



BREED SPECIFIC LEGISLATION

NATIONAL CANINE RESEARCH COUNCIL

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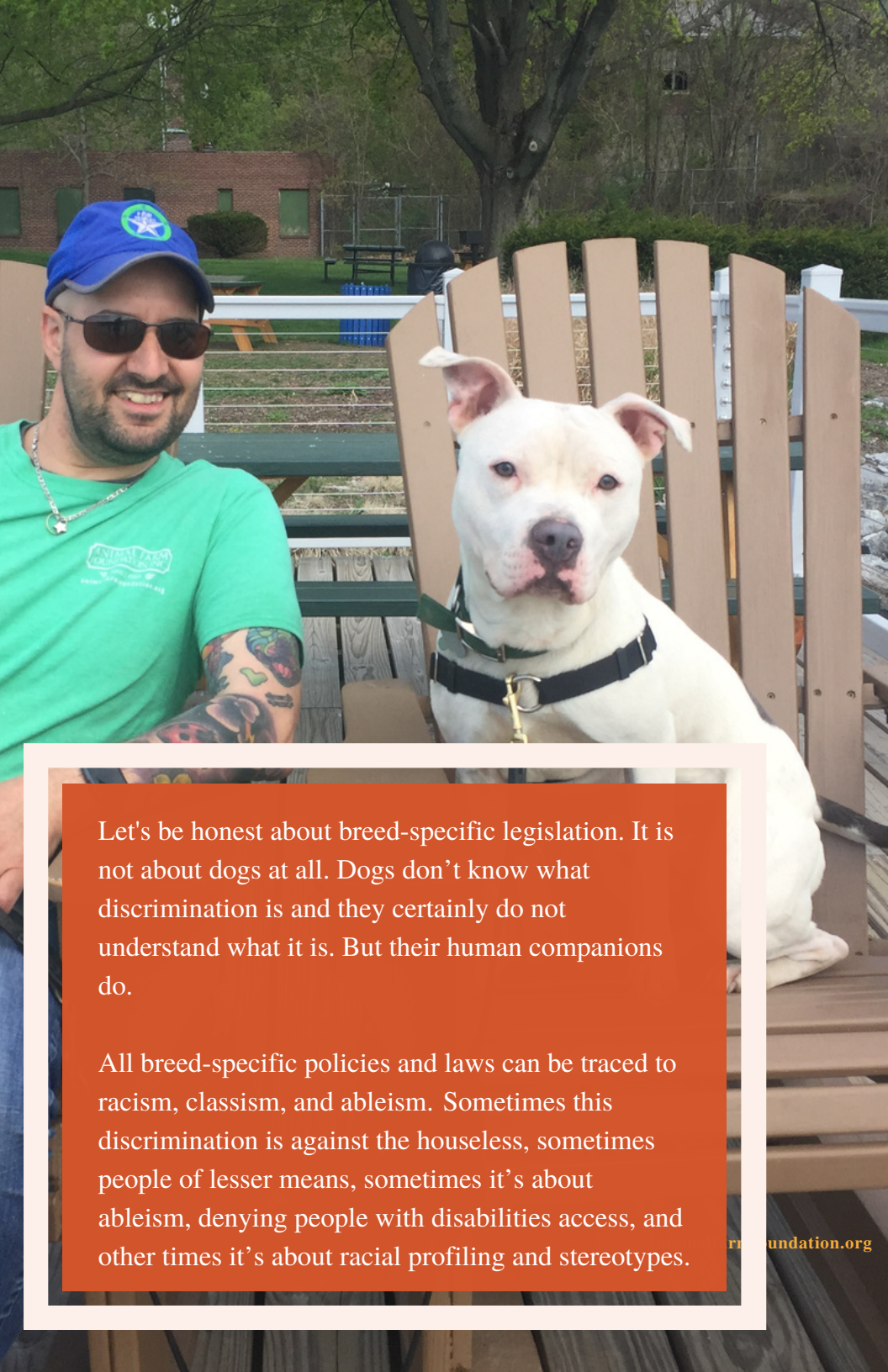
Breed-specific legislation (BSL) is a law or ordinance that puts regulations on or completely bans the keeping of dogs of specific breeds, dogs presumed to be specific breeds, mixes of specific breeds, and/or dogs presumed to be mixes of one or more of those breeds.

BSL is most often enforced through a subjective visual breed identification, something which research shows is inaccurate.



BSL CAN INCLUDE

- Mandatory spay-neuter
- Mandatory muzzling
- Liability insurance requirements
- Special licensing and additional fees
- Mandatory microchipping or tattoos
- Owner/walker age requirements
- Property posting requirements
- Confinement and leash requirements
- Breed-specific pet limits
- Transfer notification requirements
- Restrictions on access to certain public spaces with the dog [e.g.: public parks, school grounds]
- Required town-issued items [e.g.: fluorescent collar; vest]
- Training requirements
- Requirement that photos of the dog and/or owner be kept on town file



Let's be honest about breed-specific legislation. It is not about dogs at all. Dogs don't know what discrimination is and they certainly do not understand what it is. But their human companions do.

All breed-specific policies and laws can be traced to racism, classism, and ableism. Sometimes this discrimination is against the houseless, sometimes people of lesser means, sometimes it's about ableism, denying people with disabilities access, and other times it's about racial profiling and stereotypes.



BREEDS THAT HAVE BEEN SUBJECTED TO BREED-SPECIFIC BANS & REGULATIONS

- Akita inu
- "Alapaha blue blood bull dog"
- Alaskan malamute
- "American bandogge"
- American bulldog
- American staffordshire terrier
- American pit bull terrier
- "Aussie bull dog"
- Belgian malinois
- "Banter bull dog"
- Boerboel
- Bullmastiff
- Bull terrier
- "Ca de bou"
- "Canary dog"
- Cane corso
- "Catahoula bull dog"
- Chihuahua

- Chow Chow
- Dalmation
- "Deerhound"
- Doberman pinscher
- Dogo argentino
- Dogue de Bordeaux
- "Dorset olde tyme bull dog"
- English bulldog
- "Fila Brasileiro"
- French bulldog
- German shepherd dog
- Great dane
- Kuvasz
- "Malamute"
- Mastiff
- Miniature bull terrier
- Neapolitan mastiff

- "Old Boston bull dog"
- "Old country bulldog"
- "Pit bull"
- "Pit bull terrier"
- Perro de presa canario
- "Presa mallorquin"
- Rottweiler
- Shar pei
- Siberian husky
- Staffordshire bull terrier
- "Tosa inu"
- "Victorian bull dog"
- "Valley bull dog"
- "Wolfhound"

**note that breeds listed in quotes are not recognized by the AKC or the UKC, but appear in written legislation*

ORGANIZATIONS THAT DO NOT ENDORSE BREED SPECIFIC LEGISLATION

This list is not intended to be comprehensive, as there are numerous other organizations that have publicly voiced that they do not endorse BSL.



“The American Bar Association urges all state, territorial, and local legislative bodies and governmental agencies to adopt comprehensive breed-neutral dangerous dog/reckless owner laws that ensure due process "protections for

“owners, encourage responsible pet ownership and focus on the behavior of both dog owners and dogs, and to repeal any breed discriminatory or breed specific provisions.”



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“The American Kennel Club supports reasonable, enforceable, non-discriminatory laws to govern the ownership of dogs. The AKC believes that dog owners should be responsible for their dogs...”

