# Reasons for Relinquishment of Companion Animals in U.S. Animal Shelters: Selected Health and Personal Issues

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In personal interviews, people surrendering their dogs and cats to 12 animal shelters in 4 regions of the country discussed their reasons for relinquishing their companion animals and answered questions about their own characteristics and those of their pet. The interviews identified 71 reasons for relinquishment. Personal issues lead the class of reasons for relinquishment of cats and ranked 3rd among those given for relinquishment of dogs. The top 3 health and personal issues cited for giving up cats were allergies of a family member to cats, owner's personal problems, and a new baby. For dogs, the top 3 reasons cited were lack of time for the dog, owner's personal problems, and aller-

gies. Analysis of these health and personal issues suggests that education and counseling before and after acquisition of a pet, as well as the availability of temporary accommodations for pets during times of personal crisis, may reduce relinquishments.

Understanding why keepers of companion animals surrender dogs and cats to animal shelters is a necessary step toward designing approaches to minimize relinquishments. In a large multicenter study conducted in 1995–1996, data were collected from 12 animal shelters in four regions of the United States with the objectives of describing the characteristics of (a) dogs and cats relinquished to shelters (i.e., demographic, animal care, acquisition-associated, household, and behavioral characteristics), (b) the individuals who are relinquishing the animals (i.e., demographics and knowledge of dog and cat husbandry), and (c) the nature and frequency of reasons for relinquishment that people reported as they surrendered animals (Salman et al., 1998).

A total of 71 reasons and their frequencies were identified. Similar causes of surrender were combined into 12 larger classes for further evaluation (Salman et al., 1998). Of the 71 reasons cited, 10 were broadly categorized as selected health and personal issues (HPIs). They included divorce, the owner's death, pregnancy, the birth of a child, personal problems, the need to travel, allergies in the family, the lack of time for an animal, incompatibility between a pet and child, and having received a pet as an unwanted gift. Although many of these events and circumstances are commonly part of human experience, educating, counseling, or identifying alternative strategies may modify the response of relinquishing a pet.

Because HPIs are an important consideration in pet-ownership decisions, this article describes the demographic and household characteristics of people who relinquish dogs and cats for health and personal reasons and summarizes the demographic attributes of their pets.

#### **METHOD**

Between February 1995 and April 1996, trained interviewers who used a standardized form interviewed people that relinquished pets to animal shelters. Twelve animal shelters in six states were sampled. Salman et al. (1998) described the details of the design and the overall results. Briefly, people were asked about their pet's demographic characteristics, training, source of acquisition, length of being with owner, reproductive history, and behavior. People were also queried about their own demographic characteristics, knowledge of basic canine and feline husbandry, other animals in their household during the past year, as well as their reasons for relinquishing the pets. Owners could report up to five reasons for turning in their animals to a shelter.

To evaluate general knowledge about dogs and cats, relinquishers were asked to identify 11 statements regarding basic dog and cat husbandry as *true*, *false*, or *don't know*. By scoring correct answers as 1 and incorrect or *don't know* answers as 0, owners could achieve a maximum score of 11. Only those animals whose relinquishers were interviewed and were knowledgeable about them were included in this report.

Data were stratified by species (dog or cat) and by individual or litter. Because the study was descriptive, few statistical comparisons were made. When proportions were compared, the chi-square test of independence was used (Snedecor & Cochran, 1989). When the expected values in  $2 \times 2$  tables were 5 or less, Fisher's exact test was employed. In light of multiple comparisons, p < .01 was considered significant.

## **RESULTS**

For cats, HPIs were the leading class of causes of surrender—more frequent than all behavioral categories combined. For dogs, these issues ranked third, following behavioral and housing concerns issues (Table 1). The 554 dogs relinquished for HPIs were from 520 households. A total of 384 households relinquished the 488 cats.

#### **Human Characteristics**

With a few exceptions, the demographic characteristics of people submitting pets for HPIs were similar to those of all relinquishers (Salman et al., 1998). Females were slightly more likely to relinquish dogs (53.2%) as compared with all relinquishers (48.9%) and were somewhat less likely to relinquish cats (54.1%) as compared with all relinquishers (59.9%). Fewer people citing HPIs had an eighth-grade education or less (2–3% of dog and cat relinquishers) as compared to all people surrendering animals (10–12%). Fewer people citing HPIs had an income level of less than \$27,500 per year (40–43%) compared with all relinquishers (44–49%). There were no statistical differences in the demographic characteristics of people relinquishing individual dogs versus those relinquishing cats for HPIs.

