

# Sources of Pets in Austin, Texas: A Pilot Study of the Pet Acquisition Questionnaire

Institute for Human-Animal Connection, University of Denver  
Sloane M. Hawes, MSW, Josephine Kerrigan, Tess Hupe, and Kevin N. Morris, PhD<sup>1</sup>

## Introduction:

Companion animals are acquired from a variety of sources, and there is limited information regarding the behaviors and perspective of pet owners prior to acquiring a pet. One study revealed that some planning usually goes into purchasing a pet from a breeder, private party, pet store, or shelter (Clancy & Rowan, 2003). However, other research has found that 40% of dog owners dedicated less than a week to doing research before purchasing their pet (Royal Society for the Prevention of Cruelty to Animals [RSPCA], 2012), while another study found that 20% of dog owners do no research at all preceding dog acquisition (Kuhl, 2017). Even so, Rowan and Kartal (2018) have data demonstrating that the proportion of dogs acquired in the past 10 years has increased from 46% to 62%. This increase has been accompanied by a steady escalation in the number of pets acquired from animal shelters, which has greatly contributed to a steady decline in the number of companion animals euthanized in these facilities (Rowan & Kartal, 2018).

Humane Communities, a framework defined by the University of Denver's Institute for Human-Animal Connection, promote policies that contribute to sustainable human, animal, and environmental welfare. By taking action to achieve collective welfare, Humane Communities accrue important economic, social, and environmental benefits for their community (Hawes, Ikizler, Loughney, Tedeschi & Morris, 2017). Animal shelters are an important community resource as they serve as a safety net for residents and their companion animals. Animal shelters provide affordable medical care, behavior training, end-of-life care, and relinquishment support to those who can no longer keep their pets. They also provide opportunities for pet owners to purposefully acquire a new pet through adoption.

By implementing Resolution 20091105-040 (also known as the "No Kill Bill"), which requires that no more than 10% of animals in the care of the municipal shelter, Austin Animal Center (AAC), are euthanized, the City of Austin has demonstrated a commitment to improving outcomes for unhoused companion animals (Note: On March 28, 2019, the Austin City Council unanimously agreed to increase the save rate from 90% to 95%). Critical to supporting this ambitious goal in a community that had previously had very high rates of euthanasia has been the allocation of substantially more municipal resources. Further, the development of a network of non-profit shelters in the community, including Austin Pets Alive (APA), support the municipal shelter by caring for animals that are particularly at risk for euthanasia at the municipal shelter.

---

<sup>1</sup> Address correspondence to Kevin Morris at kevin.morris@du.edu.

Continuing to increase the rates of adoption from animal shelters in the Austin area will support AAC, APA, and the other shelter organizations' efforts to minimize their rates of euthanasia.

Understanding what factors inform residents' decisions to acquire a new pet can benefit shelter organizations in developing policies and procedures that will increase their rates of adoption. Yet, little research exists concerning how and why an animal is chosen for adoption from a shelter. One study analyzing factors contributing to adopters' selection of pets within an animal shelter determined that the animal's appearance, behavior with adopter, and personality were important factors influencing adoption for all species and age groups of pets (Weiss, Miller, Mohan-Gibbons, & Vela, 2012). Additionally, adopters valued the information they received from shelter staff and found significance in getting to interact with the animal rather than simply viewing the potential pet (Weiss, Miller, Mohan-Gibbons & Vela, 2012).

There is also limited academic literature on the reasons pet owners choose to acquire their pets from a shelter over other sources. Bir, Widmar, and Croney (2016) found that the most common reason for acquiring a dog from shelters was because the individuals felt it was the right thing to do. Thirty-nine percent of the participants in the study had previously adopted from an animal shelter or rescue organization (Bir, Widmar, & Croney, 2016). Certain human characteristics may also influence where people choose to acquire their pets. Specifically, there is evidence that women are more likely to show a preference for dogs from a shelter or rescue (Bir, et al., 2016; Reese, Skidmore, Dyar & Rosenbrook, 2017), and younger people tend to favor adoption more than older individuals (Woodhead, Feng, Howell, Ruby, & Bennett, 2018). Multiple studies found that dog owners with a college degree more often adopted from shelters than dog owners with lower levels of education (Bir, et al., 2016; Reese, et al., 2017).