"...The AKC strongly opposes any legislation that determines a dog to be “dangerous” based on specific breeds or phenotypic classes of dogs.”



According to Animal Farm Foundation, "breed bans or restrictions do not contribute to improved public safety. Regulating breeds puts the focus on the dog, without addressing owner behavior and owner responsibility to the animal and the community.”

ORGANIZATIONS THAT DO NOT ENDORSE BSL



The [American Society for the Prevention of Cruelty to Animals](#) states: "... in light of the absence of scientific data indicating the efficacy of breed specific laws, and the unfair and inhumane targeting of responsible pet guardians and their dogs that inevitably results when these laws are enacted, the ASPCA instead favors effective enforcement of a combination of breed-neutral laws that hold reckless dog guardians accountable for their dogs' aggressive behavior."



"The [American Veterinary Medical Association](#) supports dangerous animal legislation by state, county, or municipal governments provided that legislation does not refer to specific breeds or classes of animals. This should be directed at

fostering safety and protection of the general public from animals classified as dangerous."



"The [American Veterinary Society of Animal Behavior's](#) position is that such legislation—often called breed specific legislation (BSL)—is ineffective, and can lead to a false sense of community safety as well as welfare "concerns for dogs identified (often

incorrectly) as belonging to specific breeds...." "...Therefore, the AVSAB does support appropriate legislation regarding dangerous dogs, provided that it is education based and not breed specific."



"The [Association of Professional Dog Trainers \(APDT\)](#) "...The APDT opposes any law that deems a dog as dangerous or vicious based on appearance, breed or phenotype. Canine temperaments are widely varied, and behavior cannot be predicted by physical features such as head shape, coat length, muscle to bone ratio, etc. The only predictor of behavior is behavior."

ORGANIZATIONS THAT DO NOT ENDORSE BSL



Best Friends Animal Society states: "Though breed-discriminatory legislation (BDL) is often an attempt to improve public safety, studies show that it does not accomplish that objective. Besides being ineffective, these laws are expensive and difficult to enforce and also interfere with citizens' property rights."



The **British Veterinary Association** says: "In principle, we are opposed to any proposal or legislation that singles out particular breeds of dogs rather than targeting individual aggressive dogs. The problems caused by dangerous dogs will never be solved until dog owners appreciate that they are responsible for the actions of their animals."



The **Humane Society of the United States** says: "The Humane Society of the United States opposes breed-based laws and policies and works with policymakers around the country to implement smarter, better policies for safer communities."



The **National Animal Control Association** (NACA) says: "Dangerous and/or vicious animals should be labeled as such as a result of their actions or behavior and not because of their breed. Any animal may exhibit aggressive behavior

regardless of breed. Accurately identifying a specific animal's lineage for prosecution purposes may be extremely difficult. Additionally, breed specific legislation may create an undue burden to owners who otherwise have demonstrated proper pet management and responsibility...."

ORGANIZATIONS THAT DO NOT ENDORSE BSL



The [National Canine Research Council](#) says:
"The best ways to reduce dog bite-related incidents in a community are multifactorial approaches focusing on improved ownership and husbandry practices, better

understanding of canine behavior, education of parents and children regarding safety around dogs, and consistent enforcement of dangerous dog/reckless owner ordinances in communities. Effective laws hold all dog owners responsible for the humane care, custody, and control of all dogs regardless of breed or type."



"The [Pet Professional Guild \(PPG\)](#) holds that breed specific legislation (BSL) paints an unjust picture of certain breeds of dogs and punishes responsible dog guardians unnecessarily. PPG considers BSL to be ineffective in dog bite prevention and the safety of the public at large, and opposes any law or regulation that discriminates against dogs based purely on breed or appearance...."



The [United Kennel Club](#) states: "Attempting to attribute bites to a single breed and labeling that breed is fruitless, as there exists no real, factual data to show that any one breed is more responsible for bites and attacks than others. Singling out a breed to attach blame does not work to decrease dog attacks..."

ORGANIZATIONS THAT DO NOT ENDORSE BSL



"The Royal Society for the Prevention of Cruelty to Animals - UK (RSPCA) agrees that dog bites have significant physical and psychological consequences and we need a holistic approach to reducing incidents. The steady increase over recent years in the number of

dog bites demonstrates clearly that the intended effect of [BSL] in enhancing public safety is failing and will continue to fail. Reduction and prevention of incidents requires education and effective, appropriate legislation..."



State Farm Insurance states: "All dogs can be 'great dogs,' regardless of breed, if they are properly cared for, loved and trained. State Farm determines risk based on a dog's bite history rather than breed. Thus, State Farm does not exclude insuring households solely based on breed."



"The Department of Justice does not believe that it is either appropriate or consistent with the Americans with Disabilities Act (ADA) to defer to local laws that prohibit certain breeds of dogs based on local concerns that these breeds may have a history of unprovoked aggression or attacks. Such deference would have the effect of limiting the rights of persons with disabilities under the ADA who

use certain service animals based on where they live rather than on whether the use of a particular animal poses a direct threat to the health and safety of others."



The stance of the Obama Administration:

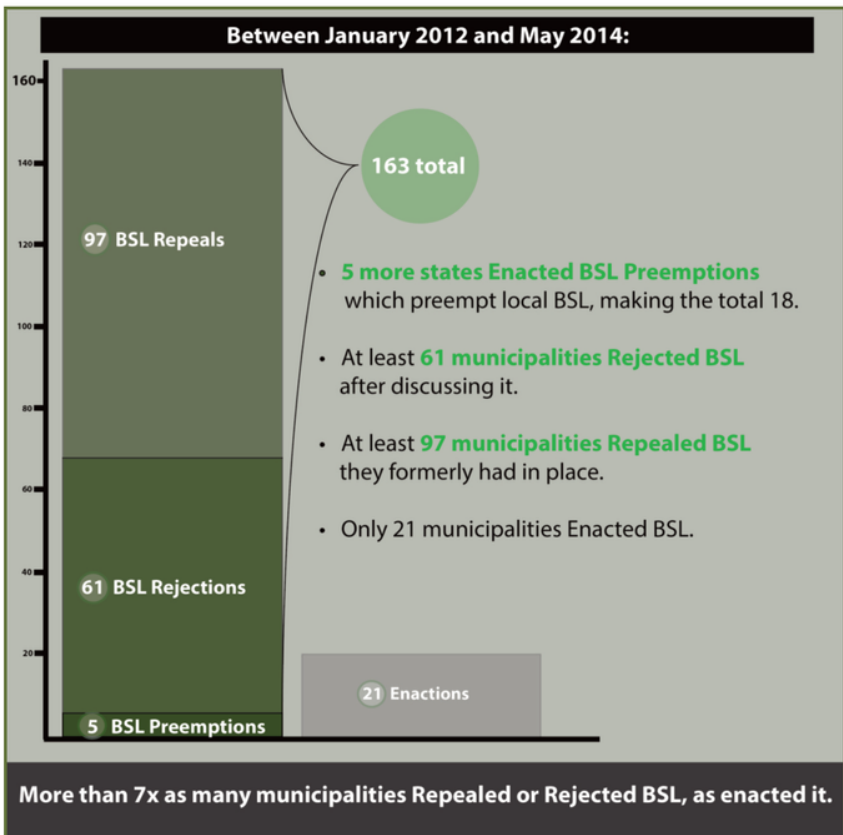
"We don't support breed specific legislation — research shows that bans on certain types of dogs are largely ineffective and often a waste of public resources."

