the provisions of this chapter shall permit their premises to be inspected by the animal control officer at all reasonable times

(Ord. 1023 § 3 (part), 1987) (Ord. No. 3877, § 3, 6-15-2010)

10.08.070 Tagging dog or cat or ferret—Tag misuse.

- (a) The owner of any dog or cat or ferret shall safely and securely fasten about the neck of the dog or cat or ferret a collar with a tag attached thereto bearing the number of such vaccination and a current owner identification tag; or the owner shall have a microchip identification device implanted.
 - (b) It is unlawful for any person to remove any vaccination tag issued under the provisions of this title from any dog or cat or ferret not owned by him, or not lawfully in his possession or under his control or care, or for any person to place on any dog or cat or ferret or to permit any dog or cat or ferret in his control or possession, to wear any vaccination tag not issued or provided in this title for that particular dog or cat or ferret or to place on a dog or cat or ferret or to own, keep, or possess, any dog or cat or ferret wearing any counterfeit, imitation, or altered vaccination tag provided for in this title.

(Ord. 2088 § 16, 1998: Ord. 1704 § 6, 1995: Ord. 1107 § 9, 1988: Ord. 1023 § 3 (part), 1987) (Ord. No. 3877, § 3, 6-15-2010)

10.08.100 Vaccination register.

The county shall maintain an electronic register of all vaccinations issued, showing:

- (a) The name, current address, and telephone number, if any, of the vaccinated dog, cat or ferret;
- (b) Date of vaccination;
- (c) Date of expiration;
- (d) Description of the dog or cat or ferret;
- (e) The number of the tag; and
- (f) The type, lot, date and lot expiration of rabies vaccination.

(Ord. 2088 § 19, 1998: Ord. 1704 § 8, 1995: Ord. 1023 § 3 (part), 1987) (Ord. No. 3877, § 3, 6-15-2010)

10.08.130 Permit to keep dogs and cats.

- (a) No person shall keep more than three dogs over four months of age, nor more than three cats over four months of age, at any one place, or on any premises, or in any one residence located within the jurisdiction of the county. Subject to the exceptions provided in this chapter, no person shall harbor any cat or dog unless spayed or neutered. For purposes of this section and chapter, "harbor" means legal ownership, or the providing of regular care or shelter, protection, refuge or nourishment, or medical treatment; provided however that the term shall not include the providing of nourishment to a stray or feral cat or dog. This spay and neuter restriction shall not apply to dogs or cats kept pursuant to a breeder/show permit, or kept on the premises of a business for the sale, breeding, medical treatment or caring for hire of animals which is in compliance with all applicable permits, and other requirements of this code, or dogs and cats kept at an animal shelter or under the care and custody of the animal control officer or a rescue organization.
 - (b) This provision shall not apply to dogs in use by any federal, state, or local law enforcement agency or guide dogs specifically trained and used to guide a person who is blind or a person with a disability.
 - (c) The spay/neuter requirement set forth in Section 10.08.130(a) shall not apply if a licensed veterinarian certifies in writing that a specific dog or cat is temporarily or permanently medically unfit to undergo the required spay or neuter procedure because of a physical condition that would be substantially aggravated by such procedure or would likely cause the animal's death. If temporary, the certificate shall indicate the period of time anticipated that the unsuitability will last. For an exemption to apply beyond that period, a new certificate must be obtained from a veterinarian. The certification may be transmitted electronically.
 - (d) The spay/neuter requirement set forth in Section 10.08.130(a) shall not apply to animals harbored by a pound, shelter, humane society or similar organization, whether public or private, the principal purpose of which is securing the adoption of dogs or cats provided that such organization requires the spaying or neutering of all dogs and cats prior to placement of such animal for adoption by such organization.
 - (e) Kittens and puppies born to cats and dogs not spayed or neutered in violation of this chapter shall be forfeited and given to the care of a local shelter for adoption.

(Ord. 3318 § 1, 2005; Ord. 2088 § 22, 1998: Ord. 1107 § 12, 1988: Ord. 1023 § 3 (part), 1987) (Ord. No. 3771, § 1, 5-20-2009; Ord. No. 3840, § 1, 1-5-2010; Ord. No. 3877, § 3, 6-15-2010)

10.08.135 Breeder/show permit.

A person with a breeder/show permit is allowed to keep and maintain, in a clean, healthy, and

safe environment, not to exceed eight intact purebred or sterilized pet dogs, one year of age or older, or eight intact purebred or sterilized pet cats, eight months of age or older, provided that the person is registered with a nationally licensed registry for the purpose of showing at a licensed event where they can earn a championship title. With the exception of sterilized pets titled dogs or cats, each animal must be shown at least once a year, at a show recognized by a national association, such as the American Kennel Club, United Kennel Club, United Schutzhund Clubs of America, or the American Cat Fanciers Association, which requires a fee to participate and which awards certificates. Each animal must have a registered microchip identification device and be up-to-date on rabies vaccination. A dog breeder cannot breed a female dog until she is eighteen months old and shall only allow a female dog to have one litter per year and must provide a written sales contract to the purchaser. A breeder must pay an annual service charge of fifty dollars per permit for inspection of the premises by the animal control officer.

In the event that all intact dogs or cats on the property are under the age of one year the owner shall obtain a temporary show dog/show cat permit. The expiration date of a temporary permit shall be six months from the date of issue. No breeding or sale of animals is permitted on a temporary show permit.

(Ord. No. 3877, § 3, 6-15-2010; Ord. No. 3942, § 1, 3-15-2011)

10.08.140 Sale of animals.

No person shall sell or offer for sale a dog or cat without first obtaining a breeder/show permit. Dealers, operators and retailers must obtain a commercial sales permit and a business license and must designate all information required by the Nevada Revised Statutes, including where the animal has been purchased. The sale of animals at swap meets is prohibited.

(Ord. 3318 § 2, 2005) (Ord. No. 3877, § 3, 6-15-2010)

10.08.150 Breeder/show permit number must be displayed.

Any currently approved breeder/show permit holder shall not place an advertisement to sell or offer for sale a dog or cat without the current breeder/show permit number being displayed in all advertising and appearing on the receipt of the animal at the time of sale. (Ord. 3318 § 3, 2005)

(Ord. No. 3877, § 3, 6-15-2010)

10.08.160 Pet dog or cat fancier permit.

A pet dog or cat fancier permit allows a person to keep or possess on his property, at one location, safely confined in a completely enclosed building, residence or enclosed lot, more than three but not more than six spayed/neutered dogs or up to ten spayed or neutered cats older than eight months of age, as companion animals. Each animal must have a registered microchip identification device and be up-to-date on rabies vaccination. The owner must pay an annual service charge of fifty dollars for inspection of the premises by the animal control officer. (Ord. 3318 § 4, 2005; Ord. 2088 § 25, 1998: Ord. 1107 § 15, 1988) (Ord. No. 3877, § 3, 6-15-2010)

10.08.170 Breeder/show permit compliance with Chapter 10.30.

Any currently approved breeder/show permit holder selling or offering for sale a dog or cat must comply with the provisions set forth in Chapter 10.30 of this title. (Ord. 3318 § 5, 2005)

(Ord. No. 3877, § 3, 6-15-2010)

10.08.180 Time for compliance.

Persons harboring a dog or cat subject to the spay/neuter requirement of Section 10.08.130(a) have one hundred twenty days from the enactment of the ordinance codifying such requirement to comply therewith.

