



The Fiscal Impact of Breed Discriminatory Legislation in the United States

**Prepared for
Best Friends Animal Society**

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**Best Friends Animal Society:
Kindness to animals builds a better world for all of us**

Summary Results:

Over the last decade, the number of dogs in the United States has steadily increased along with the population of people. The American Pet Products Association estimates that in 2011, 39% of households owned at least one dog during the year.¹ According to John Dunham & Associates estimation, there are over 73.6 million dogs in the United States. As the dog population continues to increase, there are bound to be more conflicts between man and canine, ranging from noise complaints to bites. For this reason, some sort of animal control is required in order to ensure safety to citizens and humane conditions for animals.

While it is important that individual violent or uncontrollable dogs be removed from society, for years some jurisdictions have considered implementing breed-specific restrictions which indiscriminately target “pit bull type” dogs. Dogs which can be described as pit bulls make up an average of 6.9 percent of the entire population, or about 5 million dogs.² Breed discriminatory legislation regulates, and even bans, certain breeds of dogs based solely on their lineage and regardless of an animals’ individual behavior or temperament. In this case, dogs which can be described as pit bulls usually include the pure breeds (American Pit Bull Terrier, American Staffordshire Terrier, and Staffordshire Bull Terrier), any mixed breed dog which shares lineage with any of the previously mentioned pure breeds or in some cases any short hair muscular dog.³

Table 1 below presents a summary of the number of dogs affected and the estimated fiscal impact of enacting breed discriminating legislature nationally.

**Table 1:
Animals Impacted by Breed Discriminatory Legislation in the United States**

Estimated Number of Dogs	73,647,000
Estimated Number of Pit Bull type Dogs	5,117,000

Costs Associated With Breed Discriminatory Legislation

Enforcement	\$ 272,323,420
Kenneling and Veterinary Care	\$ 77,006,130
Euthanizing and Disposal	\$ 11,689,040
Litigation Costs	\$ 70,354,410
DNA Testing	\$ 45,600,320
Total Estimated Annual Cost	\$ 476,973,320

1 See: American Pet Products Association, 2011-2012 APPA National Pet Owners Survey, cited by The Humane Society of the United States, Aug 12 2011: www.humanesociety.org/issues/pet_overpopulation/facts/pet_ownership_statistics.html

2 Based on study by John Dunham and Associates where the average number of dogs which can be described as pit bulls, 6.9 percent, was calculated from local and national statistics found on media reports, animal activist reports, federal government reports, and dog-bite victims groups.

3 See: Denver, Colo., Code div. 3, § 8-55 (1989).According to the Denver code, “a ‘pit bull,’ for purposes of this chapter, is defined as any dog that is an American Pit Bull Terrier, American Staffordshire Terrier, Staffordshire Bull Terrier, or any dog displaying the majority of physical traits of any one (1) or more of the above breeds, or any dog exhibiting those distinguishing characteristics which substantially conform to the standards established by the American Kennel Club or United Kennel Club for any of the above breeds.”

Breed discriminatory legislation will not only exhaust the limited resources of the already underfunded animal control programs by flooding them with potentially “unadoptable” dogs; it could cost individual communities millions of dollars while providing questionable results fulfilling its purpose of preventing dog related injuries and fatalities.⁴ The costs of enforcing breed discriminatory legislation include but are not limited to:

- Animal control and enforcement costs,
- Expenses for kenneling and veterinary care,
- Expenses related to euthanasia and carcass disposal,
- Litigation costs from residents appealing or contesting the law, and
- Possible DNA testing costs.

Additional costs depending on current resources available to a specific community’s animal control program may include:

- Additional shelter veterinarians,
- Increased enforcement staffing, and
- Capital costs associated with increased shelter space needed.

Breed discriminatory legislation, essentially canine racial profiling, is a misguided attempt to reduce the number of fatalities and injuries caused by dogs. Identification of the breed makeup of a dog is highly imprecise due to the processes currently being used. DNA tests are available to identify breeds of dogs but these are limited to the breeds that have been catalogued. For those not catalogued, there is no way other than through experience and observation of physical traits and characteristics to determine the breed of a dog. This subjective and inaccurate way of identifying an “offender” is not only unfair but terrifying to dog owners whose pets have even the slightest physical resemblance to the breeds included in the proposed legislature yet do not share any genetic make-up or have any history of behavioral problems.⁵ The nature of this method of identification allows the possibility for error by allowing legally permitted dogs to be captured and euthanized solely based on a person’s opinion on the dog’s breed make-up. In addition to the difficulty identifying breed make-up, regulation of specific breeds for the reduction of dog related injuries is inherently flawed since there is no proof that violent behavior is hereditary. It can be argued, though, that a dog’s tendency to bite could be affected by:

- Socialization, or lack of, between the dog and people and other animals,
- Proper, or improper, obedience training,
- Supervision and conditions of living for the dog,
- Victims behavior,
- If the dog is spayed/neutered or unaltered.⁶

Best Friends Animal Society, the flagship of a grassroots network of people and organizations that care about animals, understands the importance of well funded animal control efforts. Breed discriminatory legislation can cost huge amounts of money and take away resources from where they can be most effective.

4 Vicious Animal Legislation Task Force, Prince George’s County, Maryland, *Report of the Vicious Animal Legislation Task Force*, 2003. On-line at <http://www.understand-a-bull.com/BSL/Research/PGCMD/PGCMTOC1.htm>. See: Findings and Reasons for Inefficiency.

5 Vicious Animal Legislation Task Force, Prince George’s County, Maryland, *Report of the Vicious Animal Legislation Task Force*, 2003. On-line at <http://www.understand-a-bull.com/BSL/Research/PGCMD/PGCMTOC1.htm>. See: The Humane Society of the United States – BSL Official Position Statement.