BREED-SPECIFIC LEGISLATION IS ON THE DECLINE

5 MORE STATES NO LONGER ALLOW BSL & MORE THAN 7X AS MANY U.S. MUNICIPALITIES REPEALED OR REJECTED PROPOSED BSL, THAN ENACTED BETWEEN: JANUARY 2012-MAY 2014

The national trend is moving steadily away from breed-specific legislation (BSL) and toward breed neutral laws that hold all owners equally accountable for the humane care, custody, and control of their dogs. The list of states that are considering and passing legislation to preempt municipalities from passing BSL continues to grow.

BSL is a discriminatory law or ordinance that prohibits or restricts the keeping of dogs of specific breeds, dogs presumed to be specific breeds, mixes of specific breeds, and/or dogs presumed to be mixes of specific breeds.¹



The trend reflects a growing understanding that regulating dogs on the basis of breed or physical description does not reduce dog bites.^{2,3} An evidence-based analysis published in 2010 offers one explanation for the failure of BSL: absurdly large numbers of targeted breeds would have to be completely removed from a community in order to prevent even one serious dog-bite related injury.⁴ Most importantly, studies continue to show that one kind of dog is no more likely to threaten or bite a human being than another.^{5,6,7} The American Bar Association has urged the repeal of all BSL.⁸ The White House also opposes BSL and released a statement saying, “research shows that bans on certain types of dogs are largely ineffective and often a waste of public resources.”⁹ No major national organizations endorse BSL, including the American Veterinary Medical Association, the American Veterinary Society of Animal Behavior, the Centers for Disease Control, the Humane Society of the United States, the National Animal Control Association, the American Society for the Prevention of Cruelty to Animals, and Best Friends Animal Society. The tide has turned against BSL and communities are implementing policies that hold all dog owners responsible for the humane care, custody, and control of their dogs, regardless of breed or appearance. Building safer and more humane communities requires multifactorial approaches¹⁰ focusing on improved ownership and husbandry practices, better understanding of dog behavior, education of parents and children regarding safety around dogs^{11,12,13,14}, and consistent enforcement¹⁵ of dangerous dog/reckless owner ordinances in communities.

SOURCES and NOTES

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POTENTIALLY PREVENTABLE HUSBANDRY FACTORS CO-OCCUR IN MOST DOG BITE-RELATED FATALITIES

A COMPREHENSIVE STUDY USING A NEW APPROACH

In December, 2013, *The Journal of the American Veterinary Medical Association (JAVMA)* published the most comprehensive multifactorial study of dog bite-related fatalities (DBRFs) to be completed since the subject was first studied in the 1970's.¹ It is based on investigative techniques not previously employed in dog bite or DBRF studies and identified a significant co-occurrence of multiple potentially preventable factors.

“This study and its methodology offer an excellent opportunity for ... anyone concerned with the prevention of dog bite-related injuries, to develop an understanding of the multifactorial nature of both serious and fatal incidents.”

Experts have for decades recommended a range of ownership and husbandry practices to reduce the number of dog bite injuries.² The 2013 JAVMA paper confirms the multifaceted approach to dog bite prevention recommended by previous studies, as well as by organizations such as the Centers for Disease Control and Prevention³ and the American Veterinary Medical Association.⁴

The five authors, two of whom are/were on the staff of the National Canine Research Council,⁵ and one of whom (Dr. Jeffrey Sacks) was lead author on earlier studies of DBRFs, analyzed all the DBRFs known to have occurred during the ten-year period 2000 – 2009. Rather than rely predominantly on information contained in news accounts, as had previous studies of DBRFs, detailed case histories were compiled using reports by homicide detectives and animal control agencies, and interviews with investigators.

The case histories were compiled over a sufficiently long period of time – months or years, depending on the individual case – for the entire range of available facts surrounding an incident to come to light. The researchers found that their more extensive sources usually provided first-hand information not reported in the media, and often identified errors of fact that had been reported in the media.

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POTENTIALLY PREVENTABLE FACTORS

The researchers identified a striking co-occurrence of multiple, controllable factors: no able-bodied person being present to intervene (87.1%); the victim having no familiar relationship with the dog(s) (85.2%); the dog(s) owner failing to neuter/spay the dog(s) (84.4%); a victim's compromised ability, whether based on age or physical condition, to manage their interactions with the dog(s) (77.4%); the owner keeping dog(s) as resident dog(s), rather than as family pet(s) (76.2%); the owner's prior mismanagement of the dog(s) (37.5%); and the owner's abuse or neglect of dog(s) (21.1%). Four or more of these factors were present in 80.5% of cases; breed was not one of those factors.

The distinction between a resident dog and a family dog was first proposed years ago by National Canine Research Council Founder Karen Delise.⁶ 76.2% of the DBRFs in this study involved dogs that were not kept as family pets; rather they were only resident on the property. Dogs are predisposed to form attachments with people, to become dependent on people, and to rely upon their guidance in unfamiliar situations. While it is extremely rare that dogs living as either resident dogs or as family pets ever inflict serious injuries on humans, dogs not afforded the opportunity for regular, positive interaction with people may be more likely, in situations they perceive as stressful or threatening, to behave in ways primarily to protect themselves.

THE STUDY'S FINDINGS ON BREED

The authors of the 2013 *JAVMA* paper reported that the breed(s) of the dog or dogs could not be reliably identified in more than 80% of cases. News accounts disagreed with each other and/or with animal control reports in a significant number of incidents, casting doubt on the reliability of breed attributions and more generally for using media reports as a primary source of data for scientific studies. In only 45 (18%) of the cases in this study could these researchers make a valid determination that the animal was a member of a distinct, recognized breed. Twenty different breeds, along with two known mixes, were identified in connection with those 45 incidents.

The most widely publicized previous DBRF study⁷ which was based primarily on media reports, qualified the breed identifications obtained in their dataset, pointing out that the identification of a dog's breed may be subjective, and that even experts can disagree as to the breed(s) of a dog whose parentage they do not know. It has been known for decades that the cross-bred offspring of purebred dogs of different breeds often bear little or no resemblance to either their sires or dams.⁸ The previous DBRF study also did not conclude that one kind of dog was more likely to injure a human being than another kind of dog.

Lack of reliable breed identifications is consistent with the findings of Dr. Victoria Voith of Western University^{9,10} and of the Maddie's Shelter Medicine Program at the University of Florida's College of Veterinary Medicine.^{11,12} Both Dr. Voith and the Maddie's Shelter Medicine Program conducted surveys¹³ showing that opinions ventured by those working in animal-related fields regarding the breed or breeds in a dog of unknown parentage

agreed with breed as detected by DNA analysis less than one-third of the time.¹⁴ Participants in the surveys conducted at both universities frequently disagreed with each other when attempting to identify the breed(s) in the same dog.

90% of the dogs described in this DBRF study's case files were characterized in at least one media report with a single breed descriptor, potentially implying that the dog was a purebred dog. A distribution heavily weighted toward pure breed is in stark contrast to the findings of population-based studies indicating that ~ 46% of the dogs in the U.S. are mixed breed.¹⁵ Thus, either the designation of breed in the media reports for the cases under examination was done very loosely, and without regard to possible mixed breed status, or purebred dogs were heavily over-represented. The latter conclusion did not seem likely to these authors, particularly in light of the photographic evidence they were able to obtain. Finally, the news accounts erroneously reported the number of dogs involved in at least 6% of deaths.