Yet, there are a number of barriers experienced by prospective pet owners when they consider adopting from shelters. One study found that a significant proportion of prospective dog owners perceived that dogs from animal shelters commonly have behavior issues (Mornement, Coleman, Toukhsati & Bennett, 2012). Kilmer and Greenbaum (2018) identified a number of issues experienced by aspiring dog owners at shelters, including a delayed response after contacting the shelter, online information of the pets available at the shelter was not current, and there were issues with the application process required by the shelter before acquisition. Shelters may also not have the ideal pet that someone is looking to own. Specifically, a common reason cited in the literature for not wanting to adopt from a shelter is that future dog owners want a purebred dog, and they believe that shelters do not have their breed preference (Maddalena, Zeidman, & Campbell, 2012; Bir, et al., 2016). Additionally, several studies have found that people tend to have a preference for puppies (King, Marston, & Bennett, 2009; Diverio, Boccini, Menchetti, & Bennett, 2016), but shelters are housing a growing population of senior animals (Olson & Moulton, 1993; Arkow, 1991; Scarlett, Salman, New & Kass, 2002; Hawes, et al., 2018). Overall, more research is needed on the reasons an individual does choose to acquire their next pet from a shelter to better inform shelters in developing policies and programs that promote adoption.

Furthermore, learning about pre-acquisition attitudes and expectations of pet owners may help reduce the number of pets that are ultimately relinquished or returned to shelter care. Numerous studies have revealed that individuals may relinquish their pet to a shelter when it does not meet their expectations regarding the amount of time and effort caring for a pet demands, the expenses incurred from pet ownership, or the role of the pet in their home (Marston, et al., 2004; Salman, et al., 1998; Kidd, Kidd, & George, 1992).

This pilot study was conducted to expand the understanding of the attitudes informing pet acquisition preferences and the barriers to pet ownership in Austin, TX, specifically by developing and testing a survey instrument to assess sources of pet acquisition. By understanding more about pet acquisition history, pet preference, and social influences, this study can inform the strategies employed by shelters in the Austin area to increase rates of adoption.

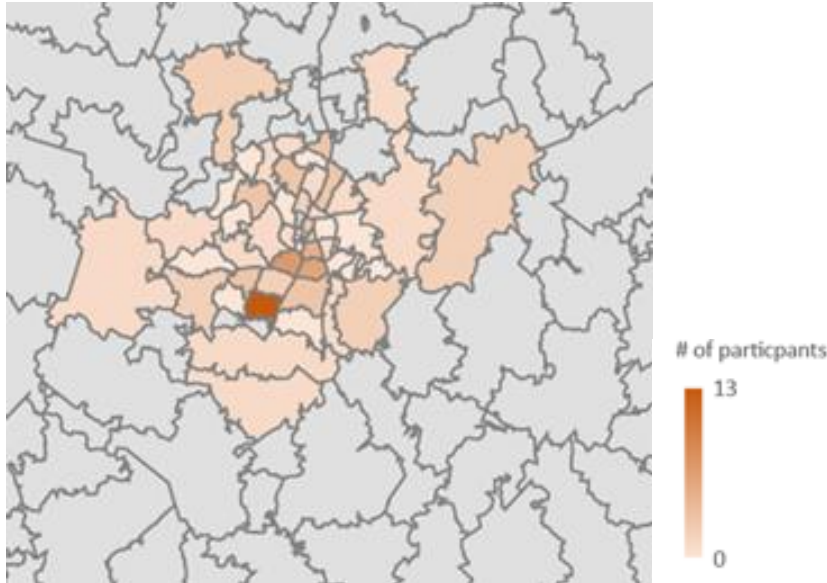
### **Methods:**

A survey instrument, the Pet Acquisition Questionnaire, was developed to assess where participants have obtained pets in the past and their attitudes regarding potential sources of pet acquisition in the future (Appendix A). The survey was developed after a thorough literature review of the existing research on pet acquisition and with input from APA staff. The instrument consists of seven demographic questions and fifteen questions that gather information on the participants' attitudes and behaviors regarding pet acquisition. All questions are multiple choice.

This pilot study of the survey instrument included 86 participants in various locations around Travis County, TX. A research assistant sought participants utilizing a convenience sampling approach once a week for 2-3 hours in a variety of locations around the city that were expected to have a high volume of resident pedestrian traffic. Verbal participant consent was obtained according to a University of Denver Institutional Review Board-approved protocol (DU IRB 1203188-1). The survey consisted of 15 questions that asked respondents to share the methods they prefer to use when acquiring new pets. It also asked individuals to identify if they were interested in obtaining additional pets, and if so, what factors would inform their decision on how they would obtain that pet. Additionally, survey respondents were asked to identify their attitudes towards adopting a companion animal from a shelter or rescue organization. The survey took approximately 1-2 minutes to complete, and there were no incentives offered for those who chose to participate. Responses were recorded on a tablet using a secure data management system, Research Electronic Data Capture (REDCap), hosted at the University of Denver.

With 86 respondents, this study was able to capture portions of residents from the Austin metropolitan area. Out of the 50 zip codes found in the Austin area, the sample included residents from 35 (70%) zip codes ranging from 1 to 13 participants in each one (Map 1) (Table 1).

