

**Case Study:
Companion Animal Over-Population Programs in New Jersey,
New Hampshire, and Maine
And**

A New Program for Maine

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ABSTRACT

There are more companion animals (cats and dogs) in Maine than there are homes available to take care of them. As a result, thousands of Maine's cats and dogs are euthanized each year. Many, however, believe that pet overpopulation, their relinquishment to animal shelters, and the subsequent euthanization of these animals are preventable problems with a rational solution. In addition to being supported by both relinquishment studies and economic studies of issues surrounding pet overpopulation, this belief is also supported by the experience of the States of New Jersey and New Hampshire, who implemented low-income, low-cost, spay/neuter programs in 1984 and 1994 respectively. These states have shown that in addition to saving lives, spay/neuter programs can substantially decrease the number of animals euthanized by shelters and the costs to shelters, municipalities, and the public at large of handling stray or unwanted animals. In 1998 the State of Maine also funded a low-income, low-cost, spay neuter program. This program was successful in that the funds were quickly depleted, indicating a need; however, the state never provided additional money and the program eventually ceased to exist.

An analysis of New Jersey's and New Hampshire's effectual, and Maine's ineffectual spay/neuter programs has provided the information necessary to design a potentially successful program for Maine. With a well-funded, well-designed program that also includes an education and outreach component, Maine, like New Jersey and New Hampshire, can also make great strides in solving its companion animal overpopulation problem.

INTRODUCTION

Tens of thousands of unwanted animals are dropped off at shelters across the country every day. It is estimated that our nation's shelters euthanize 2 million dogs and 4 million cats every year, with some estimates being as high as 18 million dogs and cats per year (Patronek et. al., 1996a, b). Killing unwanted and homeless animals has been an accepted solution to the pet overpopulation problem in the United States for well over a century. In fact, this practice of "euthanasia" is practically synonymous with pet overpopulation (DiGiacomo, et. al, 1998). As evidenced by the millions of donors who knowingly contribute money to shelters that euthanize, and public animal control agencies that also euthanize or contract to have the euthanization performed for them, this practice is considered accepted public policy.

Many believe however, that pet overpopulation, their relinquishment to animal shelters and the subsequent euthanization of these animals are preventable problems with a rational solution. In addition to being supported by both relinquishment studies and economic studies of issues surrounding pet overpopulation, this belief is supported by the experience of the State of New Jersey, which in 1984, was the first state in the country to aggressively address its pet overpopulation problem with a statewide spay/neuter program. It is also supported by the State of New Hampshire, which implemented its low-income, low-cost, spay/neuter program in 1994. These states have shown that in addition to saving lives, a spay/neuter program can substantially decrease the number of animals entering shelters and the costs to municipalities and the public at large of handling stray or unwanted animals.

In 1998, the State of Maine also funded a low-cost, low-income, spay/neuter program. However, unlike the New Hampshire and New Jersey programs, Maine's efforts were limited and as a result, although Maine has a need, it reaped minimal success.

This case study examines Maine's spay/neuter program in comparison to New Jersey's, and to a greater extent New Hampshire's successful program, in order to determine what makes a successful program and to design a program that will have similar results for Maine, by using New Hampshire and New Jersey as models. I compared Maine's program primarily to New Hampshire's because of its similarity, geographically, demographically, and economically. Although New Jersey is quite different from Maine and New Hampshire in these respects, I included it in this analysis because of its years of experience with this issue.

LITERATURE REVIEW

There is concern among animal welfare advocates, and society in general, about the large numbers of healthy but unwanted pets relinquished to and subsequently euthanized in animal shelters across the country. In response, hundreds of shelters and some municipalities and states have implemented spay/neuter programs. However, there is no *scientific* literature regarding these programs. At present, millions of animals are destroyed each year as a result of consumer decisions about which very little are known. "When one considers the quantity and quality of statistical data that are compiled about far less momentous consumer choices – brands of breakfast cereal for instance, the necessity and importance of empirical work in this area becomes clear" (Fennel, 1999, p. 218). It is interesting to note, however, that available literature on the subject focuses on the idea that the pet overpopulation and killing problem is preventable.

Several studies have been conducted to determine exactly why people relinquish their companion animals. Two names, Gary Patronek, DVM, PhD., and the Tufts University Center for Animals and Public Policy, of which Mr. Patronek is Director, are repeatedly cited in this literature.

Patronek's studies found that several risk factors could be modified to decrease the number of cats and dogs relinquished to shelters. With both dogs and cats, nearly one third of relinquishments could be directly attributed to the animals being sexually intact (1996a and 1996b). This alone provides evidence of the beneficial effect of sterilization independent of the fact that it will prevent unwanted litters from coming into the shelters.

RELINQUISHMENT CHARACTERISTICS

Two analogous studies exploring the risk factors involved in the relinquishment of cats and dogs, respectively, to the Humane Society in Mishawak, Indiana reached similar conclusions. Both studies were conducted over a six-month period. They compared information from households surrendering cats and dogs to the Humane Society (case households) to information from a random sampling of current cat- and dog-owning households (control households) in the same area. Specifically, the studies used statistical analyses to look at cat/dog-related risk factors, acquisition-related risk factors, and household-related risk factors. The authors warn that because of the retrospective design of these studies, causal relationships are difficult to establish, therefore cause-and-effect aspects of different risk factors are difficult to determine and the results of the studies should be interpreted with caution. However, they also go on to state that though their studies were conducted in only one community, the results provide insight about the risk for relinquishment of animals in many similar communities across the country (Patronek, et. al., 1996a and 1996b).

Both studies showed that the animals more likely to be relinquished include sexually intact animals (Patronek et. al., 1996a and 1996b). In comparison to what was observed for dogs, case households were even more likely to cite cost as the reason for failure to sterilize their cat than control households, even though the cost of sterilizing a cat is less than that for a dog. “Because the cost of surgically sterilizing cats is typically lower than that for dogs, this result was paradoxical and may have reflected the way cats are perceived and valued by owners” (Patronek, et. al. 1996a, p. 586).

ECONOMICS

Studies directed specifically at the economics of companion animal population also provide a compelling argument for sterilization as a cost effective solution to companion animal over population. In his recently completed dissertation, *The Economics, Ethics, and Ecology of Companion Animal Overpopulation and a Mathematical Model for Evaluation of the Effectiveness of Policy Alternatives*, Dr. Joshua Frank (2002) focused on the effectiveness of various methods of reducing the cost of dog overpopulation. Frank found that spay/neuter programs have the potential to be among the most cost-effective tools because even if these programs only reach a small number of consumers, they can result in a large change in euthanasia and abandonment rates. Society (at least for an area with dynamics similar to the Albany region of New York where Frank conducted his study):

“can reasonably achieve a ‘no kill’ goal. The exact cost would depend on assumptions, methods, and time frames used. However, under some assumptions and with a long time frame of 30 years or more, the goal might be achievable for between \$100,000 to

\$200,000 a year, with most of that money going towards low-cost spay/neuter programs and spay/neuter education” (Frank, 2002, p. 102).

Survey results indicate that only a small percentage of the population has dogs that are allowed to reproduce. However, this small group still generates enough puppies to supply most of the pet-owning population with new animals with new dogs generated per existing dog by private owners. Because of the profound impact this group of dog owners has on population dynamics, the small size of this group can be deceptive. The results here also give some insight into the profile of this population. . . Owners of reproducing animals were lower in income and tended to rate the cost and benefits of ownership as lower relative to expectations” (Frank, 2002, p. 102).

Patronek’s study also tends to back up spay/neuter as a means of lowering the population of unwanted pets. In his study of household-related risk factors for cat relinquishment, Patronek found that annual household income of less than \$40,000 was associated with an increased risk of relinquishment, compared with that for households with annual incomes of greater than \$75,000. Households with annual incomes of less than \$20,000 were at the greatest risk (1996a). For dogs, Patronek found that of the 81 case and control households that did not take their dog to a veterinarian, 28 (34.6%) had annual incomes of less than \$20,000 (1996b).

In addition to studies that support the idea of spaying/neutering as a means of lowering the numbers of unwanted pets, there is also evidence that this alone may not be adequate. In 1995, Patronek and Glickman developed a model for estimating the size and dynamics of the pet dog population. In developing their model they found that “traditional solutions to pet

overpopulation, such as sterilization and newer initiatives such as laws designed to discourage or prohibit breeding, have emphasized the role of supply and appear to discount the role of consumer demand and pet retention in the pet overpopulation equation” (Patronek & Glickman, 1995, p. 39). If the demand for puppies remains unchanged and the supply of puppies is reduced from one particular source, such as household breeding, the supply from other sources will rise to meet the demand. “Without a corresponding increase in owner education and responsibility, or an increase in public demand for adult dogs as pets, the best that can be hoped for is to shift the age distribution of dogs euthanized in shelters from puppies to older dogs” (Patronek, et. al., 1995, p. 40).