The earlier, widely publicized study of DBRFs has been misunderstood, and misused to justify single-factor policy proposals such as breed-specific legislation (BSL), though the authors of that study did not endorse such policies. Failure to produce a reduction in dog bite-related injuries in jurisdictions where it has been imposed^{16,17} has caused the support for BSL to fade in recent years.¹⁸ The House of Delegates of the American Bar Association has passed a resolution urging all state, territorial and local legislative bodies and governmental agencies to repeal any breed discriminatory or breed specific provisions.¹⁹ In 2013, the White House, citing the views of the Centers for Disease Control and Prevention, published a statement with the headline, "Breed- specific legislation is a bad idea."²⁰ BSL is also opposed by major national organizations, including the American Veterinary Medical Association, the National Animal Control Association, the Humane Society of the United States, the American Society for the Prevention of Cruelty to Animals, and Best Friends Animal Society.

UNDERSTANDING AND ADDRESSING HUSBANDRY FACTORS WILL LEAD TO BETTER PREVENTION

The trend in prevention of dog bites continues to shift in favor of multifactorial approaches focusing on improved ownership and husbandry practices, better understanding of dog behavior, education of parents and children regarding safety around dogs, and consistent enforcement of dangerous dog/reckless owner ordinances in communities. The findings reported in this study support this trend. The authors conclude that the potentially preventable factors co-occurring in more than 80% of the DBRFs in their ten-year case file are best addressed by multifactorial public and private strategies.

Further, they recommend their coding method to improve the quantity and quality of information compiled in future investigations of any dog bite-related injuries, not just DBRFs. This study and its methodology offer an excellent opportunity for policy makers, physicians, journalists, indeed, anyone concerned with the prevention of dog bite-related injuries, to develop an understanding of the multifactorial nature of both serious and fatal incidents.

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ESTABLISHED EPIDEMIOLOGICAL MEASURE SHOWS WHY BREED BANS FAIL TO REDUCE DOG BITE INJURY

ABSURDLY LARGE NUMBER OF DOGS WOULD NEED TO BE REMOVED TO PREVENT ONE SERIOUS BITE

For years, evidence has mounted that breed-specific legislation (BSL) fails to reduce dog bite incidents. The data supporting this conclusion has come from North America and European countries.¹

An insightful analysis, published in the *Journal of the American Veterinary Medical Association* in 2010, explains why BSL has consistently failed to reduce dog bites.² The authors, Gary Patronek, Amy Marder and Margaret Slater, applied one of the most valuable and well recognized tools of evidence-based medicine to this question.

Number needed to treat (called NNT) measures the effectiveness of new medicines or treatments. It asks the question: How many patients have to take the medicine or get the treatment in order for one patient to avoid a bad outcome? The fewer patients that have to be treated in order to avoid a bad outcome, the more effective scientists consider a medicine or treatment to be.

But what if we had to treat thousands of patients to avoid even one bad outcome? Would we bother with a new medicine if the number of people we needed to treat to prevent one bad outcome was 10,000? If we could only identify 9,900 people suffering from the disease, we could not treat enough people with the new medicine to be sure that even one of them would avoid the dreaded symptom.

This is precisely the result that Patronek and his colleagues obtained when they applied this evidence based method to estimating how many dogs a community would have to ban to prevent a single, serious dog bite. They called their mystery number the number needed to ban (NNB). Using dog bite injury data from the Centers for Disease Control, the State of Colorado, and other smaller jurisdictions, along with estimates of the population of various breeds or kinds of dogs, the authors calculated the absurdly large numbers of dogs of targeted breeds who would have to be completely removed from a community, in order to prevent even one serious dog bite. For example, in order to prevent a single hospitalization resulting from a dog bite, the authors calculate that a city or town would have to ban more than 100,000 dogs of a targeted breed.

To prevent a second hospitalization, double that number.

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While there is no scientific evidence that one kind of dog is more likely to injure a person than another kind of dog, and BSL's documented record is one of ineffectiveness, BSL can still be a policy that some find attractive. Patronek, Marder, and Slater explained why.

"It is our belief," they write in their conclusion, "that BSL is based largely on fear, and it has been emphasized that appeals to fear have their greatest influence when coupled with messages about the high efficacy of the proposed fear-based solution."

The documented failures of BSL combined with the NNB analysis can be marshaled to undermine such fear-based appeals. BSL proponents will be unable to show "high efficacy of the fear-based solution" or that BSL is rationally related to the public safety issues which communities are typically attempting to address when implementing BSL.

Updated February 25, 2016

SOURCES and NOTES

1. For more information see the National Canine Research Council Website: "Breed-Specific Legislation FAQ"
2. Patronek, G.J., Slater, M., & Marder, A. (2010). Use of a number-needed-to-ban calculation to illustrate limitations of breed-specific legislation in decreasing the risk of dog bite-related injury. *Journal of the American Veterinary Medical Association*. 237 (7), 788-792.



Literature Review on the Welfare Implications of The Role of Breed in Dog Bite Risk and Prevention

(May 15, 2014)

BREEDS IMPLICATED IN SERIOUS BITE INJURIES

In a range of studies, the breeds found to be highly represented in biting incidents were German Shepherd Dog,^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,50} mixed breed,^{1,4,6,8,10,11,12,19,17,20,50} pit bull type,^{5,9,13,16,21,20,22,23,24,25,26,27} Rottweiler,^{15,18,22,24,25,28} Jack Russell Terrier,^{21,25,26} and others (Chow Chow,^{7,23} Spaniel,^{14,26} Collie,^{3,29} Saint Bernard,²⁰ and Labrador Retriever²).

If you consider only the much smaller number of cases that resulted in very severe injuries or fatalities,^{21,23} pit bull-type dogs are more frequently identified. However this may relate to the popularity of the breed in the victim's community, reporting biases and the dog's treatment by its owner (e.g., use as fighting dogs²¹). It is worth noting that fatal dog attacks in some areas of Canada are attributed mainly to sled dogs and Siberian Huskies,⁵⁶ presumably due to the regional prevalence of these breeds. See Table 1 for a summary of breed data related to bite injuries.

CONTROLLED STUDIES

The prevalence of particular dog breeds can also change rapidly over time, often influenced by distinct peaks of popularity for specific breeds. It seems that increased popularity is sometimes followed by increases in bite reports in some large breeds. For example there was a distinct peak in American Kennel Club registration of Rottweilers³⁰ between 1990 and 1995, and they come at the top of the list of 'biting breeds' for the first time in studies of bites causing hospitalization in the late 90s and early 2000s.^{25,28,15,58} While it must be noted that other fad breeds such as Dalmatians and Irish setters do not seem to make similar appearances, any estimate of breed-based risk must take into account the prevalence of the breed in the population at the time and place of serious biting events.^{17,31}

For example, researchers can compare well-documented bite cases with matched control households. Using this method, one study found that the breeds disproportionately involved in bite

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injuries requiring medical attention in the Denver area (where pit bull types are not permitted) were the German Shepherd Dog and Chow Chow.⁶⁴

Other studies use estimates of breed prevalence that do not relate specifically to the households where the bites occurred, such as general community surveys, breed registries, licensed dogs or animal shelter populations (See Table 2.). A study in Rome, Italy where *mollosers* dogs like mastiff are reputed to be the most dangerous dogs, found they were not disproportionately involved in biting incidents when taking into account their prevalence in the community.³² These prevalence referenced studies attribute higher risk to the German Shepherd Dog and crosses^{60,61,62,63,64} and various other breeds (mixed breed,^{62,63} Cocker spaniel,^{61,65} Chow Chow,^{64,65} Collie,⁶¹ Doberman,⁶⁰ Lhasa Apso,^{44,65} Rottweiler,⁴⁹ Springer Spaniel,⁴³ Shih Tsu,⁴³ and Poodle⁶²).