**Map 1.** Density map of survey participants by Austin and surrounding area zip codes



**Table 1.** Number of participants surveyed from zip codes in the Austin area. Three residents reported zip codes from outside the Austin area.

Number of Participants	Zip Codes Accounted For
1	78610, 78620, 78634, 78640, 78653, 78703, 78719, 78721, 78729, 78735, 78738, 78746, 78750, 78752, 78754, 78756, 78758
2	78617, 78621, 78641, 78722, 78737, 78745, 78757
3	78728, 78730, 78744, 78749, 78751, 78753, 78759
5	78702
6	78741
8	78704
13	78748

## Results

### *Demographics of Survey Participants:*

The demographics of the pilot sample are presented in Table 2. There was balanced representation of average yearly income with 7 (8.1%) respondents earning less than \$23,000, 16

(18.6%) respondents earning \$23,001-\$43,000, 15 (17.4%) respondents earning \$43,001-\$68,000, 19 (22.1%) respondents earning 68,000-\$110,000, and 11 (12.8%) respondents earning more than \$110,000. Fifty-nine (68.6%) participants were female, 58 (67.4%) were ages 18-35, and 58 (67.4%) identified as ethnically white. The majority representation in each of these categories may have skewed the results because research has demonstrated that women and younger individuals are more likely to favor adoption from shelters than their counterparts (Bir, et al., 2016; Reese, et al., 2017; Woodhead, et al., 2018). Those who identify as white have also been shown to own more pets than any other ethnicity (Marsa-Sambola, et al., 2016; Brown, 2003; AVMA, 2018).

**Table 2.** Demographics of Survey Participants (n=86)

Question	Variable	Total Responses	Percentage of Responses
<b>What is your sex?</b>	Male	26	30.2%
	Female	59	68.6%
	Prefer not to respond	1	1.2%
<b>What is your age?</b>	18-34	58	67.4%
	35-49	18	20.9%
	50-64	10	11.6%
<b>What is your ethnicity?</b>	African American	2	2.3%
	American Indian/Alaska Native	1	1.2%
	Asian	2	2.3%
	Latino	19	22.1%
	White/Not Latino	58	67.4%
	Other	4	4.7%
<b>What is your household income?</b>	Less than \$23,000	7	8.1%
	23,001-\$43,000	16	18.6%
	\$43,001-\$68,000	15	17.4%
	\$68,001-110,000	19	22.1%
	More than \$100,000	11	12.8%
<b>What is your current housing situation?</b>	I don't wish to respond	1	1.2%
	I live where I don't have to pay rent or a mortgage	5	5.8%
	Own	24	27.9%
	Rent/Lease with no pet restrictions	27	31.4%

	Rent/Lease with pet restrictions	29	33.7%
<b>What best explains your housing type?</b>	Apartment/Townhouse with a fenced-in dog yard	19	22.1%
	Apartment/Townhouse with no dog yard	20	23.3%
	House with a fenced in yard	42	48.8%
	House with a yard but not fenced in	5	5.8%

### *Pet Acquisition History*

A majority of the sample, 63 (73.3%) participants, are both previous and current pet owners, while 8 (9.3%) of the participants currently own their first pet. Only 4 members (4.7%) of the sample reported they have never had a pet. Most participants reported owning only one pet at a time (Table 3). For example, 12 (66.7%) participants who were cat owners at one point stated they only have owned one cat, and 42 (65.6%) dog owners revealed that they only have one dog. Although over 50% of the participants acquired their pets from an animal shelter, only 24 (20.9%) participants adopted from a local shelter in Austin. Just over a third of the sample, 40 (34.8%) participants, stated that they obtained their pets online, from a friend, or found their pet as a stray (Table 3).

**Table 3.** Pet Acquisition History (n=86)

Question	Variable	Total Responses	Percentage of Responses
<b>Status of Pet ownership?</b>	Never had a pet <i>(Neither previous nor current pet owner)</i>	4	4.7%
	First pet <i>(Not previous pet owner, but current pet owner)</i>	8	9.3%
	Previously had a pet, but not current	11	12.8%
	Currently have a pet and previously have had one	63	73.3%
<b>What species of pet did/do you own?</b>	Cat, Dog, and other	1	1.2%
	Cat and Dog	11	12.8%
	Cat and Other	1	1.2%