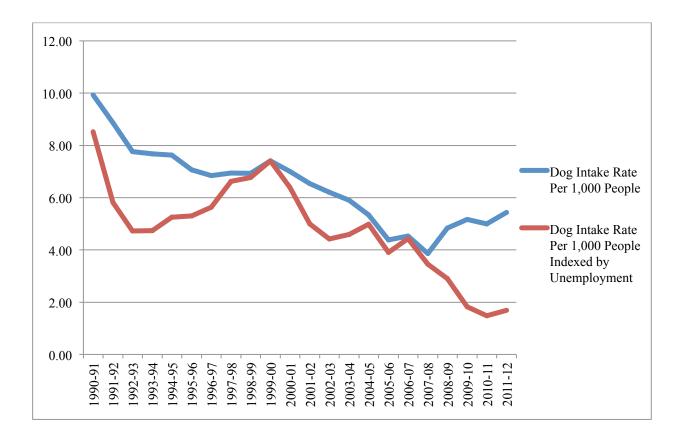
(Ord. No. 3840, § 2, 1-5-2010)

(Clark County, Nevada, Municipal Code, n.d.)

Appendix C
Dog Intake Rates at the Lied Animal Shelter, Clark County, Nevada

Year	Dog Intake Rate Per 1,000 People	Dog Intake Rate Per 1,000 People Indexed by Unemployment
1990-91	9.94	8.52
1991-92	8.86	5.81
1992-93	7.76	4.72
1993-94	7.68	4.74
1994-95	7.62	5.25
1995-96	7.06	5.30
1996-97	6.84	5.63
1997-98	6.94	6.63
1998-99	6.93	6.77
1999-00	7.41	7.41
2000-01	7.00	6.39
2001-02	6.54	5.00
2002-03	6.21	4.42
2003-04	5.91	4.59
2004-05	5.33	4.98
2005-06	4.38	3.91
2006-07	4.53	4.43
2007-08	3.86	3.45
2008-09	4.83	2.90
2009-10	5.17	1.82
2010-11	5.00	1.48
2011-12	5.43	1.69

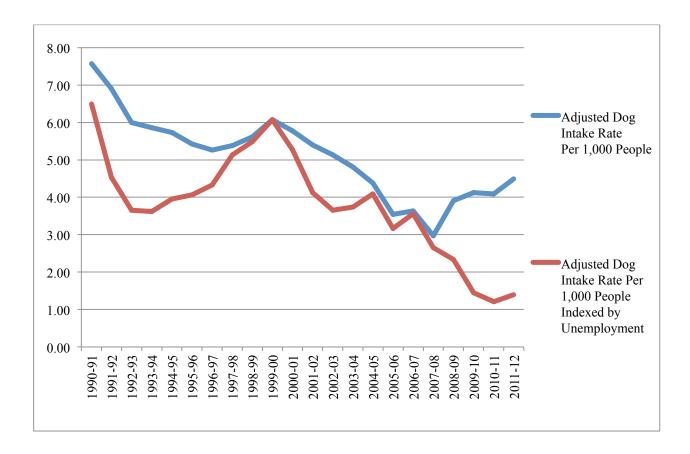
The mandatory spay/neuter law went into effect on May 19, 2010.



Appendix D
Adjusted Dog Intake Rates at the Lied Animal Shelter, Clark County, Nevada

Year	Adjusted Dog Intake Rate Per 1,000 People	Adjusted Dog Intake Rate Per 1,000 People Indexed by Unemployment
1990-91	7.57	6.49
1991-92	6.90	4.53
1992-93	6.00	3.65
1993-94	5.86	3.62
1994-95	5.73	3.95
1995-96	5.42	4.06
1996-97	5.26	4.33
1997-98	5.38	5.13
1998-99	5.61	5.48
1999-00	6.07	6.07
2000-01	5.77	5.27
2001-02	5.40	4.12
2002-03	5.13	3.65
2003-04	4.81	3.74
2004-05	4.38	4.09
2005-06	3.54	3.17
2006-07	3.64	3.56
2007-08	2.97	2.65
2008-09	3.91	2.34
2009-10	4.12	1.45
2010-11	4.09	1.21
2011-12	<mark>4.49</mark>	1.40

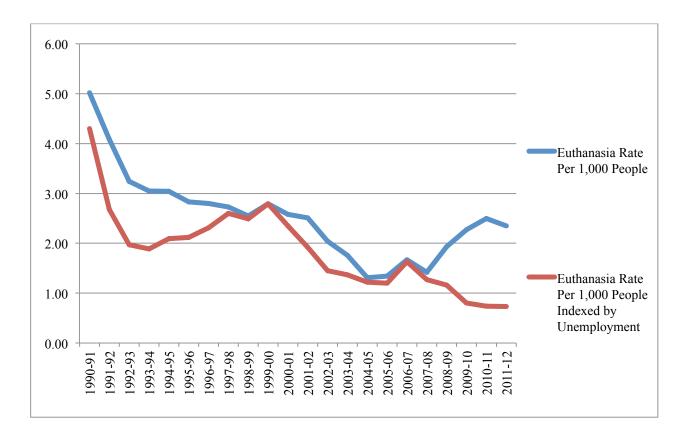
The mandatory spay/neuter law went into effect on May 19, 2010.



Appendix E Dog Euthanasia Rates at the Lied Animal Shelter, Clark County, Nevada

Year	Euthanasia Rate Per 1,000 People	Euthanasia Rate Per 1,000 People Indexed by Unemployment
1990-91	5.02	4.30
1991-92	4.08	2.68
1992-93	3.24	1.97
1993-94	3.05	1.89
1994-95	3.04	2.09
1995-96	2.83	2.12
1996-97	2.80	2.31
1997-98	2.73	2.60
1998-99	2.55	2.49
1999-00	2.79	2.79
2000-01	2.58	2.35
2001-02	2.51	1.92
2002-03	2.04	1.45
2003-04	1.76	1.37
2004-05	1.31	1.22
2005-06	1.34	1.20
2006-07	1.67	1.63
2007-08	1.42	1.27
2008-09	1.93	1.16
2009-10	2.27	0.80
2010-11	2.50	0.74
2011-12	2.35	0.73

The mandatory spay/neuter law went into effect on May 19, 2010.



Appendix F

Los Angeles County, California, Code of Ordinances Title 10 – Animals, Division 1 – Animal Control, Chapter 10.20 – Dogs and Cats*, Part 4 Mandatory Spay and Neuter Program for Dogs

Sections.

- 10.20.350 Mandatory spaying, neutering of dogs.
- 10.20.355 Unaltered dog license—Requirements.
- 10.20.360 Denial or revocation of unaltered dog license—Grounds and re-application.
- 10.20.365 Appeal of denial or revocation of unaltered dog license.
- 10.20.370 Transfer, sale and breeding of unaltered dog.
- 10.20.375 Penalties.
- 10.20.380 Impoundment of unaltered dog.
- 10.20.385 Allocation of fees and fines collected.