AGGRESSIVE BREEDS

Based on behavioral assessments and owner surveys the breeds that were more aggressive towards people were small to medium-sized dogs such as the collies, toy breeds and spaniels.^{33,34,35,36,37} For example, a survey of general veterinary clientele in Canada (specifically practices in New Brunswick, Nova Scotia, and Prince Edward Island) identified Lhasa Apso, Springer spaniel and Shih Tsu as more likely to bite.⁴³

While small dogs may be more aggressive their size means they are less likely to inflict serious bite injury except on vulnerable individuals or as part of a pack attack, which also allows dogs to seriously or injury healthy older children or adults.^{38,39} Referrals for aggression problems more closely approximate the breeds implicated in serious bite attacks, probably because owners are more likely to seek treatment for aggression in dogs that are large enough to be dangerous. Larger dogs (regardless of breed) are implicated in more attacks on humans⁴⁰ and other dogs.⁴¹

Certain large breeds are notably under-represented in bite statistics such as large hounds and retrievers (e.g., Labrador Retrievers and Golden Retrievers)^{35,43}—although even these breeds may have known aggressive subtypes.⁴² Results relating to German Shepherd Dogs are mixed,^{36,43} suggesting there may be particularly high variability in this breed, perhaps depending on regional subtypes or ownership factors.

PIT BULL TYPES

Owners of pit bull-type dogs deal with a strong breed stigma,⁴⁴ however controlled studies have not identified this breed group as disproportionately dangerous. The pit bull type is particularly ambiguous as a “breed” encompassing a range of pedigree breeds, informal types and appearances that cannot be

reliably identified. Visual determination of dog breed is known to not always be reliable.⁴⁵ And witnesses may be predisposed to assume that a vicious dog is of this type.

It should also be considered that the incidence of pit bull-type dogs' involvement in severe and fatal attacks may represent high prevalence in neighborhoods that present high risk to the young children who are the most common victim of severe or fatal attacks. And as owners of stigmatized breeds are more likely to have involvement in criminal and/or violent acts⁴⁶—breed correlations may have the owner's behavior as the underlying causal factor.

BREED BANS

Most serious dog bite injuries (requiring hospital treatment) in the United States are the victim being a young child⁵⁴ and the dog being un-neutered and familiar (belonging to the family, a family friend or neighbor).^{32,47,48,54} Therefore responsible ownership and supervision is key to minimizing the risk of dog bites in communities.

While some study authors suggest limiting ownership of specific breeds might reduce injuries (e.g., pit bull type,⁴⁹ German Shepherd Dog⁵⁰) it has not been demonstrated that introducing a breed-specific ban will reduce the rate or severity of bite injuries occurring in the community.^{8,51} Strategies known to result in decreased bite incidents include active enforcement of dog control ordinances,⁵² and these may include ordinances relating to breed.⁵³

CONCLUSION

Maulings by dogs can cause terrible injuries⁴⁷ and death—and it is natural for those dealing with the victims to seek to address the immediate causes. However as Duffy et al (2008) wrote of their survey based data: *"The substantial within-breed variation... suggests that it is inappropriate to make predictions about a given dog's propensity for aggressive behavior based solely on its breed."* While breed is a factor, the impact of other factors relating to the individual animal (such as training method, sex and neutering status), the target (e.g. owner versus stranger), and the context in which the dog is kept (e.g. urban versus rural) prevent breed from having significant predictive value in its own right. Also the nature of a breed has been shown to vary across time, geographically, and according to breed subtypes such as those raised for conformation showing versus field trials.³⁷

Given that breed is a poor sole predictor of aggressiveness and pit bull-type dogs are not implicated in controlled studies it is difficult to support the targeting of this breed as a basis for dog bite prevention. If breeds are to be targeted a cluster of large breeds would be implicated including the German shepherd and shepherd crosses and other breeds that vary by location.

SEE ALSO:

National Animal Control Association Guideline Statement: *"Dangerous and/or vicious animals should be labeled as such as a result of their actions or behavior and not because of their breed."*

SUMMARY TABLES

Table One

Studies of Serious Dog Bite Injury by Breed

Period	Data Source	N	Country	Top Two Breeds Identified	Ref
1971	US Dept. Health	843	United States (VA)	mixed breed German Shepherd Dog	1
1971-1974	Hospital records	50	South Africa	German Shepherd Dog Labrador Retriever	2
1973-1976	US Dept. Health	2618	United States (AL)	German Shepherd Dog Collie	3
1979-1982	Health Dept. Severe attacks	16	United States (SC)	pit bull type Saint Bernard	21
1981-1983	US Reservations	772	United States	mixed breed unspecified pedigree	19
1982	Hospital Records	420	Canada	German Shepherd mixed breed	54
1982-1989	Hospital records	146	United Kingdom	pit bull type Jack Russell Terrier	22
1987-1988	HASS	487	United Kingdom	mixed breed German Shepherd Dog	4
1979-1998	Fatalities	27	United States	pitt bull type Rottweiler	23
1969-2007	Fatalities	5	New Zealand	pitt bull type --	55
1989	Hospital records	168	United States	German Shepherd Dog pit bull type	5
1989	Hospital records	75	United Kingdom	German Shepherd Dog mixed breed	6
1991	Animal control records	357	United States	German Shepherd Dog Chow Chow	7
1991+1994	Hospital records	198	United Kingdom	German Shepherd Dog mixed breed	8
1989-1996	Hospital records	1109	United States (CA)	pit bull type German shepherd	9

1990-2007	Fatalities	28	Canada	mixed breed husky "sled dog"	56
1995	Patients receiving rabies post-exposure prophylaxis	~8000	United States (PA)	German Shepherd Dog mixed breed	10
1991-2000	Hospital records	654	Spain	German Shepherd Dog mixed breed	11
1996	Hospital records	1916	Australia	German Shepherd Dog Bull Terrier	57
1995-1997	Animal control	?	United States	pit bull type Chow Chow	24
1997	Hospital records	385	Canada	German Shepherd Dog Cocker Spaniel	11
1998-2002	Hospital records	72	Canada	Rottweiler German Shepherd Dog	58
2002	Accident compensation claims	535	New Zealand	Mixed breed German shepherd dog	17
1991-2004	Hospital records	25	South Africa	pit bull type German Shepherd Dog	59
1994-2005	Hospital records	341	Austria	mixed breed German Shepherd Dog	12
1997-2003	Hospital records	11	United States	Rottweiler German Shepherd Dog	15
2001-2002	ACC claims	3020	New Zealand	German Shepherd Dog pit bull type	13
2000-2004	Hospital records	593	United Kingdom	Rottweiler Jack Russell Terrier	28
2001-2005	Hospital records	551	United States	pit bull type Rottweiler	25
2002-2005	Veterinary referral	111	United States (PA)	Springer Spaniel German Shepherd Dog	14
2004-2005	Survey based on Dog Bite Line contacts	234	Ireland	Collie Spanie	29
2001-2011	Hospital records	436	United Kingdom	Staffordshire Bull Terrier Jack Russell Terrier	27
2000-2012	Hospital records	431	Switzerland	German Shepherd Dog Rottweiler	18
2005-2009	Hospital records	40	United States (SC)	Pit bull type Rottweiler	26
2006-2009	Hospital records	203	United States (PA)	Mixed breed Pit bull type	20