The effectiveness of supply-focused intervention has also been questioned by others. A review of companion animal management programs conducted in 1987 by A. Rowans and J. Williams and reported in the International Society for Anthrozoology’s Journal: *Anthrozoos*, states that the debate over the effectiveness of the subsidized spay/neuter program in Los Angeles, the largest of its kind in the nation, still continues. They go on to report that (as of 1992) the highly regarded New Jersey spay/neuter program established nearly a decade ago with the support of humane groups and the New Jersey Veterinary Medical Association, has yet to have an observable effect on the number of animals euthanized. They also find that this is not surprising because several surveys have indicated that cost has not been shown to be an important factor in the failure of owners to neuter their pet dogs (Patronek & Glickman, 1995).

CONCLUSION

Patronek’s studies, which identify risk factors that lead to the development of this deadly companion animal “disease,” characterized the risk factors as “potentially modifiable.” Patronek

believes the value of the studies is that knowledge of these factors will allow pet owners, veterinarians, and humane organizations to decrease the risk that a dog or cat will become unwanted by his/her owner. Patronek's studies, in conjunction with Frank's economic analysis, that focused on the effectiveness of various methods of reducing the cost of dog overpopulation, indicate that if properly funded and designed, a spay/neuter program in Maine can positively affect its shelter euthanasia and intake rates. It should also be noted that although, in their 1992 study, Rowans and Williams found that New Jersey's program has yet to have an observable effect on the number of animals euthanized, current data from the state indicate the program is positively effecting euthanasia rates.

CASE STUDY METHODOLOGY

My case study methodology consisted of document analysis, key stakeholder interviews/discussions and data analysis.

DOCUMENT ANALYSIS

To assess the existing spay/neuter programs and to gather data with which to design a spay/neuter program for Maine, I reviewed existing documents. These documents described in Table 1.

**TABLE 1
DOCUMENT ANALYSIS**

DOCUMENT	COMMENT
New Jersey Spay/Neuter Legislation and Program Records	I reviewed spay/neuter program legislation and its program records for the years 1984 through 2000 including spay/neuter program data and shelter intake and euthanasia data.
New Hampshire Spay/Neuter Legislation and Program Records	I reviewed spay/neuter program legislation and program records for the years 1996 through 2000 including spay/neuter program data and shelter intake and euthanasia data.
Maine's Control Animal Population (CAP) Program Records	I reviewed CAP program records for the years 1996 through 2001.
Maine Shelter Records	I reviewed shelter euthanasia and intake records for the years 1998 through 2001 for between 12 and 18 (depending on the year) shelters.
Census Data	I reviewed demographic and economic data from the 2000 census for New Hampshire and Maine.

Key Stake-Holder Interviews /Discussions

I interviewed several key stakeholders (see Table 2) in New Hampshire and Maine. Interviewees were chosen based on the following criteria:

- He/she has first hand knowledge of the successes/shortcomings of New Hampshire's program.
- He/she has first hand knowledge of Maine's CAP program.
- He/she deal with Maine's current animal over-population problem.
- He/she would have direct involvement if a state spay/neuter program were started here in Maine.

TABLE 2
KEY STAKEHOLDER INTERVIEWS/DISCUSSIONS

ORGANIZATION	NAME AND/OR TITLE
Solution to End Overpopulation of Pets Program Director of New Hampshire's Spay/Neuter Program	Peter Marsh - Founder and Director. Also, spearheaded passage of New Hampshire's Spay/Neuter Program
Program Administrator of CAP Program	Elizabeth Campbell - Program Director
State of Maine Animal Welfare Program	Denise Springer - Program Administrator
Maine Federation of Humane Societies	Leslie Lichko - Former Director
Maine Animal Control Officers	Four animal shelter directors
Maine Veterinary Association Members	Two Animal Control Officers
Other Animal Welfare/Advocacy Organizations	Three veterinarians including the Chair Friends of Feral Felines Homeless Animal Rescue Team Maine Friends of Animals A Voice for Animals

DATA ANALYSIS

To describe the basic features of the data in this case study, I analyzed quantitative data using descriptive statistics.

RESEARCH LIMITATIONS

I encountered four primary research limitations during data collection from Maine shelters: 1) Maine shelters generally do like to share their intake or euthanasia data; 2) record keeping is not a priority for shelters; 3) the criteria for euthanizing an individual animal varies between shelters; and 4) some aspects of the data provided by the existing spay/neuter programs were not comparable.

Originally, I had sent surveys to 18 Maine shelters. To qualify to receive a survey the shelter had to meet the following criteria:

- Serve a major urban or rural population center or geographic area of the state;
- Take in both cats and dogs;
- Conduct euthanasia;
- Accept public funds; and
- Contract with area communities to care for its stray and unwanted animals.

Of the 18 shelters who received surveys, a total of five responded: two sent data; one said it was no longer in business and no longer had any records; two said they would respond but never did; and the rest did not respond. As a result of actually receiving data from only two shelters (11% response rate) I obtained shelter data, for the years 1997 through 2001, compiled by the Maine Federation of Humane Societies (MFHS). This data presented additional limitation. The number of shelters reporting to the MFHS varies each year and some organizations did not always provide a complete data set. I also was not provided with the names of the shelters reporting. As a result of this, I was unable to use my original criteria listed above. The data set provided by the MFHS is presented as Appendix A.

While limitations presented by the lack of response to my survey and by the MFHS data may have affected the precision of my data, the gross intake and euthanasia rates obtained from this data were adequate for the purposes of this case study. In fact, shelter responses, lack of responses, and subsequent communication with some of the shelters, provided me with further

insight into the companion animal overpopulation problem in our state and the difficulties and fears that animal shelters and rescue organizations face in their day-to-day efforts.

It is also important to mention that in addition to the research limitations discussed above, the data I collected from each state were not comparable. New Jersey's spay/neuter program provided me with shelter intake, euthanasia, adoption, *total* surgery, and costing data. It did not, however, provide data indicating the number of surgeries performed on cats versus dogs or the amount of money spent on its "shelter adoption" program spay/neuters versus its "low-income" program spay/neuters. Additionally, New Jersey did not provide shelter or costing data for the years prior to the start of its spay/neuter program. New Hampshire's program provided intake, euthanasia, and costing data but did not provide adoption data. It also provided costing data for 2001-2002 but did not have shelter data for these years. Maine's program provided costing data and indicated the number of surgeries provided on cats versus dogs. Maine's program did not, however, collect intake and euthanasia data. As discussed above, these were provided by the MFHS. The "different" data sets provided by each program presented some analysis difficulties however; they also aided me in the design of a new program for Maine, particularly in the area of performance measurement.

FINDINGS FROM THE SPAY/NEUTER PROGRAMS

The States of New Jersey and New Hampshire both currently have public sector administered low-income, low-cost spay/neuter programs in place. New Jersey's program has been in place since 1984 and New Hampshire's since 1994. Maine's program, though funded for a short time

by the public sector, was administered by the non-profit sector. The following subsections describe each of the three programs.

NEW JERSEY'S ANIMAL POPULATION CONTROL PROGRAM

New Jersey was the first state in the country to aggressively address its companion animal overpopulation problem by implementing a statewide spay/neuter program. The New Jersey State Department of Health and Senior Services (DHSS) recognized that stray and unwanted pets place an “enormous financial burden on municipalities and non-profit humane agencies organized to care for these animals” and that “reducing the number of unwanted stray animals will relieve the financial burden placed upon local municipalities resulting from pickup, impoundment, and euthanasia of stray dogs and cats” (Moyner, 2002, p. 1). In May of 1983, the New Jersey legislature passed Assembly Bill 1917 which directed the DHSS to establish a low-cost spay/neuter program called the Animal Population Control (APC) program.

To use the program, a low-income citizen of the state must be eligible for one of several state public assistance programs. He/she must present proof of eligibility to a participating veterinarian along with a \$10 co-payment. For the low-income individual, this co-payment covers the cost of a pre-surgical examination, immunizations (except rabies),¹ the spay/neuter surgery, maintenance discharge, removal of sutures, and post surgical complications (DHSS, 2002).