## Household Characteristics

Animal movement in and out of households, particularly with regard to the species being surrendered, was high. More animals were added to than left these house-

TABLE 1
Frequency of Classes of Reasons Given at the Time of Relinquishment of Dogs and Cats to 12 Animal Shelters in the United States, 1995–1996

	Do	ogs <sup>a</sup>	Cats <sup>b</sup>		
Reason Class	n	%°	n	%°	
Aggression toward people	211	10.3	68	5.0	
Aggression to another animal	153	7.5	83	6.1	
Nonaggression behavioral problem(s)	603	29.5	283	20.8	
Request for euthanasia	362	17.7	157	11.5	
Animal's health	167	8.2	78	5.7	
Animal characteristics (not behavioral or medical)	91	4.5	25	1.8	
Human housing issues	622	30.4	371	27.3	
Household animal population	139	6.8	228	16.8	
Human health and personal issues	554	27.1	488	35.9	
Human preparation or expectation	286	14.0	207	15.2	

Note. Litters are not included in data.

holds in the year preceding the relinquishment. Among households relinquishing dogs for HPIs, 10.8% had dogs leave, and 50.6% had added one or more dogs in the previous year. Among households adding dogs, the added dogs were most commonly acquired from friends (36.7%), as well as from shelters (22.4%) or as strays (10.6%). Slightly fewer cats (6.5%) left households with HPIs, and considerably fewer (4.5%) were added. Among cat-relinquishing households for HPIs, a similar pattern was evident. A total of 10.6% households had cats leave, and 42.8% added at least one cat during the same period. In households adding cats, the most common sources of cats were strays (23.8%), friends (20.0%), shelters (12.5%), and family members (10.1%). Fewer dogs (6.9%) left households with HPI, and fewer still (3.7%) were added.

Because the questionnaire requested the number of animals added during the past year including the animal being surrendered, we also looked at households in which the animal surrendered was owned for more than a year. Among these households, 73% of dog-relinquishing households (67.3% of cat-relinquishing households) had added another dog or cat, respectively, in the previous year, further emphasizing the high frequency of animal movement in these households.

Only 1% to 3% of households with HPIs had taken other dogs or cats to shelters in the past year, but this represented 11.8% of dogs leaving dog-relinquishing households and 18.4% of cats leaving cat-relinquishing households. Less than 5% of households with HPIs had dogs or cats euthanized, die, or disappear during the same period.

 $<sup>^{8}</sup>n = 2045$ .  $^{6}n = 1361$ .  $^{6}$ Percentage of animals with at least one reason in each class. Each animal may have had up to five reasons for relinquishment.

Despite citing at least one health and personal reason, approximately 17% of households had one or more other dogs, cats, or both remaining at home. In addition to HPI reasons for relinquishment, more than 33% of people with other dogs at home reported a nonaggressive behavioral problem in the dog surrendered. Among people relinquishing cats and having another cat at home, 38.8% reported too many animals at home as another reason for relinquishment.

## Knowledge

When knowledge about basic husbandry was assessed using 11 true or false statements (maximum score = 11), both dog and cat relinquishers with HPI had median scores of 7. People relinquishing dogs were least knowledgeable about certain aspects of canine and feline husbandry:

- Approximately 43% did not realize that dogs experience estrus two times yearly.
- 2. Only slightly more than 17% knew that cats were polyestrous.
- 3. Approximately 61% believed or were not sure whether female dogs or cats were better off if they had at least one litter before spaying.
- 4. Nearly 41% did not know that cat behavior could be affected by the number of other cats in a home.
- 5. More than 52% believed that animals misbehaved to spite their owners.

Dog owners (93.8%), however, were aware that the annual cost of pet ownership can exceed \$100. However, even people with HPIs that relinquish cats were largely unaware that cats are seasonally polyestrous (only 19.9% answered correctly), and similar to those relinquishing dogs, half believed that dogs and cats act out of spite. In addition, 54.1% did not know that dogs come into season twice a year, and 59.2% either thought, incorrectly, that dogs and cats should be bred at least once before spaying or just did not know the answer. More cat than dog owners (56.4%) understood that the number of cats in a household influences behavior, and 88.8% recognized that cat care costs \$100 or more annually.