10.20.350 Mandatory spaying, neutering of dogs.

- A. No person may own, keep, or harbor a dog over the age of four months in violation of this section. An owner or custodian of an unaltered dog must have the dog spayed or neutered or obtain an unaltered dog license in accordance with Section 10.20.355
- B. The owner or custodian of a dog which is unable to be spayed or neutered without a high likelihood of suffering serious bodily harm or death due to age or infirmity, must obtain written confirmation of that fact from a licensed veterinarian. The writing must also state the date by which the dog may be safely spayed or neutered. If the dog is unable to be spayed or neutered within 30 days, the owner or custodian must apply for an unaltered dog license.

(Ord. 2006-0029 § 5 (part), 2006.)

10.20.355 Unaltered dog license—Requirements.

An owner or custodian of an unaltered dog over the age of four months must obtain an annual unaltered dog license for the dog. The license shall be issued if the department has determined that all of the following conditions are met:

- A. The dog is one of the following: a competition dog as defined in Section 10.08.095; a dog used by a law enforcement agency for law enforcement purposes; a qualified service or assistance dog as defined in Section 10.20.090; or a dog which is unable to be spayed or neutered as set forth in Section 10.20.350 B;
- B. The owner or custodian has submitted the required application and has paid the fee set forth in Section 10.90.010(VI)(A); and
- C. The unaltered dog will be maintained in accordance with the provisions of Los Angeles County Code Section 10.40.010, and with applicable state animal care and control laws.

(Ord. 2006-0029 § 5 (part), 2006.)

10.20.360 Denial or revocation of unaltered dog license—Grounds and re-application.

- A. The department may deny or revoke an unaltered dog license for one or more of the following reasons:
 - 1. The applicant or licensee is not in compliance with all of the requirements of Section

10.20.355

- 2. The department has received at least one complaint, verified by the complainant under penalty of perjury, that the applicant or licensee has allowed a dog to run loose or escape, or has otherwise been found to be neglectful of his or her dog or other animals;
- 3. The applicant or licensee has been previously cited for violating a state law, county code or other municipal provision relating to the care and control of animals;
- 4. The unaltered dog has been adjudicated by a court or an agency of appropriate jurisdiction to be a potentially dangerous or vicious dog, or to be a nuisance within the meaning of the Los Angeles County Code or under state law;
- 5. Any unaltered dog license held by the applicant has been revoked;
- 6. A female unaltered dog has had more than one litter per year, or five or more litters in her lifetime; or
- 7. The license application is discovered to contain a material misrepresentation of fact.
- B. Re-application for unaltered dog license:
 - 1. When an unaltered dog license is denied, the applicant may re-apply for a license upon a showing that the requirements of Section 10.20.355 have been met. The department shall refund one-half of the license fee when an application is denied. The applicant shall pay the full fee upon re-application.
 - 2. When an unaltered dog license is revoked, the owner or custodian of the dog may apply for a new license after a thirty-day waiting period upon a showing that the requirements of Section 10.20.355 have been met. No part of an unaltered dog license fee is refundable when a license is revoked and the applicant shall pay the full fee upon re-application.

(Ord. 2006-0029 § 5 (part), 2006.)

10.20.365 Appeal of denial or revocation of unaltered dog license.

- A. Request for hearing.
 - 1. Notice of intent to deny or revoke. The department shall mail to the owner or custodian a written notice of its intent to deny or revoke the license for an unaltered dog which includes the reason(s) for the denial or revocation. The owner or custodian may request a hearing to appeal the denial or revocation. The request must be made in writing within ten days after the notice of intent to deny or revoke is mailed. Failure to submit a timely written hearing request shall be deemed a waiver of the right to appeal the license denial or revocation.
 - 2. Hearing officer. The hearing shall be conducted by the director's designee.
 - 3. Notice and conduct of hearing. The department shall mail a written notice of the date, time, and place for the hearing not less than ten days before the hearing date. The hearing date shall be no more than thirty days after the department's receipt of the request for a hearing. Failure of the owner or custodian or his or her agent to appear at the hearing will result in forfeiture of the right to a hearing. The hearing will be informal and the rules of evidence will not be strictly observed. The department shall mail a written decision to the owner or custodian within ten days after the hearing. The decision of the hearing officer shall be the final administrative decision. Change in location of dog. If the dog is moved after the department has issued a letter of intent to deny or revoke, but has not yet denied or revoked the license, the owner or custodian must provide the department with information as to the dog's whereabouts,

including the current owner or custodian's name, address, and telephone number. (Ord. 2006-0029 § 5 (part), 2006.)

10.20.370 Transfer, sale and breeding of unaltered dog.

- A. Offer for sale or transfer of unaltered dog: An owner or custodian who offers any unaltered dog for sale, trade, or adoption must include a valid unaltered dog license number with the offer of sale, trade or adoption, or otherwise state and establish compliance with Section 10.20.350. The license and microchip numbers must appear on a document transferring the dog to the new owner.
- B. Transfer of unaltered dog: The owner or custodian of an unaltered dog over the age of four months, which is not a competition dog as defined in Section 10.08.095, must demonstrate compliance with Section 10.20.350 and 10.20.185 prior to the transfer, and must notify the department of the name and address of the transferee within ten days after the transfer.
- C. Notification of litter and sale or transfer of puppies: Within thirty days after a litter is born to a female dog, the owner or custodian of the female dog shall advise the department in writing of the number of live born puppies. When a puppy under the age of four months is sold or otherwise transferred to another person, the owner or custodian shall advise the department of the name and address of the new owner or custodian, and the microchip number of the puppy, if applicable, within ten days after the transfer.

(Ord. 2006-0029 § 5 (part), 2006.)

10.20.375 Penalties.

The penalties for violations of any provision of this part are as follows:

- A. First violation. A first violation shall be an infraction punishable by a fine not to exceed \$250. If the owner or custodian fails to correct the underlying cause of the violation within 30 days after being notified of the violation, it shall be deemed a second violation.
- B. Second violation. A violation within a year of a first violation shall be deemed a second violation. A second violation is a misdemeanor punishable by imprisonment in the county jail for a period not to exceed six months or by a fine not to exceed \$1,000, or by both such fine and imprisonment. Each subsequent violation within one year shall be considered an additional misdemeanor.

(Ord. 2006-0029 § 5 (part), 2006.)

10.20.380 Impoundment of unaltered dog.

- A. When an unaltered dog is impounded, the owner or custodian may reclaim the unaltered dog when one of the following occurs:
 - 1. The dog is spayed or neutered by a department veterinarian at the expense of the owner or custodian. Such expense may include additional fees due to extraordinary care required;
 - 2. The dog is spayed or neutered by another department approved veterinarian. The owner or custodian may arrange for another department approved veterinarian to spay or neuter the dog, and shall pay to the department the cost to deliver the dog to the chosen veterinarian. The cost to deliver the dog shall be based on the department's hourly rate established by the Auditor-Controller, billed in minimum one hour increments. The veterinarian shall complete and return to the department within ten days, a statement confirming that the dog has been spayed or neutered and

- shall release the dog to the owner or custodian only after the spay or neuter procedure is complete; or,
- 3. At the discretion of the director, the dog may be released to the owner or custodian if he or she signs a statement under penalty of perjury, representing that the dog will be spayed or neutered and that he or she will submit a statement within ten days, signed by the veterinarian, confirming that the dog has been spayed or neutered.
- 4. If the owner or custodian demonstrates compliance with Section 10.20.350
- B. Costs of Impoundment.
 - 1. The owner or custodian of the unaltered dog shall be responsible for the costs of impoundment, which shall include daily board costs.
 - 2. The costs of impoundment shall be a lien on the dog, and the unaltered dog shall not be returned to its owner or custodian until the costs are paid. If the owner or custodian of an impounded unaltered dog does not pay the lien against the dog in full within fourteen days, the dog shall be deemed abandoned to the department in accordance with Section 10.36.310

(Ord. 2006-0029 § 5 (part), 2006.)