Veterinarians participating in the program are required to have their facilities inspected by the New Jersey Veterinary Medical Association (NJVMA) and submit a fee schedule for spay/neuter

¹ Rabies immunizations are not included because they are provided, at no cost, by the majority of New Jersey municipalities.

surgeries. Upon review and acceptance of the fees by the APC Program Director, the veterinarians are reimbursed 80 percent of their fees for surgery for each of “ten various animal weight and sex categories” (DHSS, 2001, p. 4). To receive payment they must submit the \$10 co-payments, their spay/neuter invoices, and corresponding forms (including the proof of eligibility) to the Program Director on a monthly basis (DHSS, 2001).

Since the program’s inception in 1984, several legislative and administrative changes have occurred which made the program both more expansive and easier to access. This, in turn, has significantly increased participant eligibility; resulting in an increased demand for services. In 1986, the DHSS expanded the program to include any cat or dog adopted from a licensed non-profit shelter or pound. The objective of expanding the program was “to encourage shelter adoption and increase the number of altered pets reentering the pet ownership cycle” (DHSS, 2001, p. 2). To use this portion of the program, the pet owner must have adopted the pet from a state licensed, non-profit shelter or pound, license his/her pet pursuant to state and municipal law, and pay a \$20 co-payment fee. The participant does not have to be eligible for a low-income program (DHSS, 2001).

In January 1990, Senate Bill 2977 became law. This meant that *cats* were no longer required to be licensed before being spayed/neutered through the program and shelters and pounds were no longer required to be non-profit to participate in the program. In January 1992, the law was changed again, this time allowing dogs and cats adopted from non-profit, incorporated, animal adoption referral agencies,² which do not operate holding facilities, to be eligible for the program (DHSS, 2001).

² Adoption referral agencies consist of groups such as breed rescues and animal welfare organizations that use “foster homes” or other means of housing animals.

In July 1995, the program initiated a telephone pre-surgical authorization system. This system allows veterinarians to receive authorization for each surgical case on a 24 hour, seven day a week basis. This system also keeps track of the “draw-down” on APC Program funds and signals when it is approaching depletion, at which time authorization is no longer given. As a result of all of these changes, demand for the program services increased dramatically resulting in the exhaustion of the allocation of funds within four weeks into each quarter (DHSS, 2001).

The APC program was initially funded by the co-payment fees and a \$3 surcharge for each unaltered dog that is licensed. The surcharge is collected by the municipality when the animal is licensed, and the municipality forwards it to the APC Program. In 1992, the DHSS sought the help of the Humane Society of the United States (HSUS) and the NJVMA to identify potential sources for increased funding. As a result, in April 1993, the “Animal Friendly License Plate” became available. All proceeds from the sale of these plates are used strictly for reimbursement of spay/neuter surgeries. From April 1994 through November 2001 more than 33,345 license plates have been sold, resulting in gross sales receipts of over \$1.6 million dollars (DHSS, 2002). The DHSS is currently working with the Governor’s office to identify ways to further increase revenues. The DHSS projects that “with the current demand for service, approximately 30,000 surgeries could be performed annually at a cost of \$2.4 million per year. In its October 2001 “Report to the Legislature,” the DHSS recommended the following:

1. Amend legislation to require that all dogs be licensed in order to be eligible for surgery (currently, pet owners participating in the public assistance programs are not required to have their dogs licensed prior to surgery).

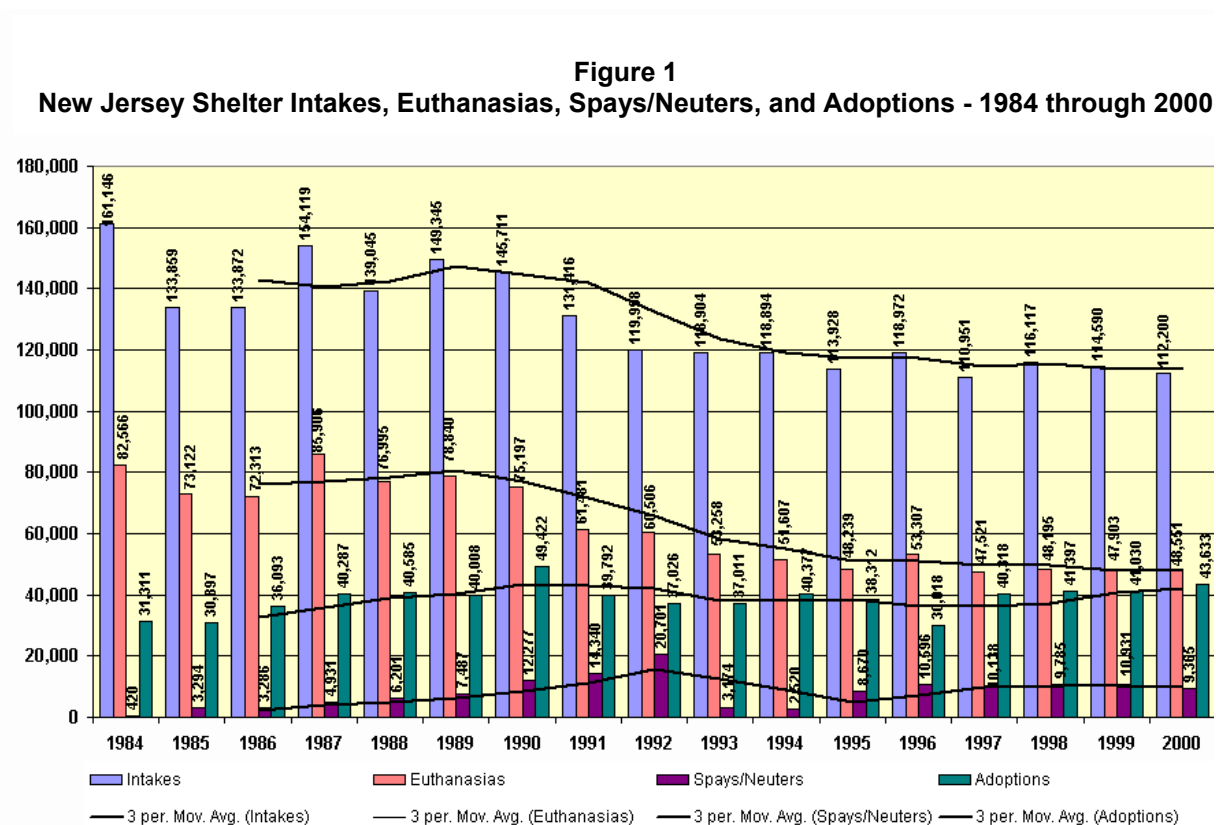
2. Increase the co-payment fees.
3. Increase the \$3.00 licensing surcharge.
4. Make the licensing of cats mandatory.³

The fourth recommendation; making the licensing of cats mandatory would provide a substantial increase in new revenues. The APC Program estimates that there are approximately 1.7 million owned cats in the state. If licensing of cats were required, it would add an additional \$330,000 to \$660,000 in annual revenue, depending on compliance. It should also be noted that the APC Program is funded primarily by dog owners, while cat owners receive most of the benefit. There have been 138,116 surgeries performed since the inception of the program, and on average there were 20% more cats than dogs spayed/neutered. (DHSS, 2001).

The APC Program conducts an annual survey of sheltering and impounding facilities to determine the number of dogs and cats impounded by all 567 state municipalities. The program uses the survey to determine long-term trends of the number of dogs and cats impounded and the potential effect of an increase in spaying/neutering and “other influencing factors.” As shown in Figure 1, there has been a 25% reduction in the number of cat and dog intakes and a 41% reduction in euthanasias since 1984. Additionally, the adoption rate has increased by 39% during that same period (DHSS, 2001). Also, since 1995, the number of spay/neuter surgeries

³ “Approximately half of New Jersey municipalities have cat licensing ordinances in place, however these fees are not forwarded to the APC because there is not stat legislation mandating cat licensing and requiring a proportion of the licensing fees to be submitted to the state” (DHSS, 2001, p. 8)

performed and the number of shelter intakes and euthanasias, have leveled out, possibly indicating the spay/neuter program has reached “equilibrium.”



Without data from several years prior to the start of the program, it can not be known for certain that the shelter intake and euthanasia rates were not already in decline from other factors.

Assuming they were not, it is still unknown exactly how much of the decrease in shelter intakes and euthanasias, and the increase in shelter adoptions, can be attributed to the low-income spay/neuter program, to the shelter adoption spay/neuter program, or to both.