## Individual Animal Characteristics

Animal demographic characteristics differed little from those of all animals relinquished (Salman et al., 1998). Slightly more male dogs (52.5%) and cats (43.7%) were brought to shelters because of HPIs (Table 2), compared with all other animals relinquished. Almost 64% of male dogs and 42% of male cats surrendered because of HPIs were not neutered. Among females, 58.2% and 45.8% of dogs and

TABLE 2
Demographic Characteristics, Length of Ownership, and Cost of Individual
Dogs and Cats Relinquished for Health and Personal Issues to
12 Animal Shelters in the United States, 1995–1996

	D	ogs	C	ats
Characteristic	$\overline{n}$	%	$\overline{n}$	%
Gender				
Male	180	33.5	86	18.3
Male neuter	102	19.0	119	25.4
Female	149	27.7	121	25.8
Female neuter	107	19.9	143	30.5
Age				
0–4 months	62	11.2	56	11.5
5 months-2 years	304	54.9	227	46.5
3–8 years	150	27.1	165	33.8
> 8 years	38	6.9	40	8.2
Length of ownership				
0–1 month	90	16.2	57	11.7
2–3 months	65	11.7	47	9.6
4–6 months	76	13.7	58	11.9
7–11 months	114	20.6	98	20.1
1–2 years	77	13.9	69	14.1
3–5 years	74	13.4	96	19.7
> 5 years	58	10.5	63	12.9
Cost (\$)				
0	331	59.7	382	78.3
1–50	105	18.9	90	18.4
51-100	54	9.7	11	2.3
101-300	38	6.8	2	0.4
> 300	26	4.7	3	0.6

cats, respectively, remained unneutered. A larger percentage of dogs (66.1%) surrendered because of HPIs was less than 3 years of age compared with all dogs relinquished (56.2%). More than 97% of males (dog and cat) surrendered because of HPIs had reportedly never been mated, and 90.7% and 95.3% of female cats and dogs, respectively, had never had a litter. Among dogs, 31.9% were reportedly purebred compared with 7.8% of cats. These figures are similar to those observed for all animals surrendered.

The top three sources of dogs surrendered because of HPIs were friends (36%), shelters (22.8%), and breeders (10.3%). For cats, sources were friends (34.4%), strays (21.2%), and shelters (15.7%). Most dogs (59.7%) and cats (78.3%) had been acquired at no cost. Among those who had been purchased, however, 11.5% of dogs and 1% of cats had cost more than \$100. More than 60% of the relinquished animals reported were turned in by their owners. A small proportion were

brought in by friends (< 4%), and the remainder were surrendered by other family members. Strays surrendered were excluded from analysis.

The median length of ownership was 7 to 11 months for dogs and cats. A significantly higher proportion of cats than dogs (32.6% and 23.9%, respectively) were owned for 3 or more years.

## Care, Training, and Behaviors

Approximately 60% of dogs relinquished because of HPIs had received some training by a family member. Another 13.7% of dogs were reported to have been trained when the relinquishing owner first acquired the animal, but only 3.4% of these animals had been taken to obedience classes or had received other formal training. Among the dogs, 56.3% spent most or all of their time outdoors. The remainder, 42.7%, were primarily indoor animals. When outside, 81.9% reportedly spent most of the time either in a fenced yard or on a leash. However, 10.7% were rarely or never restrained.

Similar potentially undesirable behaviors were reported for all animals, except that aggressive behaviors, including biting and scratching in cats, and soiling in the house were reported somewhat less frequently among animals surrendered with HPI

## Differences Among Individual Health and Personal Reasons

As shown in Table 3, among dogs surrendered because of HPI, having no time to spend with the animal was the leading reason for surrender (9.4%), followed by

TABLE 3
Frequency of Individual Health and Personal Reasons for Relinquishment Among Individual
Animals Surrendered to 12 Animal Shelters in the United States, 1995–1996

Reason	De	ogs	Cats		
	n	%ª	n	%ª	
Allergies in family	86	4.2	246	18.1	
Child-pet conflict	64	3.1	23	1.7	
No time for pet	193	9.4	41	3.0	
Owner traveling	22	1.1	26	1.9	
Divorce	27	1.3	11	0.8	
New baby	47	2.3	46	3.4	
Owner deceased	21	1.0	21	1.5	
Owner personal problems	154	7.5	106	7.8	
Owner pregnancy	10	0.5	18	1.3	
Unwanted gift	8	0.3	5	0.4	