10.20.385 Allocation of fees and fines collected.

All costs and fines collected under this part and the fees collected under Section 10.90.010 shall be paid to the department for the purpose of defraying the cost of the implementation and enforcement of this Part 4.

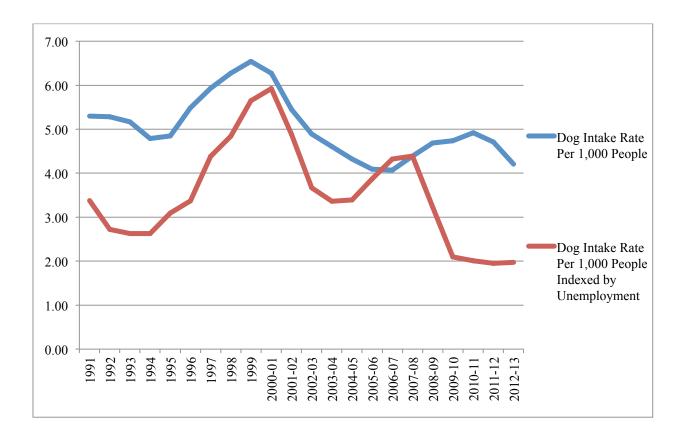
(Ord. 2009-0017 § 12, 2009: Ord. 2006-0029 § 5 (part), 2006.)

(Los Angeles County, California, Municipal Code, n.d.)

Appendix G
Dog Intake Rates at the Department of Animal Care and Control,
Los Angeles County, California

Year	Dog Intake Rate Per 1,000 People	Dog Intake Rate Per 1,000 People Indexed by Unemployment
1991	5.30	3.38
1992	5.28	2.72
1993	5.17	2.63
1994	4.79	2.63
1995	4.85	3.09
1996	5.49	3.37
1997	5.93	4.38
1998	6.27	4.84
1999	6.54	5.65
2000-01	6.27	5.92
2001-02	5.45	4.88
2002-03	4.89	3.67
2003-04	4.61	3.36
2004-05	4.32	3.39
2005-06	4.09	3.87
2006-07	4.07	4.32
2007-08	<mark>4.39</mark>	<mark>4.39</mark>
2008-09	<mark>4.69</mark>	3.23
2009-10	<mark>4.74</mark>	<mark>2.10</mark>
2010-11	<mark>4.92</mark>	<mark>2.01</mark>
2011-12	<mark>4.71</mark>	1.95
2012-13	<mark>4.21</mark>	<mark>1.97</mark>

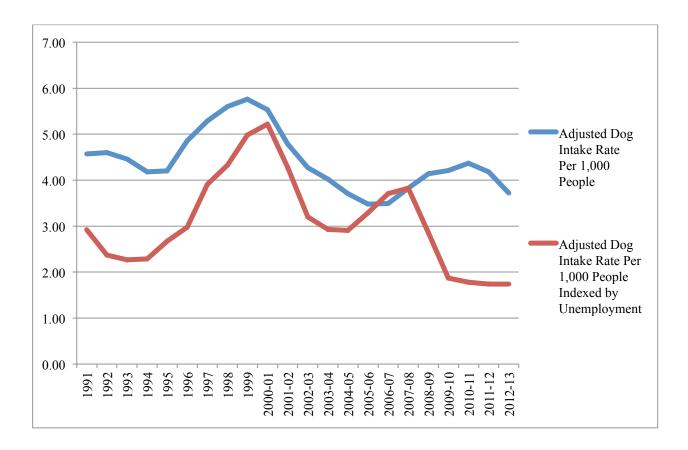
The mandatory spay/neuter law went into effect in 2006.



Appendix H
Adjusted Dog Intake Rates at the Department of Animal Care and Control,
Los Angeles County, California

Year	Adjusted Dog Intake Rate Per 1,000 People	Adjusted Dog Intake Rate Per 1,000 People Indexed by Unemployment
1991	4.57	2.92
1992	4.60	2.37
1993	4.46	2.27
1994	4.18	2.29
1995	4.20	2.67
1996	4.86	2.98
1997	5.29	3.91
1998	5.60	4.33
1999	5.76	4.98
2000-01	5.53	5.22
2001-02	4.79	4.28
2002-03	4.27	3.20
2003-04	4.02	2.93
2004-05	3.71	2.91
2005-06	3.48	3.29
2006-07	3.49	3.71
2007-08	3.83	3.83
2008-09	<mark>4.14</mark>	2.85
2009-10	<mark>4.21</mark>	1.87
2010-11	4.37	1.78
2011-12	<mark>4.18</mark>	1.74
2012-13	3.72	1.74

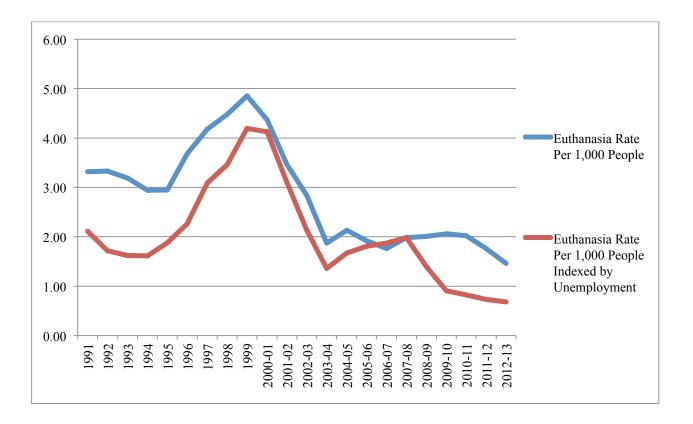
The mandatory spay/neuter law went into effect in 2006.



Appendix I Dog Euthanasia Rates at the Department of Animal Care and Control, Los Angeles County, California

Year	Euthanasia Rate Per 1,000 People	Euthanasia Rate Per 1,000 People Indexed by Unemployment
1991	3.32	2.11
1992	3.33	1.72
1993	3.19	1.62
1994	2.94	1.61
1995	2.95	1.88
1996	3.68	2.26
1997	4.18	3.09
1998	4.48	3.46
1999	4.85	4.19
2000-01	4.37	4.13
2001-02	3.46	3.10
2002-03	2.84	2.13
2003-04	1.87	1.36
2004-05	2.13	1.67
2005-06	1.92	1.81
2006-07	1.76	1.87
2007-08	1.98	1.98
2008-09	2.01	1.39
2009-10	2.06	0.91
2010-11	2.02	0.82
2011-12	1.76	0.73
2012-13	1.46	0.68

The mandatory spay/neuter law went into effect in 2006.



Appendix J

San Francisco Health Code, Article 1: Animals, Sections 43.1. Mandatory Spaying and Neutering of Pit Bulls; Exceptions. through 44.7. Operative Date

SEC. 43.1. MANDATORY SPAYING AND NEUTERING OF PIT BULLS; EXCEPTIONS.