Table Two

Studies of Serious Dog Bite Injury by Breed taking into Account Breed Prevalence

Period	Data Source	Prevalence estimate	N	Country	Breeds Identified as Higher Risk	Ref
1974-1975	Animal control	Licensed dogs	?	United States (MD)	German Shepherd Dog and shepherd crosses Doberman Pinscher	60
1976-1977	US Bases	Relative risk versus mixed breed	529	United States (IL, MO)	Collie German Shepherd Dog Cocker Spaniel	61
1982	Pediatric practice	Non-biting pets of other patients	194	United States (MO)	German Shepherd Dog and shepherd crosses mixed breed over 30lb Poodle	62
1986-1987	Health Unit	Licensed dogs	318	Canada	German Shepherd Dog mixed breed	63
1991	Plastic surgery cases	Prevalence in community	146	Australia	German Shepherd Dog	50
1991	Animal control	Case controls	178	United States (CO)	German Shepherd Dog Chow Chow	64
1990-1993	Hospital records	Survey	356	Australia	Doberman Pinscher German Shepherd Dog Rottweiler	49
1993	Shelter animals quarantined for biting	General shelter admissions	170	United States (WI)	Chow Chow Cocker Spaniel Lhasa Apso	65
1996	Owner self-report (biters)	Owner self-report (non-biters)	3226	Canada	Lhasa Apso Springer Spaniel Shih Tsu	43
2003-2004	Shelter and Veterinary Hospital records	Registered dogs	290	Italy	Shepherd breeds	32

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BREED-SPECIFIC OR LOOKS SPECIFIC?

BY: KRISTOPHER IRIZARRY, PhD; ASSOCIATE PROFESSOR: BIOINFORMATICS, GENETICS, GENOMICS: WESTERN UNIVERSITY; ADVISOR TO NATIONAL CANINE RESEARCH COUNCIL

The term “pit bull characteristics” and “all three bully breeds” are used as descriptions of the dogs that the breed-specific laws would apply to. However, I’m not sure what a “pit bull characteristic” is because the term pit bull does not refer to any specific breed of dog. It is ironic that legislation containing the words “breed” and “specific” define “the specific breed” as a nebulous group of three or more distinct breeds along with any other dog that might be mixed with those breeds. It is my professional opinion that this group of dogs must be the most genetically diverse dog breed on the planet. I find it paradoxical that the consensus medical and genetic view is that even one single letter

Breed-specific legislation targets nothing more than a small subset of morphological characteristics of dogs and does not address behavior at all.

~ Dr. Kristopher Irizarry



difference between two people’s DNA can result in dramatic differences in behavior, susceptibility to disease and risk of adverse drug reactions, but, when it comes to man’s best friend, the exact opposite argument is made. I think these attempts to “protect society” from dangerous dogs are flawed because the inherent assumption in these laws is that anatomical and morphological characteristics in dogs correlate with certain behaviors. The genetic program that results in a large thick skull, like that of a Labrador Retriever, is not the same genetic program that builds the brain. The former regulates genes that control the cellular differentiation and anatomical patterning of cartilage, muscle and bone. The latter regulates completely different processes including the highly ordered growth of millions of different neurons that migrate and interconnect to form neuronal circuits that communicate the biochemical language of the brain.

The “science” of inferring cognitive and behavioral traits from physical properties of the head and skull (called phrenology) had been discredited in the last century. Why we would allow laws based on phrenology to be enacted in the 21st century is a question worth investigating.

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HOW LONG BEFORE WE DISCARD VISUAL BREED ID?

2012 SURVEY CONFIRMS THAT EVEN DOG EXPERTS CAN'T JUST TELL BY LOOKING.

In the 1960's, John Paul Scott and John L. Fuller showed that mixed-breed dogs may bear little or no resemblance to their purebred ancestors.¹ In 2009, Dr. Victoria Voith and colleagues published a study indicating a low agreement between the breeds identified by adoption agencies and DNA identification of the same dogs.²

The 5000+ responders were only correct – that is, named at least one of the breeds detected by DNA analysis – less than 1/3 of the time. And no profession did much better than any other. Every profession's responses, in total, were correct less than 1/3 of the time.

The Maddie's® Shelter Medicine Program at the University of Florida's College of Veterinary Medicine has also been looking systematically into the problem of visual breed identification of dogs of unknown origin. A survey conducted at four Florida animal shelters confirmed the unreliability of visual breed identification, thus calling into question yet again its use for dog adoption, lost and found, and regulation.³

The Maddie's® Shelter Medicine Program conducted an expanded survey in 2012.^{4,5} An array of dog experts – breeders, trainers, groomers, veterinarians, shelter staff, rescuers, and others – visually assessed breeds in the dogs in a series of photographs. More than 5,000 completed the survey. Their visual assessments were then compared to DNA breed profiles of the dogs.

Each dog in the survey had at least 25% of a single breed in its DNA profile. A response was considered accurate if it named any of the breeds DNA analysis had detected in the dog, no matter how many other breeds had been detected, and whether or not the breed guessed was a predominant breed in the dog, or only had been detected in a trace amount. Since, in almost every dog multiple breeds had been detected, there were lots of opportunities to be correct. Given the findings of earlier studies, the results were unsurprising. The 5000+ responders were only correct – that is, named at least one of

the breeds detected by DNA analysis – less than 1/3 of the time. And no profession did significantly better than any other. Every profession's responses, in total, were correct less than 1/3 of the time.

In addition, from the variety of visual identifications associated with almost all of the dogs, it is clear that these experts did not agree with each other when they looked at the same dog.*These results corroborate the work that Scott and Fuller published 50+ years ago, that the offspring of even purebred parents are dramatically different in appearance than either of the parent breeds. They are in turn supported by the reports of geneticists that a remarkably small amount of genetic material exerts a remarkably large effect on the size, shape, etc. of a dog.⁶

These reports argue that it is long past time for dog experts to accept the inescapable limitations of visual breed identification of mixed-breed dogs of unknown origin. One step in the right direction is describing mixed-breed dogs without assigning a breed. A 2012 report by two veterinarians and an attorney that appeared in the *Journal of the American Veterinary Medical Association* recommended that veterinarians will better serve their clients and their clients' pets if they adopt a "single non-breed based term to describe all dogs of unknown parentage."⁷



Dog 57

- 25% Beauceron
- 25% Siberian Husky
- 25% American Staffordshire Terrier
- 12.73% Schipperke

Top Responses

- Labrador Retriever
- German Shepherd Dog
- No Predominant Breed
- Golden Retriever
- Anatolian Shepherd Dog

One of the 100 dogs in the study, with corresponding DNA results and visual assessments of survey respondents.

This sound advice for veterinarians is also applicable to animal sheltering, animal control, and public policy. We have placed an entirely unwarranted confidence in shelter intake data, adoption policy and practices, dog bite studies, bite reports, and news accounts that either relate incidents to breed, or presume to predict a dog's future behavior based on breed. Visual breed identification did not only become inaccurate as a result of the surveys mentioned above, or even when *Genetics and the Social Behavior of the Dog* was published back in 1965. Rather, these findings call our attention to what has always been the case.