The objective of the low-cost, low-income element of the spay/neuter program was to alleviate the “enormous financial burden on municipalities and non-profit humane agencies organized to care for these animals.” It was thought that “reducing the number of unwanted and stray animals will relieve the financial burden placed upon local municipalities resulting from pickup,

impoundment, and euthanasia of stray dogs and cats” (Moyner, 2001, p. 1). As evidence that the number of unwanted and stray animals decreased we can look at Table 3, which shows the reduction in shelter intakes (which reduced euthanasias). The data shows that over a 16 year period, New Jersey has experienced a 24% reduction in shelter intakes, indicating that the program has been successful in meeting this objective.

**TABLE 3
NEW JERSEY SHELTER INTAKES AND ADOPTIONS**

Year	Intakes	Adoptions
1984	161,146	31,311
1985	133,859	30,897
1986	133,872	36,093
1987	154,119	40,287
1988	139,045	40,585
1989	149,345	40,008
1990	145,711	49,442
1991	131,416	39,792
1992	119,998	37,026
1993	118,904	37,011
1994	118,894	40,377
1995	113,928	38,312
1996	118,972	30,018
1997	110,951	40,318
1998	116,117	41,397
1999	114,590	41,030
2000	112,200	43,633

When the DHSS expanded the program in 1986 to include any cat or dog adopted from a licensed, non-profit shelter, its objective was “to encourage shelter adoption and increase the number of altered pets reentering the pet ownership cycle” (DHSS, 2002, p. 2). Again, without knowing the shelter adoption rate prior to the onset of the program, it can not be known if shelter adoptions were not already increasing. Assuming they were not, the success of this part of the

program can be measured by the increase in adoptions (which also reduced euthanasias). Data provided by DHSS (see Table 3) indicates that New Jersey's adoption rates increased by 39% between 1984 and 2000.

From a financial perspective the spay/neuter program also has saved New Jersey tax payers and non-profit humane agencies money. Based on a survey conducted by the DHSS in 1991, "a conservative estimate of the cost to pickup, hold, and euthanize an animal was \$58" (DHSS, 2002, p. 1). By subtracting the number of intakes each subsequent year from the number of intakes in 1984, the year the program started, I estimate that since inception of its spay/neuter program, approximately 536,415 fewer animals have been sheltered. Cost data from 1993 through 2000 indicates the program spent a total of \$6,387,988.⁴ From 1993 through 2000, approximately 345,612 fewer animals have been sheltered. Had these animals been sheltered it would have cost New Jersey tax payers \$20,567,496. Instead, the state spent \$6,387,988 on its spay/neuter program resulting in a cost savings of approximately \$14,179,508 for those years. Another words, for every \$1.00 that New Jersey spent on this program, it saved \$3.00.

NEW HAMPSHIRE'S ANIMAL POPULATION CONTROL PROGRAM

New Hampshire began its Animal Population Control Program (APCP) in July 1994 with the passage of RSA 437-A Animal Population Control. The purpose of RSA 437-A is "to reduce the population of unwanted and dogs and cats by encouraging the owners of dogs and cats to have them permanently sexually sterilized, thereby reducing potential threats to public health and safety from mid-Atlantic rabies" (New Hampshire Legislation, 1994, p. 1).

⁴ The years 1993 through 2000 are the only costing data provided to me by the New Jersey DHSS.

New Hampshire's program is administered by the Department of Agriculture, Markets, and Food (DAMF). Like New Jersey's program, it is actually two programs; Plan A, a shelter adoption program and Plan B, a low-cost, low-income program. New Hampshire's decision to implement both a shelter adoption and a low-cost, low-income program differs from New Jersey's. In New Hampshire, it was a "political" decision for the coalition of animal welfare groups who designed and lobbied for the inclusion of Plan A. "They expected that the low-income program (Plan B) would have a much greater impact on reducing shelter euthanasia rates; however, it was their impression, at the time, that it would not generate as much legislative support as the "Shelter Adopter Program" (Plan A) (P. Marsh, personal communication, May 4, 2003).

Plan A is for *any* resident of the state who adopts a cat or dog from a participating animal shelter. This resident can have the pet spayed/neutered for a flat fee of \$25. Plan B is for those cat/dog owners who participate in, or are eligible for, one of the following programs (DAMF, 1995):

- Food Stamp Program

- Supplemental Security Income Program

- Temporary Aid to Needy Families

- Aid to the Needy Blind Program

- Medicaid Program

- Old Age Assistance Program

- Aid to the Permanently and Totally Disabled Program

Plan B enables these owners to have their pets spayed/neutered by a participating veterinarian for a co-payment of \$10. The APCP will pay for the remainder of the cost of sterilization, examination, and up to \$30 towards any necessary pre-surgical immunizations. There is no limit on the number of pets an individual may have spayed/neutered. Plan B applications are available through the APCP, Health and Human Services District Offices, and participating animal shelters and veterinary clinics. The applicant simply fills out the six line items in Part 1 of the application, attaches proof of eligibility, and returns it to the APCP administrator. After the administrator approves the application it is returned to the applicant who can then take their pet to a participating veterinarian for the surgery. The applicant must give the veterinarian the approved application form and pay the \$10 co-payment to the veterinarian at that time (DAMF, 1995).

Veterinarians who wish to participate in the program must complete and sign an agreement and provide a fee schedule, on an annual basis, to the APCP. The agreement calls for an 80% reimbursement rate on their fees minus the \$10 co-payment. It states that “any fees associated with any surgical complications are not subject to reimbursement from the NH Department of Agriculture, Markets and Food, Animal Population Control Program.” Further, the veterinarian will not be reimbursed for surgeries on ineligible pets (DAMF, 2000, p. 1). For each animal sterilized, the veterinarian must submit invoices with a copy of the application form to the

program administrator. The program administrator authorizes payment and reimburses the veterinarian.

The program is funded through a \$2.00 “companion animal population fee” attached to New Hampshire’s dog licensing fees of \$4.50 for a spayed/neutered dog and \$7.00 for an “intact” dog. New Hampshire licenses approximately 130,000 dogs per year, generating revenue of approximately \$260,000. The town clerk collects the fee at the same time the dog is licensed and remits it to the state treasurer who then deposits it into the companion animal neutering fund, established by RSA 437-A:4-1. As of April, 2003 this \$2.00 fee has not increased since its inception in 1994.

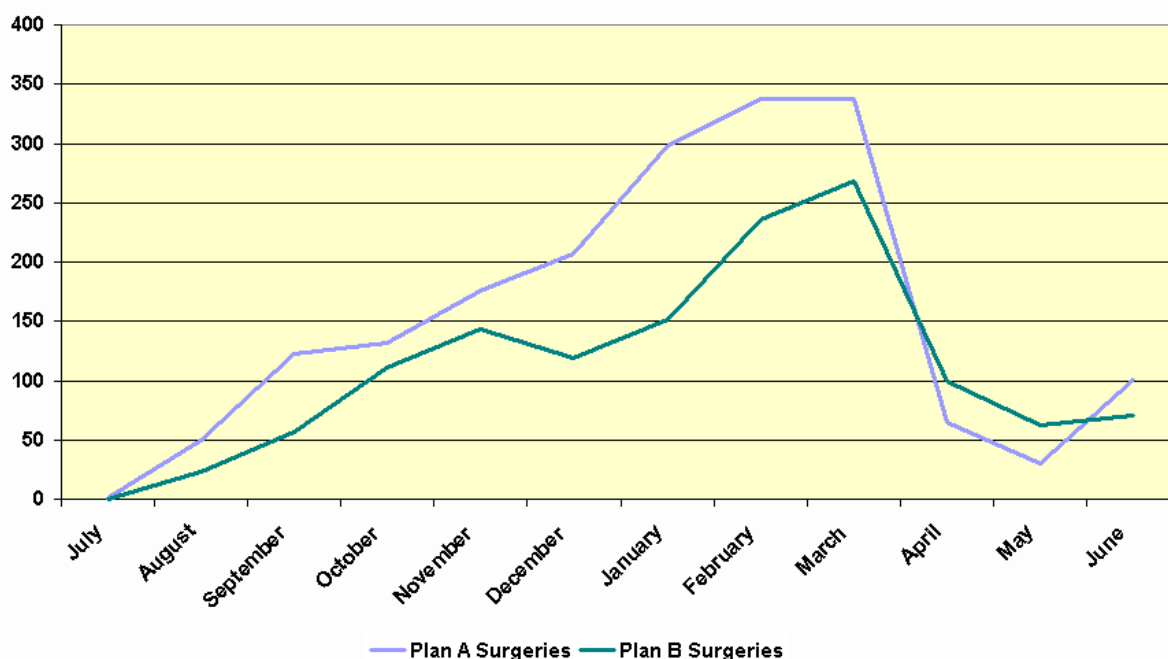
Although, by all accounts, the first year of the program was considered highly successful, it took several months before it caught on with both the veterinary community and the public. In 1994, in anticipation of the start of its first year of operation, the program administrator mailed an information packet to each of New Hampshire’s 135 veterinarian hospitals and approximately 30 shelters.⁵ Of these, only 15 hospitals and 12 shelters signed on. In addition, the first month (July) of the program yielded only one Plan A spay/neuter procedure and did not yield a single Plan B procedure. However, as illustrated by the following graph, “from that month on, the program grew tremendously” (DAMF, 1996, p. 2).