<sup>&</sup>lt;sup>a</sup>Percentage of all animals relinquished with this as at least one reason for surrender.

personal problems (7.5%), family member allergies (4.2%), and conflicts between a child and dog (3.1%). In contrast, a family member's allergy to cats was the most common health and personal reason for cats (18.1%), followed by personal problems (7.8%), the addition of a new baby (3.4%), and no time for the pet (3.0%). The percentages represent the proportion of all dogs or cats relinquished for this reason. The death of an owner, divorce, pregnancy, the need to travel, and having received a pet as an unwanted gift each accounted for less than 2% of total relinquishments and, collectively, for less than 5% of all dogs and cats turned into these shelters. Also, the conflict between a child and cat (3.1%) was rare as the basis for surrender.

Allergies. Allergies were cited as a reason for relinquishment significantly more frequently for cats (18.1%) than dogs (4.2%). Among cats relinquished for allergies, 13.0% were brought to a shelter within 1 month of joining the household, 35.8% within 6 months, and 54.5% by 1 year. As many as 15% of cats had been owned for more than 5 years when relinquished because of a family member's allergies. In contrast, 23% of dogs were brought to shelters within 1 month of acquisition, 50.6% within 6 months, and 71.3% by 1 year. Only a small proportion (3.5%) of dogs had been owned for more than 5 years when the dogs were surrendered for allergies.

It is interesting that among those relinquishing cats for allergies, 15.4% had dogs and 10.6% still had other cats in the household. Similarly, among families relinquishing dogs for allergies, 11% had other dogs, and 17.1% still had cats at home. These individuals also reported other reasons for relinquishment, including housing issues (30%), nonaggressive behavioral problems (20%), the death of the dog's owner (20%), and, for cats, too many household pets (30%).

Among people reporting allergies to dogs, 21% had less than a high school education compared with 8% that were relinquishing cats. More than twice as many people relinquishing cats (17.5%) than dogs (8.4%) were more than 50 years old, and between 21% and 22% of people reporting allergies to pets were of Hispanic descent, making this the HPI category with the highest proportion of people of Hispanic descent.

No time for pet. Significantly more dogs (9.4%) than cats (3.0%) were relinquished with the reason of "no time for pet" (Table 3). More than 70% of people citing lack of time had dogs 2 years of age or younger, whereas the comparable figure for cat relinquishers was 61%. Almost 70% of dog owners and 58.5% of cat owners had owned their pet for less than 1 year. Animals owned for 3 or more years, however, accounted for 17.6% of dogs and 29.3% of cats surrendered for this reason. Among people citing this reason for dog relinquishment, 17.3% had other

dogs, and 22% had other cats at home. Among those relinquishing cats, 24% had at least one other cat still at home and 17.1% had dogs still at home.

*New baby.* Overall, a new baby accounted for 2.3% and 3.4% of all relinquishments for dogs and cats, respectively. Approximately one third of dogs and cats relinquished for this reason had been acquired during the previous 9 months, and more than 40% had been acquired within 11 months. Among dogs owned for at least 1 year, 25.9% and 29.6% were relinquished also because of an aggression toward people or a nonaggressive behavioral problem, respectively. Among cats, the comparable figures were 4% and 48% for aggressive and nonaggressive behaviors, respectively.

Personal problems. Approximately 8% of all dogs and cats were relinquished because of "personal reasons" that the owner experienced (Table 3). People with less than a ninth-grade education (when considering dogs and cats) and those with advanced graduate degrees (when considering dogs) seemed overrepresented among people citing this reason as compared with other HPIs. Similarly, 25.8% of people with dogs and 43.6% with cats in this category had incomes of less than \$12,999 per year. Almost 8% of people with dogs and 11.3% with cats citing this reason requested euthanasia for their animal, the highest percentage compared with other HPI reasons for cats and second only to the death of an owner for dogs. Also, 18.2% of dogs relinquished because of personal problems had been owned for more than 5 years before relinquishment in contrast to other HPI reasons, in which less than 5% had owned their dogs for more than 5 years.