	Cat only	5	5.8%
	Dog and Other	4	4.7%
	Dog only	48	55.8%
	Other only	1	1.2%
	No pets currently	15	17.4%
<b>How many cats did/do you own? (n=18)</b>	1 cat	12	66.7%
	2 cats	4	22.2%
	3 cats	1	5.6%
	4 or more cats	1	5.6%
<b>How many dogs did/do you own? (n=64)</b>	1 dog	42	65.6%
	2 dogs	13	20.3%
	3 dogs	7	10.9%
	4 or more dogs	2	3.1%
<b>Where have you gotten your pet(s) in the past? (n=115)</b>	Local shelter <i>(Austin Shelter: APA, AAC, AHS)</i>	24	20.9%
	Other shelter <i>(Not in Austin)</i>	36	31.3%
	Online	8	7.9%
	Family/Friend	16	13.9%
	Found as a Stray	16	13.9%
	Breeder	11	9.6%
	Other	4	3.4%

### *Future Pet Acquisition*

Forty-six (53.5%) participants indicated they would be interested in owning a pet in the future, while only 17 (19.8%) stated they were not interest in owning a pet in the future (Table 4). Twenty-three (26.7%) participants responded “maybe” or “unsure” and cited various reasons for their hesitation. The proportion of the sample that showed a definite or potential interest in owning a pet were asked to select from a list their preferences in animal type, breed, and size for future pet acquisition. Among those who were interested in owning cats in the future, 4 (40%) respondents indicated they have a breed preference. This was only slightly less than for those interested in acquiring dogs, where 25 (47.2%) respondents indicated having a preference in dog breed. Forty (76.9%) potential future dog owners indicated they have a preference in the size of their dog. An overwhelming majority, 81 (95.3%) participants, indicated they would be interested in adopting a future pet from an animal shelter or rescue organization.

**Table 4.** Future Pet Acquisition

Question	Variable	Total Responses	Percentage of Responses
<b>Would you pet interested in owning a pet/another pet? (n=86)</b>	Maybe <i>(Housing restriction, Finances, Inadequate lifestyle, Don't need more pets, My current pet(s) limits me from having another pet)</i>	21	24.4%
	No	17	19.8%
	Yes	46	53.5%
	Unsure <i>(Not enough time, other)</i>	2	2.3%
<b>Preference of breed? (n=63)</b>	Preference Cat <i>(Pure Breed only, Mixed Breed only)</i>	4	40%
	No Preference for Cat breed	6	60%
	Preference Dog <i>(Pure breed only, mixed breed only)</i>	25	47.2%
	No Preference for Dog breed	28	52.8%
<b>Preference of dog size? (n=52)</b>	Small	5	9.6%
	Small or Medium	1	1.9%
	Medium	13	25.0%
	Medium or Large	7	13.5%
	Large	14	26.9%
	No Preference for Dog size	12	23.1%
<b>No preference of species, breed or size? (n=12)</b>	No Preference Species/Breed/Size <i>(Dog, Cat, Pure or Mixed Breed, Small, Medium, Large dog)</i>	12	9.4%
<b>Would you adopt a pet in the future from an animal shelter or rescue group? (n=86)</b>	Yes	81	95.3%
	No	2	2.4%
	Maybe	2	2.4%



<b>Why would you adopt from an animal shelter or rescue group rather than getting your pet from another source? (n=87)</b>	I prefer to get my pets from a shelter	19	21.8%
	I want to help homeless pets	25	28.7%
	Adopting from shelters make me happy	4	4.6%
	Shelters are a clean environment	1	1.1%
	Shelters are an accessible location	1	1.1%
	I've had a positive experience at shelters in the past	4	4.6%
	I want to make space for another animal	21	24.2%
	Other	6	6.9%
	I don't wish to respond	4	4.6%
	I would not adopt from shelter ( <i>Children or Lifestyle</i> )	2	2.4%

## Discussion

While the pilot study of the Pet Acquisition Questionnaire was able to gather data on past and future sources of pet acquisition, the size of the obtained sample limits analyses to descriptive statistics. Despite more than 25 hours in the field soliciting participation, only 86 surveys were completed. Future participation rates could be improved by several means, including providing an incentive, clarifying that participation does not lead to a solicitation, including door-to-door surveying in areas with underrepresented demographics, identifying additional surveying opportunities ( e.g., outdoor events), and increasing the time and/or number of surveyors devoted to the project. Despite the relatively small sample size, the instrument appears to work well based on broad use of available answers by participants. Additionally, the demographic data questions had a high response rate, with very few “prefer not to answer” responses.

Results from this pilot study of Austin residents’ attitudes about pet acquisition shared some similarities and some differences with previous research conducted on this topic. There are two existing comprehensive data sets on the rates of pet ownership retrieved from online surveys conducted by the American Pet Products Association (APPA) and the American Veterinary Medical Association (AVMA). The APPA (2018) survey found that in 2016 the national pet ownership rate was 68% of U.S. households, while the AVMA (2018) found a lower rate of 58% in that same year. The findings from the present study revealed that pet ownership may be much more common in the city of Austin, with 71 respondents (82.6%) currently owning a pet. However, like the surveys conducted online, the estimates are likely skewed significantly higher by a bias toward pet owner participation.