What Dr. Voith pointed out to the American Veterinary Medical Association in 2009 bears repeating:

"The discrepancy between breed identifications based on opinion and DNA analysis, as well as concerns about reliability of data collected based on media reports, draws into question the validity and enforcement of public and private policies pertaining to dog breeds."⁸

Updated January 20, 2016

*For up to date research on visual breed-identification, including inter-observer reliability, please see the National Canine Research Council Website and Research Library.

SOURCES and NOTES

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RESEARCH ROUNDUP

The following studies explain why visual breed identification is inaccurate, even when done by animal experts. These results challenge the reliability of visual breed identification and its role in public and private policies.

Comparison of Adoption Agency Breed Identification and DNA Breed Identification of Dogs

Research led by Dr. Voith in 2009 compared adoption agencies' visual breed identifications of 20 mixed-breed dogs against DNA identification. Of the dogs identified by agencies as having 1 or 2 specific breeds in their ancestry, 87.5% did not have all of those breeds detected by DNA.

Rethinking Dog Breed Identification in Veterinary Practice

This policy paper by Simpson, et al. argues that because modern dogs are primarily bred for looks vs behavior or tasks, veterinarians should refrain from making determinations about a dog's behavior based on visual identification.

Comparison of Visual and DNA Breed Identification of Dogs and Inter-Observer Reliability

Of the 923 people involved in dog related professions and activities who participated in this 2013 study, less than half correctly visually identified the breeds detected by DNA analysis for 14 of the 20 dogs.

The participants inter-observer agreement was also low, only half of them agreed on a predominant breed for 7 of the 20 dogs. For 3 of those 7 dogs where more than half of the observers agreed on the predominant breed, the visually identified breed did not match any DNA breed identification.



RESEARCH ROUNDUP

Is That Dog a Pit Bull?: A cross-country comparison of perceptions of shelter workers regarding breed identification

In one aspect of this 2014 study, participants were shown 10 different breed names and asked whether they considered them to be alternate names for "pit bulls"; the participants from the U.S. were significantly more likely to classify 6 of those breeds as "pit bulls" than the participants from the U.K., illustrating the differences in how people perceive and label the same dogs.

Inconsistent Identification of Pit Bull-Type Dogs by Shelter Staff

This 2015 study compared 16 shelter staff's visual breed identifications of "pit bull-type dogs" (as defined by the study authors) to DNA analysis.

Of the dogs whose DNA did not reveal contributions from "pit bull-type dogs" (as defined by the study authors), one third were still labeled as a "pit bull-type" by at least one staff member.

Canine Identity Crisis: Genetic breed heritage testing of shelter dogs

This study compared visual breed identification by shelter staff with DNA. Based on the criteria of the study, shelter staff correctly guessed a dog's primary breed 57% of the time. However, 1 in 3 guesses were entirely incorrect.

The authors concluded: "when we consider the complexity of shelter dog breed heritage and the failure to identify multiple breeds based on visual identification coupled with our inability to predict how these breeds then interact within an individual dog... focusing resources on communicating the physical and behavioral characteristics of shelter dogs would best support adoption..."



For an in-depth overview of these studies, visit the [National Canine Research Council](#) (a subsidiary of Animal Farm Foundation.)



Public and private policy should not be based on guesswork

and that's what visual breed identification is.

- Research shows that visual breed identification is inaccurate, even for animal welfare professionals.
- Research has shown, since 1965, that mixed breed dogs frequently do not resemble their parents.
- Research shows that there is considerable behavior variability among individuals of the same breed.
- Research shows us that looks do not equal behavior.

QUOTES FROM DR. VOITH

"It's not that people in these professions aren't good at identifying purebred dogs; it's just that mixed breed dogs do not always look like their parents."

"It amazes me how dogs can look like a breed that doesn't appear to be in their immediate ancestry."

"It's impossible to breed-label dogs of unknown history and genetics solely on the basis of their appearance... And we also know that there's so much behavioral variability within each breed, even more between breed mixes, that we cannot reliably predict a dog's behavior or his suitability for a particular adopter based on breed."

"We have to go from identifying dogs by breed to identifying dogs as individuals."

Dr. Voith quotes taken from *Beyond Breed* By Ted Brewer
Best Friends Magazine, March/April 2011

Given the above, it is not logical for any law or policy to judge a dog based on appearance or on breed.

Breed-specific legislation is not a rational or effective approach to improving public safety. Looks do not equal behavior and are not indicative of whether or not a dog is dangerous. Safety comes from laws and policies governing responsible dog ownership and on the known behavior of individual dogs.

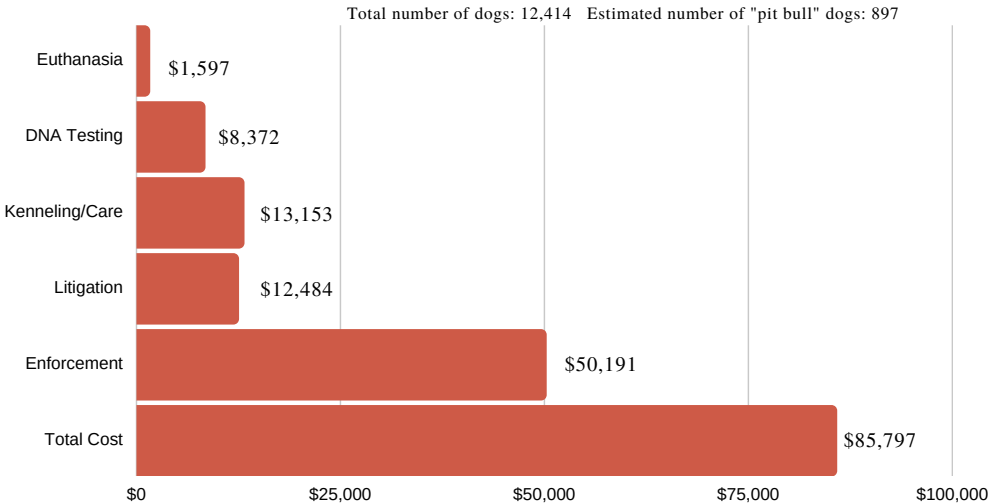


THE FINANCIAL COST OF BREED-SPECIFIC LEGISLATION: PRINCE GEORGE'S COUNTY, MD

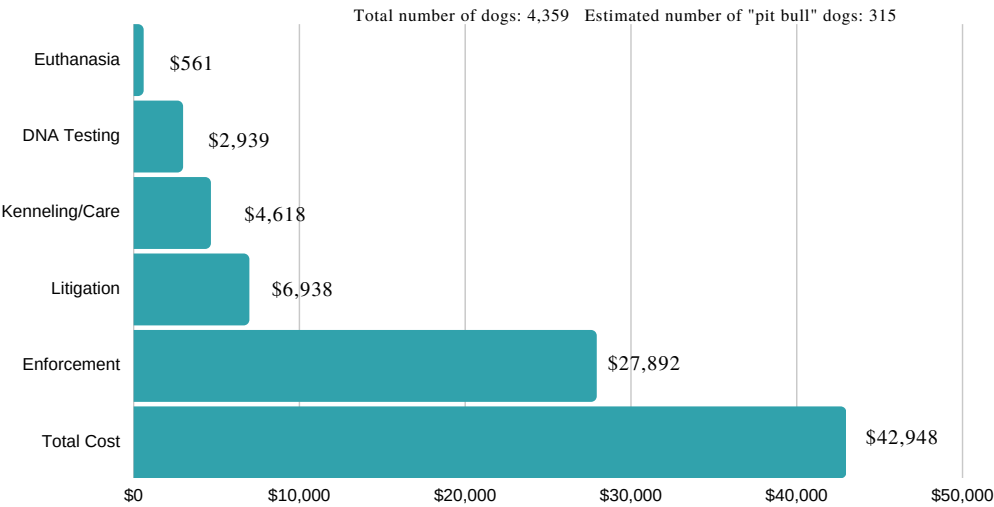
In 2003, Prince George’s County authorized [a task force](#) to examine the results of their ban, which has been in place since 1996. The Task Force reported that the ban was ineffective, has a negative impact on public safety, stretches animal control and sheltering resources thin. The report showed that for the 2001-2002 fiscal year, costs due to “pit bull” dog confiscations totaled \$560,000.