Conflict with child. Among all animals brought to shelters, conflict with children was reported for 3.1% of dogs and 1.7% of cats (Table 3). These conflicts resulted in relinquishment within 1 month of ownership in 21.9% of dogs and 26.1% of cats, within 6 months for 60% of both dogs and cats, and for more than 80% within 1 year of ownership. Roughly, 80% of these dogs and cats were under 3 years of age. Despite this conflict, more than 95% of these people wanted to see the dog or cat put up for adoption.

Other HPIs. Less than 30 people gave divorce, the death of the owner, pregnancy, owner traveling, or having received a pet as an unwanted gift as a reason for the surrender of dogs and cats in this sample, making it difficult to describe individual human or animal factors associated with these reasons.

Multiple Classes of Reasons for Relinquishment

Owners of 30.1% of dogs and 42.8% of cats relinquished because of health or personal issues stated that an HPI was their only reason for relinquishment; the median number of classes of reasons reported was two. A total of 28% of people citing HPIs also reported a nonaggressive behavioral problem as another reason for relinquishing their dog. Human housing issues, reported for 21.3% of dogs, and poor preparations and inappropriate expectations were cited for 13.5% of dog relinquishments as the other most common classes of reasons cited with HPIs. People surrendering cats because of HPIs also reported human housing issues (18.9%), too many animals in the household (11.3%), nonaggressive behavioral problems (11.1%), and inappropriate expectations (10.2%) as other reasons for relinquishment.

Individuals reporting allergies reported a median of one reason for relinquishment, whereas those with personal problems, no time, child conflicts, and new babies reported a median of two reasons. A nonaggressive behavioral problem, housing issue, or inappropriate expectation was the most common other class of reasons also cited with individual reasons of HPIs, with the exception of child–pet

TABLE 4

Percentage of Other Classes of Reasons Also Given Among

People Citing Individual HPIs for Relinquishment of Individual Dogs and

Cats to 12 Animal Shelters in the United States. 1995–1996

	Individual HPI						
Class of Reasons	Allergya	Personal Problems <sup>b</sup>	No Time for Pet <sup>c</sup>	Child–Pet Conflict <sup>d</sup>	New Baby <sup>e</sup>		
Dogs							
Behavioral problem							
Aggression to people	2.3	3.2	3.1	29.7	17.0		
Nonaggressive problem	10.5	21.4	39.4	31.3	29.8		
Housing issues	16.3	22.1	21.2	6.3	17.0		
Inadequate preparation or expectation	3.5	20.1	14.5	17.2	17.0		
Cats							
Behavioral problem							
Aggression to people	1.6	3.8	0.0	13.0	8.7		
Nonaggressive problem	6.5	7.5	29.3	30.4	32.6		
Housing issues	12.2	25.5	24.4	4.5	23.9		
Inadequate preparation or expectation	4.5	13.2	9.8	13.0	21.7		
Household animal population	6.1	17.9	12.2	0.0	4.3		

*Note.* HPI = health and personal issue. Each animal could have up to five reasons for relinquishment.  ${}^{a}ns = 86$  for dogs and 246 for cats.  ${}^{b}ns = 154$  for dogs and 106 for cats.  ${}^{c}ns = 193$  for dogs and 41 for cats.  ${}^{d}ns = 64$  for dogs and 23 for cats.  ${}^{c}ns = 47$  for dogs and 46 for cats.

TABLE 5
Regional Differences in the Prevalence of Reported HPIs as a
Reason for Relinquishment for Individual Dogs and Cats to
12 Animal Shelters in the United States, 1995–1996

		Region							
		New York and New Jersey <sup>a</sup>		Kentucky and Tennessee <sup>b</sup>		Colorado <sup>c</sup>		California <sup>d</sup>	
Reason		n	%	n	%	n	%	n	%
Dogs									
At least one HPI	Yes	190	36.5	178	28.5	68	28.9	118	17.7
Allergy	Yes	45	8.6	21	3.4	9	3.8	11	1.7
No time for pet	Yes	71	13.6	51	8.2	28	11.9	43	6.5
Personal problems	Yes	46	8.8	59	9.5	17	7.2	32	4.8
Cats									
At least one HPI	Yes	232	44.7	133	35.7	41	37.0	82	22.9
Allergy	Yes	126	18.5	69	18.5	21	18.9	30	8.4
Personal problems	Yes	63	12.1	19	5.1	11	9.9	13	3.6

*Note.* HPI = health and personal issue.