As shown in Figure 2, the program peaked in March and then rapidly declined through April and May. This is because the state removed \$60,000 from the APCP budget for use in other programs. As a result, the APCP was forced to shut down at the end of March. Then, “by

⁵ The eight largest shelters in New Hampshire account for 95% of its intakes and euthanasias (Marsh, 2002; p. 1).

manipulating the budget, \$14,000 was quickly made available and the program continued for approximately one week and then it was shut-down until the end of May. At that time \$40,000 was approved through a supplemental budget but by the time the program reaches capacity again the majority of the money will have lapsed” (DAMF, 1996, p. 3). It is very interesting to note that when it was clear that the program no longer had enough money to operate the full year, the participating shelters collectively chose not to participate in the program (Plan A) so that funds would be available for the low-income, low-cost (Plan B) program (DAMF, 1996).

Figure 2
New Hampshire APCP Program - Fiscal Year 1995



Source: New Hampshire Animal Population Control Program Fiscal Year 1995 Summary.

At the close of fiscal year 1995, there were 85 veterinary hospitals and 21 shelters participating in the program. Of these, 75 hospitals had actually billed the program and 10 had not seen any applicants. The veterinarians in the program received \$66,498 from Plan A (1,858 surgeries)

and \$47,994 from Plan B (1,341 surgeries) at an average cost of \$35.79 per surgery. The program also found that “Plan B applicants have averaged 1.5 animals per household with some having as many as 10 or more” and that “7% of the applicants are not receiving aid from one of the seven programs listed on the application and have submitted other forms of verification to show they are low-income” (DAMF, 1996, p. 3).

The APCP encountered other problems throughout the ensuing years. In March 1996, the program ran out of money after completing 2,215 Plan A and 1,311 Plan B surgeries. Again, this time in February, the shelters collectively decided to leave the remaining funds for Plan B recipients. In its third year the APCP managed to operate for 10 months before running out of funds and shutting down on April 30, after spaying/neutering 2,475 animals under Plan A and 1,531 under Plan B. In addition, the APCP welcomed two more veterinary hospitals and three more animal shelters to the program. In 1998, with a total budget of \$193,507, the program did not run out of money and Plan A spayed/neutered 3,185 animals and Plan B spayed/neutered 1,530 animals, at a total cost of \$183,410. That year, the Plan B applicants averaged 1.9 animals per household, a 0.5 animal increase from the previous three years (DAMF, 1998).

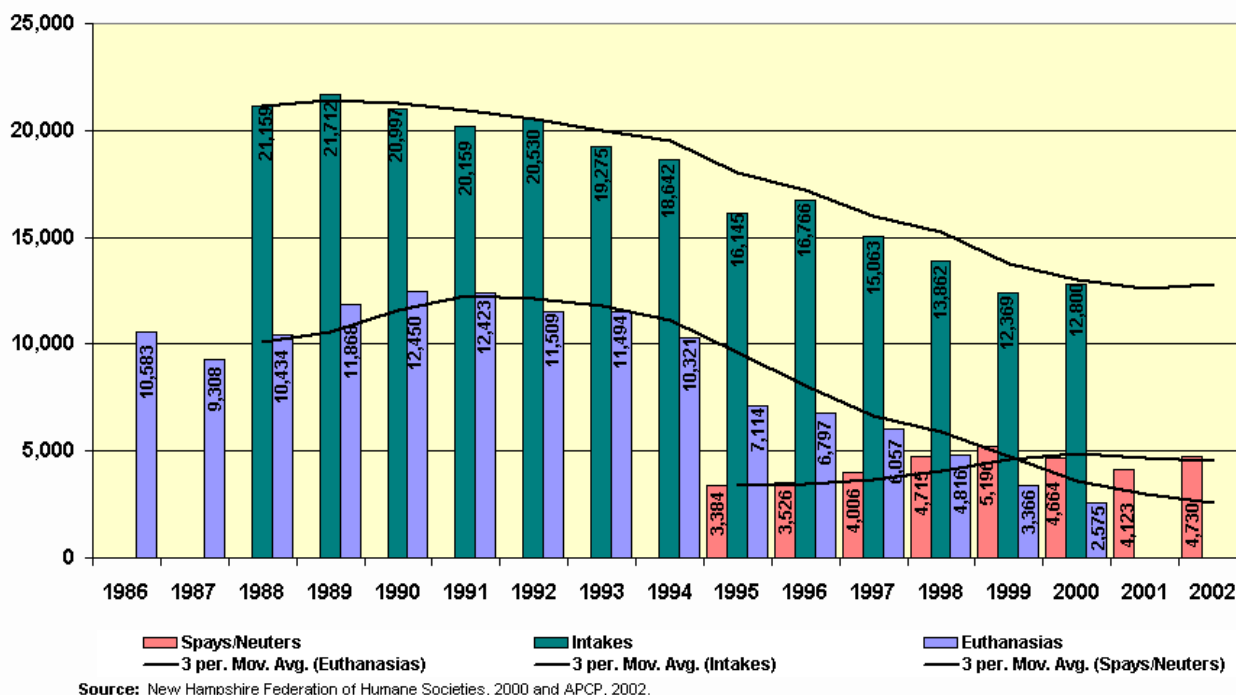
As of fiscal year 2000, the program has managed to operate for the third year in a row without shutting down. The APCP has welcomed four more veterinary practices, for a total of 103, added one more shelter, and lost one shelter⁶ from the program, for a total of 27. At this point, the New Hampshire Federation of Humane Societies (NHFHS) determined that its state “now has the lowest shelter euthanasia rate in the United States” and that “8,000 fewer animals have been euthanized every year (20 fewer dogs and cats per day).” (DAMF, 1997, p. 1)

⁶ This shelter closed down.

Fiscal year 2001 brought a shutdown in April as a result of paying several fiscal year 2000 invoices with 2001 money. In addition, the program had its largest month since its inception, in February, with 332 and 151 Plan A and Plan B surgeries respectively, at an average cost of \$54.93 per surgery. The average cost was \$10 higher than the previous years due to a rise in the percentage of Plan B surgeries. Plan B surgeries often cost more than Plan A surgeries because animals adopted from shelters have generally received immunizations as part of the intake process, therefore, these animals do not need to be immunized as part of the APCP. During fiscal year 2002 Plan A had spayed 3,117 and Plan B had spayed/neutered 1,613 dogs and cats (DAMF, 2002).

New Hampshire's program has been extremely successful at decreasing both shelter intake and euthanasia rates (Figure 3). Between 1986 and 1994, the euthanasia rates hovered between 9,000 and 12,000. Then, in 1995, they began to plummet. Between its implementation in 1994 and 2000, these shelters experienced a 34% decrease in intakes and a 75% decrease in euthanasias.

Figure 3
New Hampshire ACP Program Data - 1986 through 2002



While New Hampshire's success may not be solely attributed to its Plan B low-income, spay/neuter program, all indications are it is the major contributing factor. Since 1995 there have been approximately 51% more surgeries conducted under Plan A than Plan B (see Figure 4). However, even though more spay/neuters were conducted under Plan A, this plan, like that of New Jersey, likely contributes less to the overall success of the program. The reason for this is two fold:

1. Most of New Hampshire's shelters make neutering a condition that must be met if someone wishes to adopt an animal. Therefore, the shelter animals spayed/neutered under Plan A would likely have been spayed/neutered before being adopted out anyway.

2. Most of New Hampshire's shelters screen the people who want to adopt a pet to make sure, among other things, that he/she can financially care for an animal.

The primary purpose of Plan A was to make the adoption of shelter animals more affordable, especially those animals that are not spayed/neutered "as 50% to 60% of shelter cats and dogs generally are" (Marsh, personal communication, May 6, 2003). Therefore, like New Jersey's program, the success of Plan A should be able to be measured by the increased in shelter adoptions (which reduces euthanasias), and the success of Plan B by the reduction in shelter admissions (which also reduces euthanasias). Although I was unable to obtain shelter adoption data, according to Attorney Peter Marsh, the leading proponent of New Hampshire's program, if this is true, "the reduced shelter admissions (Plan B) have accounted for a little more than 80% of the decline in euthanasias and increased adoptions (Plan A) for about 20%. This is consistent with the experience of New York and Connecticut, who have a Shelter Adopters Program (Plan A equivalent) but no Low-Income Program (Plan B equivalent)." The effect on euthanasia rates of the Plan A type of program in these states have not been very significant over the past six to seven years (Marsh, personal communication, May 6, 2003).

