



# Accuracy of Breed Identification in Shelter Dogs and the Effects of Breed on Perceived Adoptability

Berkeley Animal Care Services  
City of Berkeley

## Project Summary

Berkeley Animal Care Services (BACS) received a \$2,500.00 grant from Maddie's Fund® for DNA testing of 46 shelter dogs with the purpose of genetically identifying their breeds.

The objectives of the project were to:

- Provide accurate breed identification of shelter animals.
- Educate shelter staff and volunteers about breed identification.
- Educate potential adopters about breed identification.
- Examine assumptions about adoptability of dogs based on appearances.
- Promote the adoption of shelter dogs based on behavior and suitability for the home rather than appearance.

## Part One: Breed Identification

During June-September 2015, 46 dogs were assigned a breed by BACS staff. Then, a sample was submitted for Wisdom Panel® DNA analysis. Shelter staff assessment was considered to match DNA analysis if one predominant breed was guessed correctly. Sixty-seven percent of dogs in this study were *incorrectly* identified by shelter staff; 33% of dogs were *correctly* identified. Mixed breed dogs were more susceptible to inaccurate breed identification, as the predominant breed was identified only 16% of the time. Eighty percent of the dogs in this study were mixed breed dogs.

## Part Two: Adopter Perception Based upon Staff Guess of Dog Breed vs. DNA Analysis

Two different surveys were administered to people visiting the shelter (potential adopters). Surveys contained the same pet photos and document format, however:

- One survey displayed dog pictures alongside the DNA and breed data

- The second survey displayed dog pictures alongside the breed assigned by BACS shelter staff.

In total, 212 people completed the DNA-based breed survey and 209 people completed the guess-based breed survey.

Overall, the two surveys found:

- Visitors to BACS reported being above average in their knowledge of dog breeds.
- Visitors to BACS felt that breed influences behavior.
- There was a trend toward DNA testing improving adoptability (DNA analysis mean 3.85; Breed guess mean 3.65).
  - Adoptability was significantly increased in 23% (5/22) of dogs in the survey.
  - Adoptability was significantly decreased in 5% of the dogs (1/22) in the survey.

## Conclusions

DNA analysis trended toward improving a dog's adoption potential. Predominant breed assigned by shelter staff was often inaccurate, which is consistent with other studies, and did not increase a dog's adoption potential. BACS recommends describing mixed breed dogs related to behavioral characteristics instead of continuing to utilize inaccurate guesses about breed.