 $^a$ ns = 521 for dogs and 519 for cats.  $^b$ ns = 624 for dogs and 373 for cats.  $^c$ ns = 235 for dogs and 111 for cats.  $^d$ ns = 665 for dogs and 358 for cats.

conflict (Table 4). People surrendering dogs because of a conflict between the dog and a child often reported the dog displaying aggressive behavior toward people as another reason for relinquishment.

# Regional Differences

The frequency of reporting HPIs as a reason for relinquishment differed significantly among regions. HPIs were most commonly cited in New York and New Jersey, followed by Colorado and Kentucky and Tennessee, and were least common in California for both dogs and cats (Table 5).

There were several significant regional differences in the frequency of the individual HPI reasons for relinquishment (Table 5). Allergies to dogs were more frequent in New York and New Jersey, were least common in California, and were of intermediate frequency in Kentucky and Tennessee and Colorado. Probably related to this is the observation that a significantly smaller proportion of dogs spent some or most of their time outdoors in the New York and New Jersey region compared with the other regions. Among cat relinquishers, allergies were reported significantly less frequently in California than in other regions. Personal problems among dog and cat relinquishers were least frequently reported in California, were most frequently reported in New York and New Jersey, and were intermediately

reported in Kentucky and Tennessee and Colorado. Having no time for dogs was reported most frequently in New York and New Jersey, followed by Colorado, Kentucky and Tennessee, and California.

### Litters

A total of 18 litters of puppies (13.0% of all litters) was surrendered because of HPIs. Four litters were surrendered with the dam. The litters had a median size of 4 puppies with a range of 1 to 8. Among those submitting entire litters, the median size was 6.5. In 83% of litters, all pups relinquished were healthy.

A total of 47 litters of cats (15.7% of all litters) were relinquished because of HPIs—43% of these were accompanied by the dam and 39% were complete litters. The median litter size submitted was 3 with a range of 1 to 6. For litters in which all kittens were relinquished, the median litter size was 4. Of the 16 people who owned the dams, 9 intended to breed her again, 3 did not know, and 4 did not intend to breed her again.

Other reasons cited by people relinquishing litters of puppies included inability to find homes for the litter (55.6%), inability to care for these additional animals (50.0%), no time (44.4%), and personal problems (38.9%). People surrendering kittens cited inability to find homes (36.2%), personal problems (31.9%), inability to care for additional animals (23.4%), allergies (21.3%), housing prohibitions (17%), and no time (14.9%).

## DISCUSSION

The select HPIs relinquishment class includes a variety of reasons, some of which are events, such as births or deaths, occurring in people's lives and other circumstances, such as a new job or a need to travel, that arise, often depending on stage of life. As a class, HPIs were the leading reasons cited for relinquishment of cats and the third most common class of reasons for dogs.

Allergies were the most common health and personal reason for relinquishment of cats and the third most common reason for dogs. Relinquishments because of allergies to cats were more than four times more common than for dogs. This is consistent with studies demonstrating a higher frequency of allergies among people to cats than to dogs (Eggleston & Wood, 1992). Dogs surrendered because of allergies had been owned for a significantly shorter period of time than cats brought in for the same reason. The reason for this discrepancy is unknown. Because the treatment of choice is avoidance of contact with the offending allergen(s), allergies to pets will continue to be an unpreventable reason for relinquishment.

Despite the reported frequency of pet allergies, however, it seems probable that some of these relinquishments were not associated with true pet allergies. Rather

than undergo expensive allergy testing, some people with allergies may have chosen to eliminate pets from their environment. Similarly, physicians may have recommended eliminating possibly offending sources (such as pets) in an attempt to alleviate symptoms before embarking on more expensive workups. In a survey of members of the American Academy of Allergists, 50% and 44% recommended removal of animals in the presence of asthma and rhinitis, respectively, regardless of the cause. Even in the absence of pet allergy, 34% still recommended removal of pets (Baker & McCulloch, 1983). In addition, citing allergies may be a socially acceptable means of justifying relinquishment for some people. The fact that 10.6% of those relinquishing cats and 11% of those submitting dogs because of allergies still had other cats and dogs at home, respectively, lends support to this possibility. To our knowledge, there is no literature documenting that some individual animals (or breeds) are more allergenic than others. Some owners may believe, nonetheless, that one animal is responsible and relinquish it. The higher prevalence of reported allergies among people older than 50 (for cats) and among those of Hispanic descent (for dogs) may reflect differences in susceptibility, ownership patterns, popularity of this as an acceptable relinquishment reason, or other unexplained reasons.