No person may own, keep, or harbor any dog within the City and County of San Francisco that the person in possession knew, or should have known, was a pit bull that has not been spayed or neutered unless:

- (a) The pit bull is under eight weeks of age;
- (b) The pit bull cannot be spayed or neutered without a high likelihood of suffering serious bodily harm or death due to a physical abnormality. A veterinarian must certify such a condition, determine the time frame after which the pit bull can be spayed/neutered. Within 30 days of the operative date of this ordinance, or within 30 days of, taking possession or ownership of an unspayed or unneutered pit bull, the owner, guardian or keeper must submit such documentation to be verified by the Department;
- (c) The pit bull has been present in the City and County of San Francisco for less than thirty days;
- (d) The owner, guardian or keeper has obtained, or has submitted an application for a breeding permit in accordance with Section 44 et seq. of the San Francisco Health Code;
 - (e) Determination of breed is under appeal pursuant to Section 43(b) above; or
- (f) The pit bull is a show dog. Within 30 days of the operative date of this ordinance, or within 30 days of taking possession or ownership of an unspayed or unneutered pit bull, the owner, guardian or keeper must submit a copy of the organization papers (AKC or UKC) to the Department of Animal Care and Control demonstrating the pedigree information and show dog registration and that the dog conforms with the same breeding permit guidelines set forth in Sections 44.1(a)(3)(A), 44.1(a)(3)(B), 44.1(a)(3)(C) and 44.1(a)(3)(D). (Added by Ord. 268-05, File No. 051607, App. 11/22/2005)

SEC. 43.2. PENALTIES FOR FAILURE TO SPAY OR NEUTER PIT BULL.

Violation of Section 43.1 may result in the following penalties:

- (a) A first violation may result in the Department impounding the pit bull and disposing of the pit bull in accordance with Sections 41.7(a) and 41.9 of the San Francisco Health Code. A first violation shall be an infraction punishable by a fine not to exceed \$500. In order for the owner, guardian or keeper to reclaim the pit bull from the Department, in addition to paying the other charges and fees set out in Section 41.10, one of the following must occur:
- (1) The Department shall have a veterinarian spay or neuter the dog. The dog owner, guardian or keeper shall pay a deposit of \$100 prior to the procedure and will be charged the fee for such services consisting of the actual expense incurred as established by the Department. There may be additional fees for any extraordinary care provided.
- (2) In the alternative, the owner, guardian or keeper shall arrange for another veterinarian within the City and County of San Francisco to spay or neuter and shall pay the Department a fee of \$60, which shall cover the Department's costs of delivering the dog to a vet of the owner, guardian or keeper's choosing. The Department shall deliver the dog to the vet, and the vet shall release the dog to the owner, guardian or keeper only after the spaying or neutering is complete.
- (3) At the discretion of the Director, or his/her designee, the Director may release the dog to the owner, guardian or keeper provided that the owner, guardian or keeper signs an affidavit

that s/he will have the dog spayed or neutered within two weeks and will provide documentation verifying that the spaying or neutering occurred upon completion. If the owner, guardian or keeper fails to have his/her pit bull spayed or neutered as agreed in the affidavit, the Department shall have the authority to impound the dog, and the owner, guardian or keeper may be charged with a second violation under 43.2(b), below.

- (4) In the event that the Director or his/her designee determines that payment of any fees by the owner, guardian or keeper of a pit bull which is impounded or otherwise taken into custody would cause extreme financial difficulty to the owner, guardian or keeper, the Director or his/her designee may, at his/her discretion, waive all or part of the fees necessary for compliance with this section.
- (b) A second violation of this section by the owner, guardian or keeper, shall be a misdemeanor punishable by imprisonment in the County Jail for a period not to exceed six months or by a fine not to exceed \$1,000, or by both such fine and imprisonment. In addition, a second violation may result in the Department impounding the pit bull and disposing of the pit bull in accordance with Sections 41.7(a) and 41.9 of the San Francisco Health Code. Further, the provisions of Section 43.2(a)(1) above may apply. (Added by Ord. 268-05, File No. 051607, App. 11/22/2005)

SEC. 43.3. ALLOCATION OF FEES AND FINES COLLECTED.

All fees and the City's share of all fines collected under Section 43.2 shall be used only by the Animal Care and Control Department to fund the implementation and enforcement of the pit bull spaying/neutering program.

(Added by Ord. 268-05, File No. 051607, App. 11/22/2005)

SEC. 43.4. OPERATIVE DATE.

Notwithstanding the provisions of Section 43.1. the provisions of this Section mandating the spaying and neutering of pit bulls shall not be operative until the first date that California Health and Safety Code Section 122331 is in full force and effect or upon the effective date of this ordinance, whichever is later.

(Added by Ord. 268-05, File No. 051607, App. 11/22/2005)

SEC. 44. REQUIRING A PERMIT FOR THE BREEDING AND TRANSFERRING OF PIT BULL PUPPIES.

- (a) No person shall cause or allow any pit bull, as defined in Section 43(a) of the San Francisco Health Code, that is owned, harbored or kept within the City and County of San Francisco to breed or give birth without first obtaining a permit as described in this Article.
- (b) Keeping an unaltered male adult dog together with a female dog in heat in the same dog run, pen, room, or any other space where the two dogs are allowed contact with one another that would allow the dogs to breed is considered prima facie evidence of an owner, guardian or keeper's intent to allow the dogs to breed.

(Added by Ord. 268-05, File No. 051607, App. 11/22/2005)

SEC. 44.1. GRANTING OR DENYING A PERMIT.

(a) **Requirements of permit.** An owner or keeper of a pit bull may obtain a nontransferable permit that lasts for one year. If more than one owner, guardian, or keeper is involved in the breeding process, each party must apply for and be granted a breeding permit. The permit may be obtained from the San Francisco Department of Animal Care and Control

("Department") if all of the following conditions are met:

- (1) The applicant has submitted the appropriate forms and fees required by the Department in order to seek consideration for a breeding permit.
- (2) The applicant has a space in which to breed pit bulls and raise the puppies that the Department is satisfied will contain the animals as well as provide them with safe, sanitary, and humane conditions, appropriate for breeding pit bulls, which satisfies all applicable provisions of Article 1 of the San Francisco Health Code and all applicable State animal welfare laws.
- (3) The Department has evaluated and reached a positive conclusion regarding the suitability of the particular pit bulls to be bred, including consideration of their lineage, age and health condition. The Department shall utilize the following guidelines in making a determination:
- (A) Owners, guardians or keepers shall provide verification that any pit bull to be bred is registered as an American Pit Bull Terrier, an American Staffordshire Terrier, or a Staffordshire Bull Terrier, with the appropriate registry for its breed (American Kennel Club, United Kennel Club, American Dog Breeders Association ("ADBA")) or any other valid registry as determined by the Department.
- (B) Any pit bull to be bred must meet the pit bull breed standard, as defined by the appropriate registration agency (AK, UKC, or ADBA), for physical conformation as well as temperament.
- (C) The registered pit bull has participated in at least one approved dog show during the previous 365 day period or the owner, guardian or keeper has given written notice to one of the dog registries listed above stating his/her intention that the dog will participate in an approved dog show. A dog show is defined as an event that is sanctioned in writing by one or more of the dog registries listed above.
- (D) Any pit bull to be bred shall have the appropriate health screenings for its breed. For pit bulls this is, at a minimum, the following health tests: Orthopedic Foundation for Animals ("OFA") or University of Pennsylvania Hip Improvement Program ("PennHIP") certification on hips, OFA on heart by a certified cardiologist and must have passed the American Temperament Testing Society temperament test.
 - (4) Breeders shall not allow female pit bulls to have more than 1 litter per year.
 - (5) Upon approval of his/her application, the applicant must pay the \$100 permit fee.
- (b) **Permit denial.** The Department shall automatically deny the permit if one or more of the following occurs, and that decision shall be final:
- (1) The applicant fails to pay the permit fee within two weeks of notification that the application has been approved. Applicant may reapply for a permit after ten months.
- (2) The applicant has a history of allowing dogs to run loose or escape, or has otherwise been found to be neglectful; has had his/her dog identified as a nuisance; or has previously been determined to have violated Section 41.12 of the San Francisco Health Code.
 - (3) The applicant has violated any provisions of Health Code Sections 42 through 44.5.
 - (4) The applicant has applied for a permit within the last ten months.
- (c) **Inspections of the premises.** The Department may on one or more occasions, up to a year after issuing the permit, perform an inspection of the dog's living quarters to ensure that the standards required to receive a permit are met. The Department will give the owner, guardian or keeper a twenty-four hour notice and will conduct such inspection at a reasonable time when the owner, guardian or keeper, or his/her representative, is present. The owner, guardian or keeper shall allow the Department access to conduct the inspection.

If the property does not meet the required standards, or the owner, guardian or keeper cannot be contacted for an inspection within two weeks of the Department's initial attempt, or the owner, guardian or keeper fails or refuses to allow an inspection, the Department shall not issue a permit.

(Added by Ord. 268-05, File No. 051607, App. 11/22/2005)

SEC. 44.2. RELOCATION OF PERMIT.

- (a) The Department may, after conducting a hearing, revoke a breeding permit for violations of the provisions of Sections 42 through 44.5 of the San Francisco Health Code. Within five days of the Department's knowledge of any such violations, a hearing officer, who is any designated representative of the Department of Animal Care and Control or the San Francisco Police Department, shall notice the owner, guardian or keeper of the pit bull in writing that s/he is in violation and subject to penalties under this ordinance, including revocation of his/her breeding permit. Unless the hearing is waived by the owner, guardian, or keeper of the dog, or the hearing is scheduled on an agreed-upon date, the hearing officer shall fix a time not less than ten or more than 30 days from the date of the violation notice. The hearing officer shall fix a place for said hearing and cause all parties to be notified, not less than five days before the date of such hearing. The hearing may be informal and the rules of evidence not strictly observed. Within fifteen days following the hearing, the hearing officer shall issue his/her decision to all parties. The decision of the hearing officer is final. Upon a finding of a violation, the hearing officer may impose appropriate remedies on the owner, guardian, or keeper. Any violation(s) may also be considered in future permitting decisions.
- (b) After the Department has issued a permit, it may revoke the permit pursuant to procedures set forth in Section 44.2(a) if a subsequent inspection of the premises under Section 44.1(c) reveals the area to be below the standards required for the permit, or if the owner, guardian or keeper cannot be contacted for an inspection within two weeks of the Department's initial attempt, or if the owner, guardian or keeper refuses the Department access for an inspection. If the dog is already pregnant or the puppies are born, the Department may, pending a hearing, impound the pit bull and/or its puppies in accordance with Section 41.7(a) of the San Francisco Health Code. After a hearing, the Department may fine the owner, guardian or keeper an amount not to exceed \$500, permanently confiscate the puppies and dispose of them in accordance with Section 41.9 of the San Francisco Health Code, and consider the violation in future permitting decisions.

(Added by Ord. 268-05, File No. 051607, App. 11/22/2005)

SEC. 44.3. TRANSFERENCE AND SALE OF PIT BULL PUPPIES.

- (a) Any owner, guardian or keeper residing in or conducting a transaction within the City and County of San Francisco who offers any pit bull puppies under six months old for sale, trade, or adoption, must prominently post his/her valid breeding permit number with any offer of sale, trade, or adoption. The permit number must also be supplied in writing to the individual, firm, corporation, or other entity that acquires a puppy.
- (b) The breeder shall not remove puppies from the litter until the puppies are at least 8 weeks of age, are fully weaned, have their first set of vaccinations, have been be de-wormed and are in good general health.
- (c) Breeders and any party that acquires a pit bull puppy through purchase, trade or adoption shall enter into a written agreement for the transaction and must include language that the acquiring party shall, at any time during the dog's life, return the puppy to the breeder if the

acquiring party cannot keep it, and that the breeder shall accept any such returned dog.

- (d) Pit bull puppies that do not have show dog papers as defined in Section 43.1(f) must be spayed or neutered by the breeder prior to transfer.
- (e) Within three weeks of the time that the litter is whelped, the breeder shall send to the Department a head count of how many puppies were live born. Within three weeks after the breeder transfers physical possession of each puppy, the breeder shall notify the Department of the name, address, and telephone number of the new owner, guardian or keeper of each puppy. (Added by Ord. 268-05, File No. 051607, App. 11/22/2005)

SEC. 44.4. FINES FOR FAILURE TO COMPLY WITH PERMIT REQUIREMENTS.

- (a) A violation of the breeding permit provisions at Section 44 shall be an infraction punishable by a fine not to exceed \$500. Such violations must be corrected within 30 days.
- (b) After 30 days of a first citation, if the owner, guardian or keeper fails to correct a violation of Section 44, it shall be an additional violation and shall be punishable as a misdemeanor. Subsequent violations will be considered part of a continuous sequence of offenses and each violation after 30 days of a prior conviction will be punishable as a misdemeanor. The punishment shall be imprisonment in the County Jail for a period not to exceed six months or by a fine not exceeding \$1,000, or by both such fine and imprisonment.
- (c) Failure to include a prominently posted permit number when transferring pit bull puppies under Section 44.3(a) shall be an infraction punishable by a \$100 fine for the first violation, a \$200 fine upon a second violation within a year of the first offense, and a \$500 fine upon the third and subsequent violations within a year of the second offense.
- (d) Failure to provide the Department with the number of puppies born and information about a new owner, guardian or keeper of each puppy in accordance with Section 44.3(e) shall be an infraction punishable by a \$100 fine for the first violation, a \$200 fine upon a second violation within one year of the first offense, and fine of \$500 for the third and subsequent violations within one year of the second offense. Failure to provide the Department with the new owner, guardian or keeper's information for each puppy, will be considered a separate and individual violation.

(Added by Ord. 268-05, File No. 051607, App. 11/22/2005)

SEC. 44.5. ALLOCATION OF FEES AND FINES COLLECTED.

All fees and the City's share of all fines collected under Section 44.4 shall be used only by the Animal Care and Control Department to fund the implementation and enforcement of the pit bull breeding permit program.

(Added by Ord. 268-05, File No. 051607, App. 11/22/2005)

SEC. 44.6. EXCEPTIONS TO PERMIT POSTING REQUIREMENTS.