The following charts show estimated costs for some of the cities and towns located in PG County based on [Best Friends' BSL cost calculator](#).

BOWIE, MARYLAND

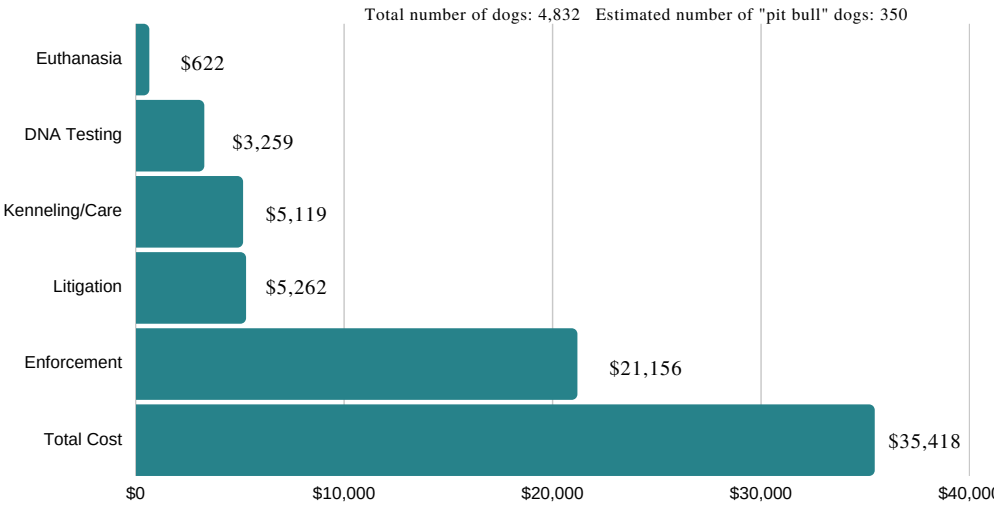


COLLEGE PARK, MARYLAND



Data sourced from Best Friends

GREENBELT, MARYLAND



Data sourced from Best Friends

BREED-SPECIFIC LEGISLATION IS NOT CONSTITUTIONAL



BSL violates the 5th and 14th amendments: Whether we like it or not, pets are considered property. Property cannot be seized without due process. Taking a person's pet away without fair enforcement procedures is a violation of a dog owner's civil rights.

The subjective and unpredictable nature of visual breed ID makes BSL void for vagueness. Dog owners cannot know if BSL applies to them because it is impossible to know how enforcement officers will perceive their dog's appearance.

Laws must be rationally related to a legitimate public interest. Presumably, BSL is enacted in the name of improving public safety but science tells us that neither appearance nor breed of dog is predictive of a dog's propensity to cause harm, making BSL not rationally related to any legitimate public interest.

SIoux CITY, IOWA

In 2008, Sioux City, Iowa enacted a “pit bull” dog ban. In 2016, three dog owners filed suit in federal district court against the City, the city manager, and the Sioux City Animal Adoption & Rescue Center operator.

Much of the testimony for the defense, especially [the testimony by Cindy Rarrat](#), reveals the racism and classism behind this legislation.

The original case was dismissed after all of the plaintiffs either moved from Sioux City, or rehomed their dogs, to protect their pets from being seized and killed by the City government. AFF is helping 5 new dog owners (and counting!), refile the case with all the original testimony and evidence.

“BSL suffers from the fundamental, flawed presumption that breed reliably predicts vicious propensity. It draws from retrospective review of anecdotal evidence based on questionable phenotypic and genotypic identifications (not double-blind, randomized trials that follow breed confirmed dogs till the triggering event, while controlling for confounding variables).”

– [Adam Karp](#), Down to a Science: Combating Breed Discriminatory Litigation with Frye, Daubert, and Rule 702

FEAR VS FACT

FEAR: “Pit bull” dogs have “locking jaws.”

FACT: No dog, of any breed or mix, has an anatomical structure that could be a locking mechanism in their jaw.

“We found that the American pit bull terriers did not have any unique mechanism that would allow these dogs to lock their jaws. There were no mechanical or morphological differences.”
Dr. I. Lehr Brisbin, University of Georgia.

FEAR: “Pit bull” dogs have massive biting power measuring in 1,000s of pounds of pressure per square inch (PSI).

FACT: Scientists consistently use the unit Newtons to quantify force, not pounds per square inch. Dogs in general can range from 13 to 1394 Newtons. - via **Lindner, DL, et.al. Journal of Veterinary Dentistry**

No dog is biologically equipped with a unique biting mechanism or style that would differentiate them from other breeds. No scientific research exists to substantiate the myth that “pit bull” dogs bite differently or more severely.

FEAR: “Pit bull” dogs attack without warning.

FACT: All dogs, including dogs commonly labeled “pit bull” dogs, signal their intent. Researchers at the **Institute of Animal Welfare and Behavior** of the University of Veterinary Medicine in Hannover, Germany determined “no significant difference in behavior between breeds was detected. The results show no indication of dangerousness in specific breeds.”

FEAR: “Pit bull” dogs are more dangerous than other dogs.

FACT: There is no scientific evidence that one kind of dog is more likely than another to injure a human being.

“...Controlled studies have not identified this breed group [pit bull-type dogs] as disproportionately dangerous.” - **American Veterinary Medical Association (AVMA)**

OTHER RESOURCES



Ineffective Policies

<https://www.nationalcanineresearchcouncil.com/public-policy/ineffective-policies>

Breeds and Behavior: A Literature Review

<https://www.nationalcanineresearchcouncil.com/research-library/breeds-and-behavior-literature-review>

Growling, Snarling, Snapping, and Biting Behavior Incidence and Correlates: A literature review

<https://www.nationalcanineresearchcouncil.com/research-library/growling-snarling-snapping-and-biting-behavior-incidence-and-correlates-literature>

BSL FAQ

<https://www.nationalcanineresearchcouncil.com/public-policy/breed-specific-legislation-faq>

Breed-Specific Legislation

HSUS Toolkit

<https://www.animalsheltering.org/page/repealing-breed-specific-legislation>

BSL Fiscal Impact Calculator from Best Friends Animal Society

<http://bestfriends.guerrillaeconomics.net>

Breed Specific Legislation Map

<https://animalfarmfoundation.org/community-advocates/bsl-map/>

RSPCA 2016 Report on the Failure of Dangerous Dog Act

https://www.rspca.org.uk/webContent/staticimages/Downloads/BSL_Report.pdf

Language and Labels Ebook

<https://animalfarmfoundation.org/shelter-rescues/language/>

Sioux City Lawsuit: Information & Depositions

<http://siouxcitylawsuit.org>

In Hiding: The Cruel Cost of BSL

<http://stubbydog.org/2012/07/in-hiding/>

For more information, please visit our website:

www.nationalcanineresearchcouncil.com