## Reasons for Relinquishment

The regional difference in the frequency of reported allergies to dogs and cats was unexpected. The higher prevalence of dog and cat allergies as a reason for relinquishment in the Northeast may be explained, at least partially, by seasonal conditions and the urban environment that prompts them to be kept indoors for longer periods of time, leading to higher concentrations of pet allergens in the home. The fact that the New York and New Jersey region had a significantly lower proportion of dogs and cats spending some or most of their time outdoors supports this hypothesis.

Personal problems were the second most common HPI cited. It may be difficult to make recommendations that lead to significant reductions in animals surrendered because of personal problems of the owner. The reason is sufficiently vague and comprehensive to make discussion of it difficult. People citing personal problems probably include those dealing with truly difficult issues (e.g., low income, unemployment), as well as those using this reason for relinquishment as an excuse for other reasons. The observation that a relatively large proportion (8–11%) of people with this reason request euthanasia (compared with other HPIs at <5%) suggests that some may be making decisions while highly stressed. General attempts to provide good information to prospective owners and counseling for behavior problems that develop will probably help diminish animals surrendered for this reason.

In contrast, careful counseling at the time of adoption (where possible) may successfully persuade some people to postpone the acquisition of a pet until it is more appropriate or may discourage others from acquiring an animal that is not compatible with their lifestyle. The fact that almost 70% of dogs relinquished because owners did not have time for them (the animals had been owned 1 year or less) suggests that careful and sensitive questioning and counseling at the time of adoption could reduce surrenders for this reason. Similarly, people expecting a new baby may benefit from counseling at the time of pet adoption, as more than a third of the animals surrendered for this reason had been acquired within the preceding 9 months. Couples imminently planning to add to their families must understand, when considering the adoption of a pet, the time commitment that is necessary to care for a new baby and a new pet simultaneously. Among those having owned a pet for at least 1 year, more than 25% also reported a behavioral problem, suggesting that the arrival of a new baby may provide the additional stress needed to prompt some people to relinquish a pet.

Conflicts between pets and children arise for numerous reasons, and for some families, conflicts will continue to be unavoidable reasons for relinquishment. In other cases, however, good advice from veterinarians, breeders, or trainers, with regard to teaching children proper handling of pets, selection of breeds without aggressive tendencies, as well as behavior modification of pets with aggressive tendencies may reduce relinquishments for this reason. It is unclear why conflicts between children and both dogs and cats were more commonly reported in California than in the New York and New Jersey shelters. It may reflect differences in the proportion of people with children in the two areas or possibly differences in socially acceptable reasons for relinquishment.

Each of the other HPIs, such as death of owner or divorce, accounted for approximately 2% or less of total relinquishments. Helping to educate people about making provisions for the care of their pets after their death might reduce some of these relinquishments, but efforts are probably more profitably directed at other reasons.

People who had sufficient knowledge to participate in the interviews in this study were predominantly the owners of the relinquished pet (85%) or another family member in the same household (15%). On average, these people incorrectly responded to 4 of 11 statements regarding basic pet husbandry. The need for continuing efforts at educating the public about the frequency of estrous cycles in dogs and cats, the desirability of neutering before a first litter, and the behavioral responses of multiple cats in a household was evident among those with HPIs. This lack of knowledge and the high prevalence of unneutered dogs and cats in this sample reinforce the need for continuing efforts to convince people to get their animals neutered. Neutering would not only reduce births but would also enhance the attractiveness of some animals as pets, reducing undesirable behaviors such as spraying by male cats, straying from home, and fighting, which also lead to relinquishment. In the absence of a control group of households not relinquishing animals, it is unknown whether the lack of knowledge is

associated with relinquishment. Regardless, encouraging neutering and enhancing understanding regarding reproduction can reduce the numbers of unwanted animals.