Previous research also shows that previously owning a pet and positive past experiences with pets are predictors of future pet ownership (Westgarth, et al., 2010; Tesform & Birch, 2013). APPA (2018) noted that 85% of current dog owners and 93% of current cat owners previously owned a pet. The findings from the current pilot study are consistent with these findings given that 63 (73.3%) respondents both currently have and have previously owned pets.

Of the 18 respondents with cats in this pilot study, 12 (66.7%) had one cat, and out of the 64 respondents with dogs, 42 (65.6%) had one dog. These data are considerably higher than the APPA survey that found that only 38% of U.S. households have at least one cat and 48% has at least one dog. They also found that 32% of current pet owners have a combination of dogs and cats. This is nearly double the Austin sample in our study where we found only 11 (15.5%) respondents who had both types of pets. The low number of respondents in this survey who had multiple pets was also contradictory to the AVMA (2018) survey, which found that over 60% of pet-owning households owned more than one pet, 40% of pet owning households owned more than one type of pet, and 24.7% had a combination of pet species.

When addressing where pets are obtained, 60 (52.2%) pilot survey participants indicated that they had adopted their pet(s) either from a local Austin animal shelter or a shelter elsewhere. This rate was higher than other surveys conducted nationally, with APPA (2018) identifying that 22% of dogs and 28% of cats were rescued from shelters, and AVMA (2018) finding that 28% of dogs and 31% of cats were acquired from an animal shelter or rescue organization. An additional study by the American Humane Association (AHA, 2012) found that 25% of dog owners and 18% of cat owners adopted their pet from a shelter. Over half of the sample of Austin residents obtained their pet from a shelter, however only 24 (20.9%) participants obtained their animal from an Austin shelter, demonstrating that there is more room for increasing awareness of local shelters and rescues as sources of pets.

Nearly 47.8% of Austin residents that participated in the pilot study acquired their pets through services besides animal shelters, with approximately 10% from a breeder, 8% from a source found online, 14% from a family/friend, and 14% found as a stray. While this is lower than the percentage reported by the national surveys (AHA, 2012; APPA, 2016; AVMA; 2017), it still represents a substantial opportunity for animal shelters and rescue organizations to expand their market for dog and cat adoption.

In order to better understand which factors inform Austin residents' pet acquisition behaviors, this pilot study examined attitudes toward shelters and rescue groups. In one study 60% of participants considered a shelter as a good source for pet acquisition, but only about 40% actually acquired their pet from a shelter (Garrison & Weiss, 2015). This same study found that a potential adopter's motive to find a companion animal was based on the diversity of shelter animal options rather than the specific shelter itself (Garrison & Weiss, 2015). The current study found similar results; of the 81 (95.3%) participants who said they would adopt from a shelter again, 65 (76.5%) responded that they would adopt from an animal shelter or rescue group in the

future rather than getting their pet from another source due to the animal itself (I prefer to get pets from a shelter; I want to help homeless pets; I want to make room for another animal) while only 10 (11.5%) respondents would adopt from an animal shelter or rescue group due to the actual animal shelter available to them (the shelters are in an accessible location; shelters are a clean environment; I've had a positive experience with shelters in the past). This implies that an individual may go elsewhere for the pet they are in search of if the shelter cannot meet the client's preferences. Therefore, it is important for shelters to promote the variety of animals available for adoption. Reese and colleagues (2017) recommend for shelters to advertise the invisible cost benefits that one receives from a shelter versus a breeder. Shelters may seem more attractive if people know that shelter animals are commonly spayed/neutered, vaccinated, and have started behavioral training. The percentage of residents looking elsewhere to obtain a pet may be reduced with more awareness of services offered to community members who adopt from a local animal shelter, such as low-cost veterinary care and lifetime behavior support.

In an assessment to determine individual's capacity and desire to obtain another pet, the pilot study found that 53.5% of respondents strongly affirmed wanting to acquire a pet by answering "Yes," and 46.5% responded "Maybe," "No," or "Unsure." Upon answering questions pertaining to future pet acquisition, 81 (95.3%) Austin residents said that they would consider obtaining their next pet from a shelter or rescue organization, whereas on the AHA (2012) survey, only 56% of dog owners and 64% of cat owners said they would obtain their next pet from a shelter or rescue organization. There is currently no research that explores how people feel about owning multiple pets or their capacity for obtaining another pet, which limits shelters from understanding the total capacity of their community for adoption. Yet, 23.9% of the sample recorded that they don't need more pets, and only 1.5% stated their current pet limits them from having another. The other reasons cited most frequently for hesitation in future pet acquisition were finances (22.4%), not enough time (19.4%), and housing restrictions (13.4%).