The Department of Animal Care and Control or a valid 501(0)(3) animal welfare and rescue organization that seeks adoptive homes for pit bulls may transfer ownership and place ads without displaying or supplying a permit number as described in Section 44.3(a). (Added by Ord. 268-05, File No. 051607, App. 11/22/2005)

SEC. 44.7. OPERATIVE DATE.

Notwithstanding the provisions of Sections 44 through 44.3, the provisions of this Section requiring a permit for the breeding and transfer of pit bull puppies shall not be operative until January the first date that California Health and Safety Code Section 122331 is in full force and

effect or upon the effective date of this ordinance, whichever is later. (Added by Ord. 268-05, File No. 051607, App. 11/22/2005)

(City & County of San Francisco Health Code, n.d.).

REFERENCES

- American Society for the Prevention of Cruelty to Animals. (2012). *Top 10 Reasons to Spay or**Neuter Your Pet. Retrieved from http://www.aspca.org/pet-care/

 spayneuter/spay-neuter-top-ten.aspx
- American Society for the Prevention of Cruelty to Animals. (2013). *Top 10 Reasons to Spay or**Neuter Your Pet. Retrieved from http://www.aspca.org/pet-care/top-10-reasons-spay-orneuter-your-pet
- American Veterinary Medical Association Executive Board. (2009). *Dog and Cat Population Control*. Retrieved from https://www.avma.org/KB/Policies/
 Pages/Dog-And-Cat-Population-Control.aspx
- American Veterinary Medical Association. (2013). Why you should spay or neuter your pet.

 Retrieved from https://www.avma.org/public/PetCare/Pages/spay-neuter.aspx
- Barker, B., Brosnan, K., Fox, J., Richie, L., Mitchell, J. V., Beers, G. G., Eisen, R., Keaton, D.,
 & Stein, B. (2007, November 21). Letter of Support for the California Healthy Pets Act.
 Retrieved from http://www.cahealthypets.com/pdf/AB1634-CLetter.pdf
- Bryant, T. L. (2008). Sacrificing the Sacrifice of Animals: Legal Personhood for Animals, the Status of Animals as Property, and the Presumed Primacy of Humans. *Rutgers Law Journal*, *39*(2), 247-330.
- Bushby, P. A., & Griffin, B. (2011). An overview of pediatric spay and neuter benefits and techniques. *Veterinary Medicine*, *106*(2), 83-86, 88-89. Retrieved from http://veterinarymedicine.dvm360.com/vetmed/article/articleDetail.jsp?id=709366
- California Healthy Pets Act of 2007, CA-AB 1634, California Legislature 2007-2008 Regular Session.

- Centers for Disease Control and Prevention. (2009). *Dog Bite Prevention*. Retrieved from http://www.cdc.gov/homeandrecreationalsafety/dog-bites/biteprevention.html
- Centers for Disease Control and Prevention. (2013, September 23). *Dog Bites*. Retrieved from http://www.cdc.gov/HomeandRecreationalSafety/Dog-Bites/index.html
- City & County of San Francisco Board of Supervisors. (2013, September 10). *Full Board Meeting*. [video] Retrieved from http://sanfrancisco.granicus.com/ViewPublisher.php?view_id=10
- City & County of San Francisco Commission of Animal Control and Welfare. (2005, June 9).

 *Meeting Agenda. Retrieved from http://sfgov2.org/archive.aspx?dept=387&sub=&year=2005&dtype=548&file=32389
- City & County of San Francisco Commission of Animal Control and Welfare. (2005, July 14).

 *Meeting Agenda. Retrieved from http://sfgov2.org/archive.aspx?dept=387&sub=&year=2005&dtype=548&file=32992
- City & County of San Francisco Commission of Animal Control and Welfare. (2005, July 14).

 Meeting Minutes. Retrieved from
 http://sfgov2.org/archive.aspx?dept=387&sub=&year=2005&dtype=544&file=33614
- City & County of San Francisco Commission of Animal Control and Welfare. (2005, August 11).

 Meeting Minutes. Retrieved from
 http://sfgov2.org/archive.aspx?dept=387&sub=&year=2005&dtype=544&file=34040
- City & County of San Francisco Commission of Animal Control and Welfare. (2009, January 8).

 Meeting Minutes. Retrieved from http://sfgov2.org/archive.aspx?dept=387&sub=&year =2009&dtype=544&file=98410

- City & County of San Francisco Commission of Animal Control and Welfare. (2009, August 13).

 Meeting Minutes. Retrieved from

 http://sfgov2.org/archive.aspx?dept=387&sub=&year=2009&dtype=544&file=110664
- City & County of San Francisco Department of Animal Care & Control. (1994, April 1).

 **Agreement Between SFSPCA and ACC. Retrieved from http://www.sfgov2.org/index.aspx?page=1082
- City & County of San Francisco Department of Animal Care & Control. (2013a). *Shelter Services*. Retrieved from http://sfgov2.org/index.aspx?page=1348
- City & County of San Francisco Department of Animal Care & Control. (2013b). *Field Services*.

 Retrieved from http://sfgov2.org/index.aspx?page=1347
- City & County of San Francisco Department of Animal Care & Control. (2013c). *Why Spay and Neuter?* Retrieved from http://sfgov2.org/index.aspx?page=1338
- City & County of San Francisco Department of Animal Care & Control. (2013d). *ACC Shelter Stats*. Retrieved from http://www.sfgov2.org/index.aspx?page=2208
- City & County of San Francisco Department of Animal Care & Control. (n.d.). Free Pet "Fixes"

 For Needy Pet Owners of San Francisco. Retrieved from

 http://www.sfgov2.org/ftp/uploadedfiles/acc/Documents/San%20Francisco%20Flyer.pdf
- City & County of San Francisco Health Code. (n.d.). Sections 43.1. Mandatory Spaying and

 Neutering of Pit Bulls; Exceptions through 44.7. Operative Date. Retrieved from

 http://www.amlegal.com/nxt/gateway.dll/California/health/healthcode?f=templates\$fn=d

 efault.htm\$3.0\$vid=amlegal:sanfrancisco_ca\$sync=1
- Clark County, Nevada. (2010a). *Animal Control: About Us*. Retrieved from http://www.clarkcountynv.gov/depts/admin_services/animalcontrol/Pages/About.aspx

- Clark County, Nevada. (2010b). *Animal Control: FAQ*. Retrieved from http://www.clarkcountynv.gov/depts/admin_services/animalcontrol/Pages/faq.aspx#Pet% 20Sterilization
- Clark County, Nevada. (2010c). *Dog Outcome Statistics*. Retrieved from http://www.clarkcountynv.gov/Depts/admin_services/animalcontrol/Pages/DogOutcomes .aspx
- Clark County, Nevada. (2010d). Low Cost No Cost Animal Spay Neuter. Retrieved from http://www.clarkcountynv.gov/Depts/admin_services/animalcontrol/Pages/SpayNeuter.as px
- Clark County, Nevada, Municipal Code. (n.d.). Chapter 10.08 Dog and Cat Licenses and

 Permits. Retrieved from

 http://library.municode.com/index.aspx?clientId=16214&stateId=28&stateName=Nevada
- Coleman, P., Veleanu, H., & Wolkov, S. K. (2011). It's Raining Cats and Dogs... Government Lawyers Take Note: Differential Licensing Laws Generate Revenue, Reduce Costs, Protect Citizens, and Save Lives. *Stetson Law Review*, 40(2), 393-434.
- County of Los Angeles, Department of Animal Care and Control. (March 13, 2013). *Attention Dog Owners of Los Angeles County: Spay/Neuter Discount Voucher*. Retrieved from http://file.lacounty.gov/dacc/cms1_051439.pdf
- Fiala, J. (2006, May 1). L.A. County proposes mandatory sterilization. *DVM360 Magazine*.