#### Addition and Surrender

Although almost all new additions of dogs and cats to households were not off-spring of other pets, more than 50% of households with HPIs reported movement of dogs and cats in and out of their households during the previous year. The turnover was predominantly of the same species as the animal surrendered. The movement suggests lack of stability in the human–animal bonds in these households and the need to understand better why some people acquire and remove animals with such frequency. Probably lack of knowledge of the adverse effects and consequences of owning multiple animals, including behavior, cost, and work, is part of the explanation. Better understanding of this phenomenon could lead to enhanced counseling of people as they acquire pets. The movement of animals did not center around shelters, but rather friends, who were the largest source of added animals. This is discouraging in the sense that targeting education to the appropriate people in these transactions may be difficult.

In addition to evidence that many of these households had owned a number of other animals in the past year, approximately 20% still had at least one animal at home. Among animals from households with other animals at home, 77.6% of the dogs and 67.3% of the cats had at least one other class of reasons cited, the most common reasons being nonaggressive behavioral problems for dogs (33%) and too many animals in the household for cats (32.9%). It appears that, under the stress of an HPI, some people reduce the number of animals in the household, perhaps selecting the least favorite animal to take to the shelter.

Among the animals surrendered, 31.9% of dogs were reportedly purebred, emphasizing the importance of the role that breeders and pet shops should play in screening and educating people seeking purebred animals. Breeders must continue their efforts to educate other breeders (Strand, 1993) and enhance their efforts to educate prospective buyers about animal and breed-specific behaviors, the need for neutering, and the importance of training. It is similarly incumbent on veterinarians to educate and serve as a resource for prospective clients not only with regard to health and neutering but also regarding the husbandry, "normal" behaviors, "behavioral problems," costs, and importance of training their pets or prospective pets (MacKay, 1993). Efforts must be directed to influence pet shops to encourage responsible pet adoption.

A high proportion of the dogs (59.7%) and cats (78.3%) surrendered had been acquired at no cost. Patronek, Glickman, Beck, McCabe, and Ecker (1996a, 1996b) found that dog and cats acquired at no cost were at increased risk of relin-

quishment. Whether this reflects the fact that paying for an animal enhances its value to the owner or that some owners acquiring free pets value animals less and therefore never bond as closely is unclear.

In light of the nature of many of the HPIs, it would be interesting to learn whether some people surrendering pets would prefer to keep their pets long term but when in crisis are unable, physically or psychologically, to care for them. Creative approaches to providing temporary accommodations for pets belonging to such people could be developed if such efforts would lead to retention of these pets.

This study represents the largest descriptive study of shelter relinquishments to date. The inclusion of 12 shelters from four regions of the country provides data beyond that collected previously in a small number of shelters. Although these shelters were not randomly sampled, their data provide insight into common reasons for relinquishment from shelters differing in volume, location (rural, suburban, urban), populations served, and demographics of animals surrendered. This was a descriptive study and, as such, did not incorporate a comparison group (a group of people not relinquishing their pets) that could be used to identify risk factors. Therefore, the results must be interpreted with caution, keeping in mind that the characteristics, knowledge base, and behaviors reported for these relinquished animals and their owners may not actually differ from those pets not relinquished and their owners. Coupled with the risk factor studies of Patronek et al. (1996a, 1996b), these data add to our understanding of the reasons for people relinquishing pets in this country.

#### SUMMARY

Selected HPIs were the most common and the third most common class of reasons for relinquishment for cats and dogs, respectively. This class included allergies to pets, no time for a pet, personal problems, the death of the owner, divorce, child and pet conflict, owner traveling, a new baby, owner pregnancy, and having received the pet as an unwanted gift. Among people citing HPIs, allergies in a family member, personal problems, and a new baby were the most common individual reasons for cats, and no time for the pet, personal problems, and allergies were the most common reasons for dogs. Behavioral problems, housing issues, and inadequate preparation or expectations were the most common other reasons cited with HPIs, suggesting that a constellation of concerns at the time of a stressful life event or problem precipitates relinquishment. Educating and counseling people with regard to issues surrounding pet acquisition, ownership (e.g., house breaking, neutering), and behavioral modification must be proactively undertaken by all facets of the pet-associated community. Using results from studies such as these, veterinarians, breeders, trainers, shelter and pet shop personnel, and humane organizations must

expand their efforts by developing and using more effective means to educate and support pet owners to promote successful, long-lasting pet—owner relationships.

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