The findings in this pilot study are consistent with other research when looking at what is preventing residents from obtaining another pet. The AHA (2012) survey found that 59% of responses from dog owners and 49% of responses from cat owners cited general or veterinary expenses as a major hindrance of acquiring another pet. Similarly, the APPA (2018) discovered that 31% of the U.S. population considered the cost for care as a drawback to pet ownership. Additionally, 27% of responses from dog owners and 21% of responses from cat owners in the AHA (2012) survey said they didn't have time for another pet. The APPA (2018) survey found 85% of pet owners believed people should only have pets if they have enough time to spend with the pet, which explains why many individuals reported it as a barrier they experienced to future pet acquisition in this study. Furthermore, another study found that pet owners are more likely to live in a house than rent an apartment (Müllersdorf, Granstrom, Sahlqvist & Tillgren, 2010). This may be explained by Carlisle-Frank, Frank, and Nielsen (2005) findings that Americans have difficulty finding pet-friendly housing. This study also revealed that over half of the participants that did not have pet-friendly housing indicated that they would probably have a pet if they were

allowed to (Carlisle-Frank, et al., 2005). The cost of care of companion animals, amount of time spent taking care of pets, and housing issues related to moving and landlord restrictions, all identified as barriers of pet ownership, are also recognized as contributors to pet relinquishment, thereby highlighting the importance for shelters and rescues to assist clients in making appropriate choices with accurate information (Dolan, et al., 2015; Shore, Petersen, & Douglas, 2003; Salman, et al., 1998).

The City of Austin is working to improve the pet friendliness of the city. For example, the city has a Fencing and Dog House Assistance Program that assists owners with building property fences to create enclosed yards (AustinTexas.gov, 2018). This program may have contributed to the large response rate of participants in this study stating that their current housing is conducive of owning a dog because their home contains a fenced in yard (48.8%) or their apartment has a fenced space for dogs to play (22.1%). However, 29 (33.7%) respondents revealed that their apartment had a lease with pet restrictions related to breed/size, which reveals that the city still has room for improvement in becoming more “pet friendly.” These restrictions limit individuals’ ability to choose the pet they desire, which may prevent people from obtaining a pet because, within this survey, 25 (47.2%) responses had a breed preference and 40 (76.9%) responses had a preference in regard to the size of their desired dog. Large dog size was chosen 14 (26.9%) times, which contradicts previous research findings that small dogs are more often preferred by potential adopters (Sietou, et al., 2014), have a shorter length of stay at animal shelters (Brown, Davidson, & Zuefle, 2013), and are correlated with more successful adoptions (Posage, Bartlett, & Thomas, 1998). However, it is important to explore this finding in more depth considering that housing restrictions may place barriers in allowing people to own the large size dogs they prefer.

## **Conclusions and Future Directions**

The Pet Acquisition Questionnaire is a useful tool for assessing a community’s attitudes towards obtaining new pets. While this pilot study provides initial insights into the attitudes of Austin residents, a larger sample size would allow for more rigorous validation analysis (e.g., Cronbach’s alpha) of the instrument and support its development into a tool that can be applied in other communities. An increased sample size should be sought using some of the methods described above, such as providing incentives for participation or seeking participants by going door-to-door. This tool could also be improved by adding additional questions that assess other factors that might inform pet acquisition behaviors, such as the participants’ awareness of services provided by local animal welfare organizations and/or the barriers they have experienced to accessing pet supportive services, such as behavioral training and affordable veterinary care. Utilizing this tool in other communities across the U.S. could support in identifying regional similarities and differences in pet acquisition capacity, which would greatly advance the current academic discussion on this topic.

Animal shelters can use information gathered from studies like this one to understand marketing trends and to identify those willing to adopt from a shelter before acquiring their pet from

elsewhere. Shelters can also use this data to inform the capacity for future pet ownership and the threshold limit at which the community may not be capable of adopting pets at the same high rate as before. Discovering new techniques and understanding community needs locally and nationally have the power to increase residents' access and awareness to adoption opportunities when obtaining their next pet. With the use of additional studies, this knowledge can substantially move the discussion forward about pet owning trends and inventory regarding animal welfare policy within communities actively participating in helping homeless pets.