By decreasing shelter intake and euthanasia rates, New Hampshire's program has also saved its citizens money. According to the 2001 edition of the Animal Control Management Guide, published by the International City/County Management Association (ICMA), in the six years since the program's inception, the state's eight largest shelters admitted 30,985 fewer dogs and cats than in the six years preceding the program.⁵ The ICMA estimated that New Hampshire saved \$3.2 million in impoundment costs based on a per-animal sheltering cost estimate of \$105. "The cost of the program was just over \$1 million, meaning that the state saved more than \$2.2

million in the program's first six years. Thus New Hampshire tax payers saved about \$3.23 for every dollar the state spent on the subsidized sterilization program" (ICMA, 2001, p. 37). It is an interesting comparison to note that for every \$1.00 that New Jersey spent on this program, it saved \$3.00.

NEW HAMPSHIRE STAKEHOLDER INTERVIEWS/DISCUSSIONS

Discussing Maine's overall companion animal overpopulation problem and potential solutions with stakeholders of New Hampshire's program provided me further insight into the problem and its solution. The following section present/s those stakeholder interviews/discussions.

Founder and Director of *Solution to End Overpopulation of Pets*

Attorney Peter Marsh is the Founder and Director of an organization called "Solution to End Overpopulation of Pets." This organization formed a coalition comprised of New Hampshire's various animal welfare groups and then lobbied for a state implemented, low-cost, low-income, spay/neuter program. Marsh is probably the biggest advocate of such a program and believes that it can be successful, not only in Maine, but in every state in the country. According to Marsh, "Neutering programs more than pay for themselves. It has cost us \$840,000 to operate our program for the first five years, including all veterinary fees and administrative expenses. During that time, 22,000 fewer cats and dogs have entered our shelters than in the five years before we had the program. This has saved us more than \$1.5 million dollars on impoundment costs alone, not counting the savings to municipalities from reduced animal control expenses" (Marsh, personal communication, 2002). According to Marsh, in over seven years, New Hampshire has saved \$4,095,000 in impoundment costs as compared to prior years when an average of 39,000 animals were impounded at an average cost of \$105 per animal.

Marsh believes that poverty has a huge impact on pet overpopulation. “In 1995 California’s poorest county had a euthanasia rate three times greater than the wealthiest counties. New Jersey’s wealthiest county euthanizes 2.9 cats/dogs per 1,000 people and its poorest county euthanizes 10 cats/dogs per 1,000 people.” He cites Gary Patronek’s⁷ 1994 shelter study in which 20% of the cats brought to the shelter by low-income people (people making less than \$20,000 year) were intact. “We have done a better job at getting mid- and upper-level income people to spay/neuter their pets. However, there is a huge bias against low-income people in this country. New Hampshire legislators said they (low-income people) won’t use the program. New Hampshire learned that low-income people are just as attached to their animals as the rich, they just don’t have the money” (Marsh, personal communication, 2002).

Passing legislation to implement a spay/neuter program was a two year battle for Marsh. In fact, the decision to create a shelter adoption program (Plan A) *and* a low-cost, low-income program (Plan B) was a political/legislative decision made by the activists who spearheaded the legislative campaign. These activists did not believe there was a need for the shelter adoption program in New Hampshire because of the large number of New Hampshire shelters that were already spaying/neutering their animals. In fact, they expected that the low-income program would have a much greater impact on reducing shelter euthanasia rates; however, it was their impression that it would not generate as much legislative support as Plan A. “In looking back,” Marsh states, “I think we were probably right, because the two programs packaged together into one bill survived two very close house votes and I’m sure the Shelter Adopters’ Program helped

⁷ Gary Patronek is the Dean of Tuft’s Veterinary School and the Director of it’s Animal Welfare Policy Program (see Literature Review).

us get a lot of votes, especially among conservative Republicans who controlled the New Hampshire Legislature in 1993” (Marsh, personal communication, May 5, 2003).

The first time the bill went to the legislature it lost 15 to 5 in committee. The second time, in 1993, it made it out of the committee and won 192 to 171 on the floor. Then the Governor said he would veto it. In response, Marsh and his coalition held a vigil on the State House lawn in Concord. Each shelter represented made paper collars with the names of each animal it had euthanized. This “paper collar chain” ended up being more than a mile long. In addition, from February to June (every two weeks) they aired a 30 second film, on New Hampshire cable television, of the vigil and of a young dog named JoJo being euthanized. As a result, the Governor said that though he would not sign the bill, he would not veto it either!

Once passed, the program was to be automatically repealed in three years unless it was successful. After the first year, due to the programs success, this “caveat” was rescinded. According to Marsh, “In 1992, New Hampshire euthanized 10,000 cats and 1,500 dogs. By July 1994 euthanasia came down by 10%. By 1995 the drop was greater than 30%. Every shelter in the state had lowered its rates. The least successful shelter had a euthanasia drop of 15% and the euthanasia rate has dropped every year since. In 2001, only 634 dogs were euthanized” (Marsh, personal communication, 2002).

When asked what a successful program for Maine would look like, Marsh stated that to be successful a spay/neuter program *must* be affordable and must include immunizations. In addition, it is imperative that “you build a strategic alliance with your veterinarians. Your veterinarians need to buy in to the program. New Jersey taught New Hampshire that if you

target your program just to the people who need the help, then the veterinarians will pitch in” (Marsh, personal communication, 2002). One hundred forty five animal clinics in New Hampshire have discounted their costs by 20%. The state and co-payment covers the remaining 80%. “With the state subsidy and co-payment, it is an affordable public program.” It is also very important to get dedicated money. “The program *must* be stable” (Marsh, personal communication, 2002). In response to the question of whether spay/neuter programs really should be publicly funded. Marsh responded that it is a *public* problem and therefore requires public funding.

In closing, Marsh reiterated that vets have to be involved. The veterinarians in his state said they would support the bill if they were paid fairly, they do not have to “qualify” the people, and it is targeted to low-income people.

New Hampshire’s Animal Population Control Program Director

Elizabeth Campbell, the current Director of New Hampshire’s APC Program reiterated, much of what Marsh had already told me, and claimed that New Hampshire has the lowest intake and euthanasia rates per capita in the country. She also shared some of her “talking points” with me:

- There has been a 70% drop in the euthanasia rate in New Hampshire.
- The difference is 8,000 fewer animals killed every year (20 less cats and dogs per day).
- In 1993 the number of dogs and cats euthanized in New Hampshire was 11,494; in 1999 it was 3,441.
- 30,000 fewer animals have come into shelters.

- A \$2.00 surcharge from every dog license fee goes to fund the program, and not one penny has come from the state's general fund.
- This surcharge has never increased.

It is also compelling to note that Ms. Campbell stated that she will be very happy when Maine has a program so that she “stops getting phone calls from people from Maine about obtaining vouchers” (Campbell, personal communication, July, 2002). Mainers have heard about New Hampshire's program and they call her looking for help. She said she receives “several” of these calls a month.

MAINE'S CONTROL ANIMAL POPULATION PROGRAM

In the early 1980s, Maine animal advocate Marjorie Johnstone recognized the need for financial assistance for low-income Mainers to spay/neuter their pets. Ms. Johnston donated a sum of money to this end and the Control Animal Population (CAP) program was born. The mission of the CAP program is, “To decrease the number of unwanted companion animals by advocating for, and assisting in, the spaying and neutering of dogs and cats in Maine.” The policies of the program were designed to “ensure that people who are most in need of financial assistance with the cost of spaying or neutering their pet, receive the assistance, to track how much assistance is provided, and to provide for some accountability for those who distribute the benefit to the public” (MFHS, 1998, p. 1).

The CAP program is governed by the Maine Federation of Humane Societies (MFHS), which is currently comprised of 14 of Maine's humane societies and animal shelters.⁸ The MFHS' missions are educate the public on, and promote the humane treatment of all animals. The program provides a \$25 certificate, to eligible low-income individuals, *toward* a dog/cat neuter surgery or a \$50 certificate *toward* a dog/cat spay surgery. If the cost of the procedure is greater than the value of the voucher, the pet owner must pay the rest of the cost. As with the other two programs, CAP vouchers are available to Maine citizens who can show evidence of financial need (such as recipients of Medicaid, food stamps, unemployment benefits, and fuel assistance). In addition, the CAP program allows for exceptions if shelter personnel "feel they have a worthy pet owner who requires assistance, but cannot provide any of the listed evidences of need. The CAP program certainly does not want to penalize those low-income pet owners who is not on any assistance programs" (MFHS, 1998, p. 3).