6 Ibid.

Methodology:

The Best Friends Animal Society Dog Population and Breed Discriminatory Legislation Model begins by estimating the number of dogs in a given community.⁷ Using the average proportion of pit bulls to total dogs, an estimate of the number of dogs affected by the breed discriminating legislature can be determined.⁸

The total dog population in a specific location can be estimated based on demographic statistics of the human population living in the specified location. By using data on the reported number of dogs in specific cities, counties, and states, and non-linear programming models we are able to generate an estimate of the number of dogs in a given location.

Once the number of dogs in a given location has been calculated, those animals affected by the breed discriminatory legislation can be estimated using the national averages obtained as part of this analysis. An average was calculated from the data collected on the proportion of dogs which can be described as pit bulls from citywide and nationwide figures culled from research by national dog bite victims groups, national media publications, federal government reports, and animal welfare groups.

Not every dog captured will be euthanized as some are able to be released based on evidence that they do not share lineage with any of the banned breeds. Some dog owners will be able to rescue their dogs by agreeing to move outside the breed legislation's jurisdiction, and some dogs will be rescued by animal rescue groups. An estimate of the number of dogs that are euthanized is calculated based on averages for reporting jurisdictions.

Once the number of dogs affected by the breed discriminatory legislature is calculated, costs to implement this legislature can be determined. By taking the weighted average of the data collected we were able to determine:

- Enforcement costs
- Percentage of dogs captured/euthanized
- Average time/cost for a dog to be kenneled
- Cost for euthanasia and disposal of carcass
- Possible litigation and DNA testing costs

Model Description and Data:

This Best Friends Animal Society Dog Population and Breed Discriminatory Legislation Model (Model) was developed by John Dunham and Associates based on data provided by the Federal government, national dog bite victims groups, national media reports, animal activist groups, court transcripts, animal welfare publications, and canine registries. The model utilizes non-linear programming to determine the number of dogs in a geographical area using demographic data about the population (number of households, population, area, structural type of housing, gender, poverty rate, ethnicity, and married rate)

Non-linear programming is the process of solving a system of constraints over a set of unknown real variables, while maximizing or minimizing an objective function. In this case, the model uses

7 The number of licensed dogs is but a small percentage of the actual dog population. The absence of a central dog registry or census has made it impossible to determine exact number of dogs in a given location, let alone the number of dogs affected by a breed discriminating legislation.

8 John Dunham and Associates calculations, 2009. For this analysis the number of dogs considered to be "Pit Bulls" is equal to 6.9 percent of total dog population.

demographic data on the population of a certain location and data points found on specific cities, counties, and states to solve for the population of dogs in that given geographical area.⁹

Once the total dog population estimates have been established, they are entered into a model linked to data about the average number of dogs which can be described as pit bulls in the total dog population in that location.

- Demographic data on the population is based on Census Bureau statistics.¹⁰
- Data points for the non-linear programming model were collected from the Federal government, national dog bite victims groups, national media reports, animal activist groups, court transcripts, animal welfare publications, and canine registries. Data collected on the proportion of dogs which can be described as pit bulls to total number of dogs ranged from 2 percent up to 9.7 percent. An average of these figures is found to be 6.9 percent.

The cost of enforcing a breed discriminatory legislation can be determined by linking the figures on the number of dogs affected to a cost estimation model. Costs were broken down into five categories:

- Enforcement costs were based on animal control costs of over 2,800 law enforcement agencies across the United States.¹¹
- Kenneling and veterinary costs were based on average national costs which were indexed by price for every state according to government costs reported by Census.¹²
- Euthanasia and disposal costs were based on the percentage of dogs which can be described as pit bulls that are euthanized and the average national cost of euthanasia, again indexed by price for every state.¹³
- Possible litigation were calculated from average per capita court costs across states and fitted to data found on previous cases where breed discriminatory legislation was challenged.
- DNA testing costs were calculated using the average price for the DNA tests and the number of dogs to be euthanized.¹⁴

9 Data collected on dog population from the following locations: New York, NY; Boulder County, CO; Philadelphia, PA; Portland, OR; Missoula, MT; San Francisco, CA; Los Angeles, CA; Colorado Springs, CO; Chicago, IL; Pierce County, WA; Snohomish County, WA; Kitsap, WA; Tacoma, WA.

10 U.S. Census Bureau 2010 American Community Survey

11 U.S. Dept. of Justice, Bureau of Justice Statistics. *Law Enforcement Management And Administrative Statistics (Lemas): 2003 Sample Survey Of Law Enforcement Agencies*, Computer data file:ICPSR04411-v1. Washington, DC: U.S. Dept. of Commerce, Bureau of the Census, 2006.

12 Data on the number of dogs captured in areas where breed discriminating legislature was being enforced averaged 5.87% of the total population of dogs that can be described as pit bulls each year. Average national costs for kenneling were found to be about 15 dollars per day, for an average of 16 days. This cost was then indexed by price across states using data on direct expenditure from U.S. Census Bureau State and Local Government Finances: 2009. On-line at: <http://www.census.gov/govs/estimate/>

13 Average proportions of dogs that are euthanized and cost of euthanasia are calculated to be about \$50 per dog and about 72 percent of dogs captured were euthanized. The average cost is then indexed by price using data on direct expenditure from U.S. Census Bureau State and Local Government Finances: 2009.

14 Average costs for DNA testing, \$120, were obtained from Best Friends and applied to the number of dogs to be euthanized. Litigation costs were based on data obtained from court appeals in locations where breed discriminating legislature was challenged. Average per capita costs were calculated from these locations and using judicial and legal expenditure figures from U.S. Census Bureau State and Local Government Finances: 2009, indexed by price across states.