## References:

- Arkow, P. (1991). Animal control laws and enforcement. *Journal of the American Veterinary Medical Association*, 198(7), 1164-1172.
- American Humane Association. (2012). *Keeping pets (dogs and cats) in homes: Phase I: Reasons for not owning a dog or cat*. Retrieved from <https://www.americanhumane.org/app/uploads/2016/08/aha-petsmart-retention-study-phase-1.pdf>
- American Pet Products Association. (2018). National Pet Owners Survey. Retrieved from [https://americanpetproducts.org/Uploads/MemServices/GPE2017\\_NPOS\\_Seminar.pdf](https://americanpetproducts.org/Uploads/MemServices/GPE2017_NPOS_Seminar.pdf)
- American Veterinary Medical Association. (2018). *AVMA Pet ownership & demographics sourcebook [2017-2018 Edition]*. Schaumburg, IL: American Veterinary Medical Association.
- AustinTexas.Gov. (2018). DontdroptheballATX. Retrieved from <http://www.austintexas.gov/page/dontdroptheballatx>
- Bir, C., Widmar, N. J. O., & Croney, C. C. (2016). *Public perceptions of dog acquisition: Sources, rationales and expenditures*. West Lafayette, IN: Center for Animal Welfare Science at Purdue University.
- Brown, S. E. (2002). Ethnic variations in pet attachment among students at an American school of veterinary medicine. *Society & Animals*, 10(3), 249-266.
- Brown, W. P., Davidson, J. P., & Zuefle, M. E. (2013). Effects of phenotypic characteristics on the length of stay of dogs at two no kill animal shelters. *Journal of Applied Animal Welfare Science*, 16(1), 2-18.
- Carlisle-Frank, P., Frank, J. M., & Nielsen, L. (2005). Companion animal renters and pet-friendly housing in the US. *Anthrozoös*, 18(1), 59-77.
- Clancy, E. A., & Rowan, A. N. (2003). Companion animal demographics in the United States: A historical perspective. In D.J. Salem & A.N. Rowan (Eds.), *The state of the animals II: 2003* (pp. 9-26). Washington, DC: Humane Society Press.
- Diverio, S., Boccini, B., Menchetti, L., & Bennett, P. C. (2016). The Italian perception of the ideal companion dog. *Journal of Veterinary Behavior*, 12, 27-35.

- Dolan, E.D., Scotto, J., Slater, M., & Weiss, E. (2015). Risk factors for dog relinquishment to a Los Angeles municipal animal shelter. *Animals*, 5(4), 1311-1328.
- Fantuzzi, J. M., Miller, K. A., & Weiss, E. (2010). Factors relevant to adoption of cats in an animal shelter. *Journal of Applied Animal Welfare Science*, 13(2), 174-179.
- Garrison, L., & Weiss, E. (2015). What do people want? Factors people consider when acquiring dogs, the complexity of the choices they make, and implications for nonhuman animal relocation programs. *Journal of Applied Animal Welfare Science*, 18(1), 57-73.
- Gourkow, N., & Fraser, D. (2006). The effect of housing and handling practices on the welfare, behaviour and selection of domestic cats (*Felis sylvestris catus*) by adopters in an animal shelter. *Animal Welfare*, 15(4), 371-377
- Hawes, S., Ikizler, D., Loughney, K., Tedeschi, P., & Morris, K. (2017). Legislating components of a humane city: The economic impacts of the Austin, Texas "No Kill" resolution (City of Austin Resolution 20091105-040). *Animal Law and Legislation Collection*. 1.
- Kidd, A. H., Kidd, R. M., & George, C. C. (1992). Successful and unsuccessful pet adoptions. *Psychological Reports*, 70(2), 547-561.
- Kilmer, V. & Greenbaum, R. (2018, July 19). *Barrier breakdown: Examining barriers to adoption*. Presentation at the Best Friends Animal Society Conference, Los Angeles, CA. Retrieved from [https://s3fs.bestfriends.org/s3fs-public/Thurs%20Barrier%20breakdown%20Kilmer%20Greenbaum.pdf?xwchXDfk7rG67bY4ZdF6P3fEVzTqCzg8&\\_ga=2.260295821.1069092170.1562075071-2014690391.1562075071](https://s3fs.bestfriends.org/s3fs-public/Thurs%20Barrier%20breakdown%20Kilmer%20Greenbaum.pdf?xwchXDfk7rG67bY4ZdF6P3fEVzTqCzg8&_ga=2.260295821.1069092170.1562075071-2014690391.1562075071)
- King, T., Marston, L. C., & Bennett, P. C. (2009). Describing the ideal Australian companion dog. *Applied Animal Behaviour Science*, 120(1-2), 84-93.
- Kuhl, C. (2017). *An investigation of pedigree dog breeding and ownership in the UK: experiences and opinions of veterinary surgeons, pedigree dog breeders and dog owners* (Doctoral dissertation). University of Nottingham, Nottingham, UK.
- Maddalena, S. D., Zeidman, S., & Campbell, K. (2012, November). An empirical look at public perceptions and attitudes about pet adoption and spay/neuter. Paper presented at the Society of Animal Welfare Administrators Conference, St. Petersburg, FL.
- Marsa-Sambola, F., Williams, J., Muldoon, J., Lawrence, A., Connor, M., Roberts, C.,...& Currie, C. (2016). Sociodemographics of pet ownership among adolescents in Great Britain: Findings from the HBSC Study in England, Scotland, and Wales. *Anthrozoös*, 29(4), 559-580.
- Marston, L. C., Bennett, P. C., & Coleman, G. J. (2004). What happens to shelter dogs? An analysis of data for 1 year from three Australian shelters. *Journal of Applied Animal Welfare Science*, 7(1), 27-47.
- Mornement, K., Coleman, G., Toukhsati, S., & Bennett, P. (2012). What do current and potential Australian dog owners believe about shelter practices and shelter dogs? *Anthrozoös*, 25(4), 457-473.