According to the CAP Program Manual, the program recognized that it can only be affective with the support and assistance of veterinarians, and that "without the willingness of veterinarians to accept the CAP certificates this program will not work" (MFHS, 1998, p. 5). To ensure a good relationship between the CAP program and the veterinarian community, in July 1998 the MFHS instituted three new initiatives to this end (p. 5):

1. CAP Information Packet for Veterinarians – This packet provides veterinarians with a policies and procedures manual for the program, sample certificates and logs to assist the veterinarian's understanding of the program. Information regarding the CAP

⁸ The number of animal shelters and rescue groups belonging to the Maine Federation of Humane Societies varies from year to year.

Administrator, a list of participating animal shelters, and any promotional materials which may be available at that time (i.e. posters and brochures) are also provided.

2. Annual or Semi-Annual CAP Newsletter – The goal of this newsletter is to keep participating veterinarians up to date on any changes to the program. It may also be sent to non-participating veterinarians to encourage them to participate. “Participating animal shelters and interested State of Maine agencies and departments will also receive the newsletter. It covers such subjects as spay/neuter statistics, new CAP policies or procedures, CAP financial information, and any Maine Federation of Humane Societies news that is pertinent to the CAP program” (MFHS, 1998, p.5).
3. Monthly Payment of CAP Bills – The MFHS Board of Directors will “maintain a bookkeeper to ensure that the bills received from veterinarians participating in the CAP program will be paid in a timely manner” (MFHS, 1998, p.5).

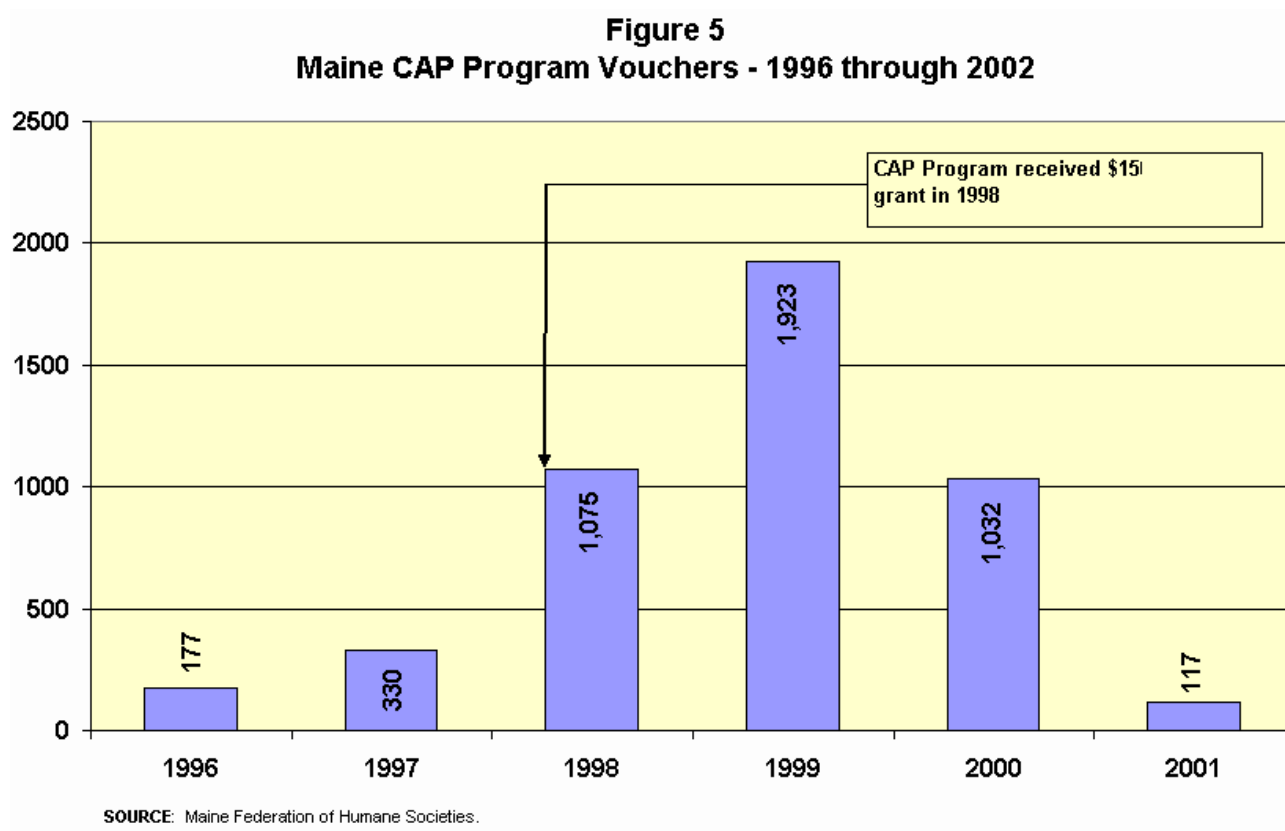
CAP certificates are issued to eligible citizens by 18 state-licensed animal shelters and can be used at 87 participating veterinarians/clinics throughout the state. For a shelter or veterinarian/clinic to participate it must be licensed in Maine, fill out a registration form, and agree to abide by the policies and procedures of the program (Appendix B). The CAP program administrator provides the shelter with 25 vouchers and a CAP log. The actual logistics of the program are as follows (MFHS, 1998):

1. An applicant obtains a CAP voucher at a participating animal shelter. The applicant must, at this time, show written proof of financial need.

2. The animal shelter records the required information in the CAP log and completes the CAP certificate. One copy of the certificate is provided to the applicant and the other copy is attached to a copy of the proof of financial need provided by the applicant. After a shelter has issued all 25 of its certificates it must send its copy of the completed vouchers and log to the program administrator. At this time the program administrator will provide the shelter with 25 more certificates and another log.
3. The applicant takes the voucher and the animal to a participating veterinarian/clinic.
4. The veterinarian performs the spay/neuter surgery and accepts the voucher as partial payment. The voucher recipient must pay for any costs not covered by the voucher.
5. The veterinarian/clinic mails the voucher to the program administrator for reimbursement, which are made on a monthly basis.

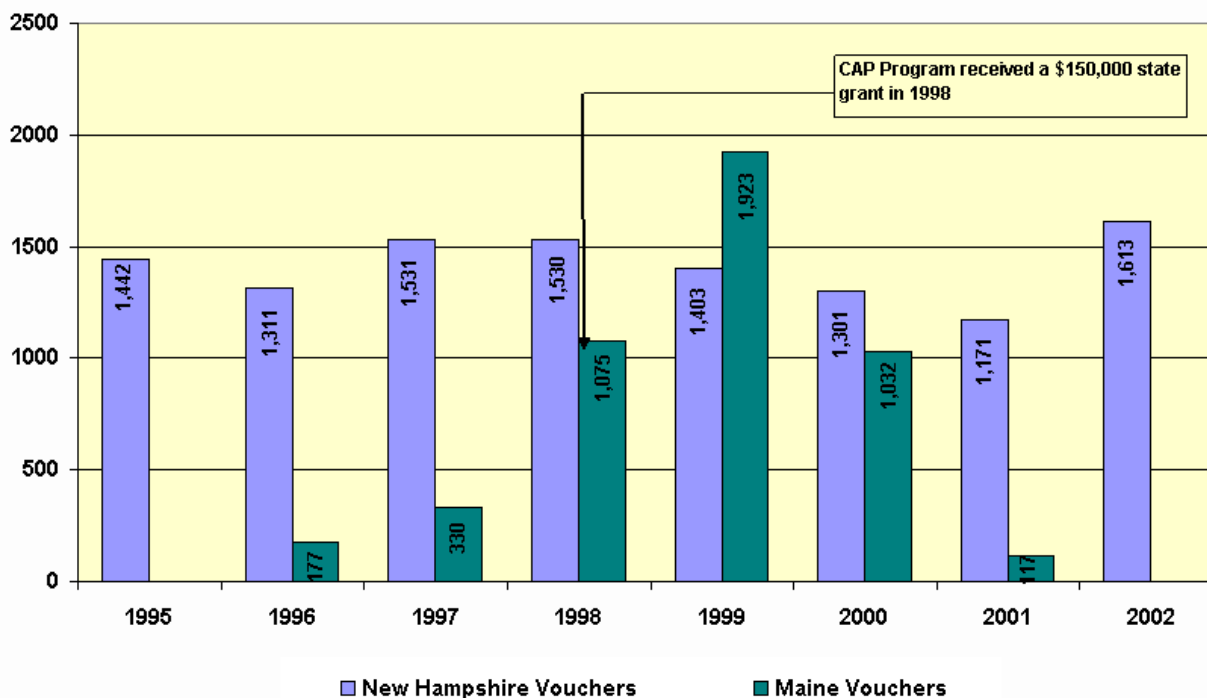
Throughout the years, the CAP program has spayed/neutered hundreds of animals. From April 1996 through March 2002, the only years for which data are available, the CAP program sterilized 4,286 cats and dogs. However, except for some minimal donations and fundraising efforts, the program had not received significant additional funding beyond Ms. Johnstone's original donation. Then, in 1998, the State of Maine's Animal Welfare Program (AWP), administered by the Department of Agriculture, Food, and Rural Resources had a "windfall," and provided a one time grant of \$150,000 to the CAP program (D. Springer, personal communication, 2002). With the additional funding, in September of 1998, the CAP program

was able to increase its efforts, and the number of animals spayed/neutered increased dramatically (Figure 5).