 Retrieved from http://veterinarynews.dvm360.com/dvm/Veterinary+news/LA-County-proposes-mandatory-sterilization/ArticleStandard/Article/detail/325560
- Fiala, J. (2007, April). Spay or pay: Unprecedented mandate for pet sterilization breeds public debate, divides California DVMs. *DVM Newsmagazine*, 38(4), 1, 71-72.

- Fournier, A. K., & Geller, E. S. (2004). Behavior Analysis of Companion-Animal Overpopulation: A Conceptualization of the Problem and Suggestions for Intervention. *Behavior & Social Issues*, *13*(1), 51-68.
- Frank, J. (2004). An Interactive Model of Human and Companion Animal Dynamics: The Ecology and Economics of Dog Overpopulation and the Human Costs of Addressing the Problem. *Human Ecology: An Interdisciplinary Journal*, 32(1), 107-130.
- Frank, J. M., & Carlisle-Frank, P. L. (2007). Analysis of programs to reduce overpopulation of companion animals: Do adoption and low-cost spay/neuter programs merely cause substitution of sources? *Ecological Economics*, 62(3-4), 740-746. doi:10.1016/j.ecolecon.2006.09.011
- San Francisco Animal Care & Control. (n.d.). Free Pet "Fixes" for Needy Pet Owners of San Francisco. Retrieved from http://sfgov2.org/ftp/uploadedfiles/acc/Documents/San%20Francisco%20Flyer.pdf
- Gershman, K. A., Sacks, J. J., and Wright, J. C. (1994). Which dogs bite? A case-control study of risk factors. *Pediatrics*. 93(6 Pt 1), 913-917.
- Holzer, H. M. (2008). The Policy, Law and Morality of Mandatory Spay/Neuter. *International Society for Animal Rights*. Retrieved from http://www.isaronline.org/f/Mandatory_Spay_Neuter_Monograph1.pdf
- Humane Society of the United States. (2009). *HSUS Pet Overpopulation Estimates*. Retrieved from http://www.humanesociety.org/issues/
 pet overpopulation/facts/overpopulation estimates.html
- Irwin, P. G. (2001). Overview: The State of Animals in 2001. In D. J. Salem & A. N. Rowan (Eds.), *The State of the Animals 2001* (pp. 1-19). Washington, DC: Humane Society Press.

- KTVU. (2013, September 12). San Francisco's animal control in dire financial straits. Retrieved from http://www.ktvu.com/news/news/local/san-franciscos-animal-control-dire-financial-strai/nZtWP/
- Los Angeles County, California, Municipal Code. (n.d.). *Chapter 10 Dogs and Cats, Part 4 Mandatory Spay and Neuter Program for Dogs.* Retrieved from

 http://library.municode.com/index.aspx?clientId=16274
- Lang, D. (2012). Solving the Pet Overpopulation Problem. (Unpublished white paper).

 University of San Francisco, San Francisco, California.
- Lawrie, M., Gaal, M., Withers, A. M., Widdison, I., & Awad, M. (1996). The issue of unwanted animals: Adopting a strategic and practical approach. *AVA Ltd.*, 87-93 Retrieved from http://www.ccac.net.au/files/The issue of unwanted animals UAM06Lawrie.pdf
- Los Angeles Animal Services Department. (n.d.) *Spay/Neuter makes "Cents" and It's the Law*.

 Retrieved November 30, 2012 from http://www.laanimalservices.com/About_Animals/

 Spay_Neuter.htm
- Manning, A. M., & Rowan, A. N. (1992). Companion animal demographics and sterilization status results from a survey in four Massachusetts towns. *Anthrozoos* (USA), 5(3), 192-201.
- McNeil, J. & Constandy, E. (2006). Addressing the Problem of Pet Overpopulation: The Experience of New Hanover County Animal Control Services. *Journal of Public Health Management & Practice*, *12*(5), 452-455. Retrieved from http://www.maph.unc.edu/jphmp/PHH12_5_08_452-455.pdf

- Moulton, C., Wright, P, & Rindy, K. (1991). The Role of Animal Shelters in Controlling Pet Overpopulation. *Journal of the American Veterinary Medical Association (JAVMA)*, 198(7), 1172-1176.
- North Carolina Responsible Animal Owners Alliance. (n.d.a). Failure of Mandatory Spay/Neuter and Breeder Licensing Laws. Retrieved November 29, 2012 from http://www.ncraoa.com/PDF/alerts/FailureOfMSN rev01.09.pdf
- NPR. (2007, June 11). *California Bill Would Require Neutered Pets*. Retrieved from http://www.npr.org/templates/story/story.php?storyId=10947992
- Pope, J. (2008, November 12). Groups oppose pet ordinance requiring sterilization at 3 months.

 *Las Vegas Sun.** Retrieved from http://www.lasvegassun.com/news/2008/nov/12/groups-oppose-pet-ordinance-requiring-sterilizatio/
- People for the Ethical Treatment of Animals. (n.d.). *Spay and Neuter*. Retrieved November 30, 2012 from http://www.peta.org/issues/Companion-Animals/spay-neuter.aspx
- San Francisco Board of Supervisors, Supervisor Scott Wiener. (2013, September 10). Supervisor

 Wiener to Call for Hearing on Animal Care & Control Staffing and Budgetary Needs;

 Budget shortages affect agency's enforcement capacity and ability to care for animals in shelters [Press release].
- San Francisco Government Television (2013, November 7). Neighborhood Services and Safety

 Committee Hearing on the Operational and Budgetary Needs of Animal Care and

 Control [Online Video]. Available from

 http://sanfrancisco.granicus.com/ViewPublisher.php?view_id=164

- San Francisco SPCA. (2013). Free Spay/Neuter for San Francisco Pit Bulls and Pit Mixes at the SF SPCA. Retrieved from http://sfspca.org/veterinary-hospital/veterinary-services/spayneuter-clinic/pit-fix
- Social Compassion in Legislation. (2009). *Attitudes About Spay and Neuter in California*. Retrieved November 30, 2012 from http://www.yesonsb250.com/sb250-home.php
- Sturla, K. (1993). Role of breeding regulation laws in solving the dog and cat overpopulation problem. *Journal of the American Veterinary Medical Association*, 202(6), 928-932.
- Weng, H., & Hart, L. A. (2012). Impact of the Economic Recession on Companion Animal Relinquishment, Adoption, and Euthanasia: A Chicago Animal Shelter's Experience. *Journal Of Applied Animal Welfare Science*, 15(1), 80-90. doi:10.1080/10888705.2012.624908
- Wenstrup, J., & Dowidchuk, A. (1999). Pet Overpopulation: Data and Measurement Issues in Shelters. *Journal Of Applied Animal Welfare Science*, 2(4), 303.
- Zanowski, G. N. (2012). A fresh look at spay/neuter legislation: The journey to a middle ground. *Journal of Public Health Management and Practice*, 18(3), E24-E33.

 doi:10.1097/PHH.0b013e318222a7f5