- Murray, J. K., Browne, W. J., Roberts, M. A., Whitmarsh, A., & Gruffydd-Jones, T. J. (2010). Number and ownership profiles of cats and dogs in the UK. *Veterinary Record*, *166*(6), 163-168.
- Olson, P. N., & Moulton, C. (1993). Pet (dog and cat) overpopulation in the United States. *Journal of Reproduction and Fertility*, *47*(Suppl.), 433-438.
- Posage, J. M., Bartlett, P. C., & Thomas, D. K. (1998). Determining factors for successful adoption of dogs from an animal shelter. *Journal of the American Veterinary Medical Association*, *213*(4), 478-482.
- Protopopova, A., Mehrkam, L. R., Boggess, M. M., & Wynne, C. D. L. (2014). In-kennel behavior predicts length of stay in shelter dogs. *PloS ONE*, *9*(12), e114319.
- Reese, L. A., Skidmore, M., Dyar, W., & Rosebrook, E. (2017). No dog left behind: A hedonic pricing model for animal shelters. *Journal of Applied Animal Welfare Science*, *20*(1), 52-64.
- Rowan, A., & Kartal, T. (2018). Dog population & dog sheltering trends in the United States of America. *Animals*, *8*(5), 68.
- Royal Society for the Prevention of Cruelty to Animals. (2012). *Do puppies have secret powers: Understanding the irrational behavior of the puppy buying publics*. London, UK: Royal Society for the Prevention of Cruelty to Animals.
- Salman, M. D., New, J. G., Jr., Scarlett, J. M., Kass, P. H., Ruch-Gallie, R., & Hetts, S. (1998). Human and animal factors related to relinquishment of dogs and cats in 12 selected animal shelters in the United States. *Journal of Applied Animal Welfare Science*, *1*(3), 207-226.
- Scarlett, J. M., Salman, M. D., New, J. G., & Kass, P. H. (2002). The role of veterinary practitioners in reducing dog and cat relinquishments and euthanasias. *Journal of the American Veterinary Medical Association*, *220*(3), 306-311.
- Shannon-Missal, L. (2015). More than ever, pets are members of the family. Retrieved from <https://theharrispoll.com/whether-furry-feathered-or-flippers-a-flapping-americans-continue-to-display-close-relationships-with-their-pets-2015-is-expected-to-continue-the-pet-industrys-more-than-two-decades-strong/>
- Shore, E. R., Petersen, C. L., & Douglas, D. K. (2003). Moving as a reason for pet relinquishment: A closer look. *Journal of Applied Animal Welfare Science*, *6*(1), 39-52.
- Sietto, C., Fraser, I. M., & Fraser, R. W. (2014). Investigating some of the factors that influence “consumer” choice when adopting a shelter dog in the United Kingdom. *Journal of Applied Animal Welfare Science*, *17*(2), 136-147.
- Tesfom, G., & Birch, N. J. (2013). Does definition of self predict adopter dog breed choice? *International Review on Public and Nonprofit Marketing*, *10*(2), 103-127.
- Weiss, E., Miller, K., Mohan-Gibbons, H., & Vela, C. (2012). Why did you choose this pet? Adopters and pet selection preferences in five animal shelters in the United States. *Animals*, *2*(2), 144-159.

- Wells, D. L., & Hepper, P. G. (2000). The influence of environmental change on the behaviour of sheltered dogs. *Applied Animal Behaviour Science*, 68(2), 151-162.
- Westgarth, C., Heron, J., Ness, A. R., Bundred, P., Gaskell, R. M., Coyne, K. P.,...& Dawson, S. (2010). Family pet ownership during childhood: Findings from a UK birth cohort and implications for public health research. *International Journal of Environmental Research and Public Health*, 7(10), 3704-3729.
- Woodhead, J. K., Feng, L. C., Howell, T. J., Ruby, M. B., & Bennett, P. C. (2018). Perceptions of dog breeding practices, breeding dog welfare and companion dog acquisition in a self-selected sample of Australian adults. *Animal Welfare*, 27(4), 357-368.