In 1999, the first full year of the CAP program after it received the state grant, 1,923 vouchers were provided to help low-income individuals pay for the spaying/neutering of their pets. As shown in Figure 6, this is more vouchers than New Hampshire's low-income program (Plan B) has ever provided in one year. Keeping in mind that low-income pet owners used the CAP program even though it only paid \$25 or \$50 of the cost while both New Jersey's APCP and New Hampshire's APCP program pays for all but \$10 of the cost, it is clear that the need for such a program exists in Maine. It is also clear that the old baseball adage "build it and they will come" is true for the CAP program; if such a program were to exist again, the data indicate that low-income Mainers will use it.

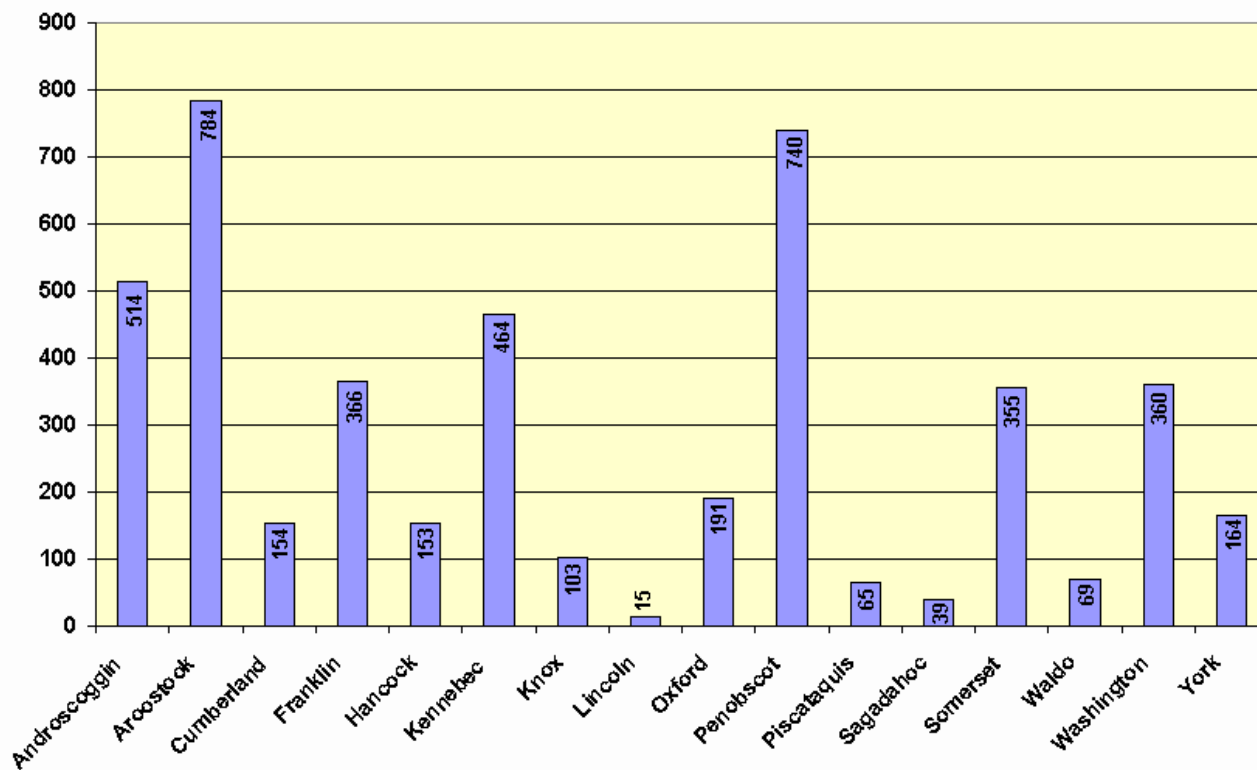
Figure 6
Maine CAP Program in Comparison to New Hampshire APCP Program - 1995 through



SOURCE: New Hampshire Federation of Humane Societies and Maine Federation of Humane Societies.

The MFHS compiled its CAP data by county in order to determine “where the need was” (MFHS, 2003) (Figure 7). Citizens of the five counties in Maine with the lowest median incomes (Washington, Piscataquis, Aroostook, Somerset, and Franklin) used 74% of the vouchers distributed by the CAP program. This is despite the fact that within these five counties only six shelters were distributing CAP vouchers. No shelters in Piscataquis County were distributing vouchers, which likely accounts for the fact that only 65 vouchers were issued in this county. In addition, only 20 veterinarians/clinics within these five counties were accepting CAP vouchers. In fact, one veterinarian/clinic conducted all 360 of the procedures completed under the CAP program in Washington county, the county with the lowest median income and the county that used the sixth most vouchers overall. Sixty seven veterinarians/clinics conducted the remaining 26% of the procedures in the remainder of the state.

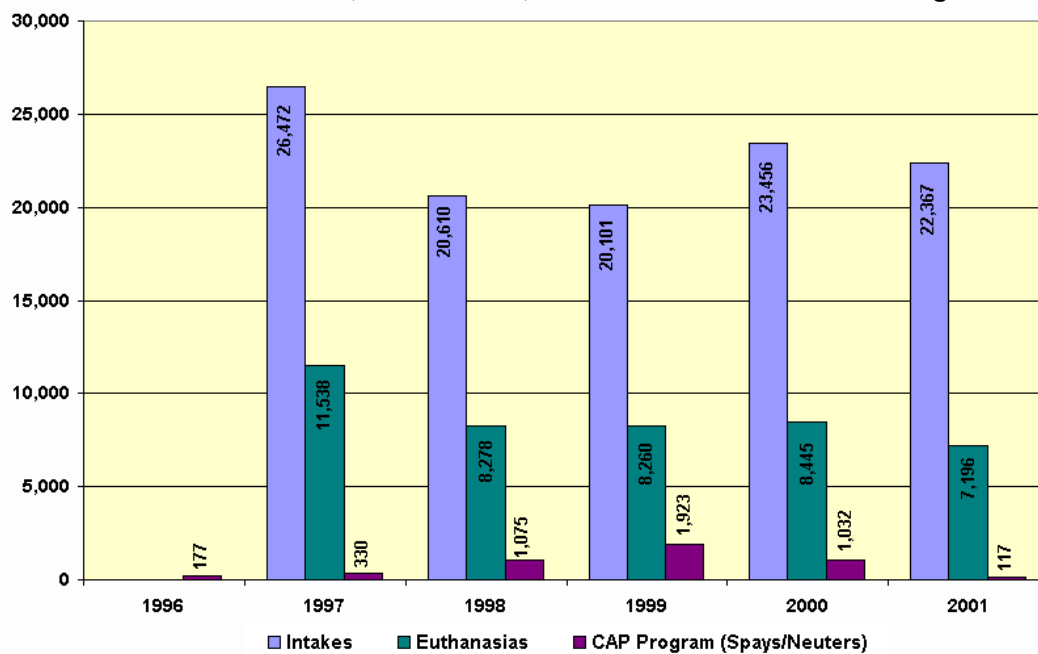
Figure 7
Maine CAP Vouchers Issued by County - 1996 through 2000



SOURCE: CAP Program.

As illustrated by Figures 8 and 9, even with the CAP program in place, Maine's shelter intake and euthanasia rates are high, especially when compared to those of New Hampshire.

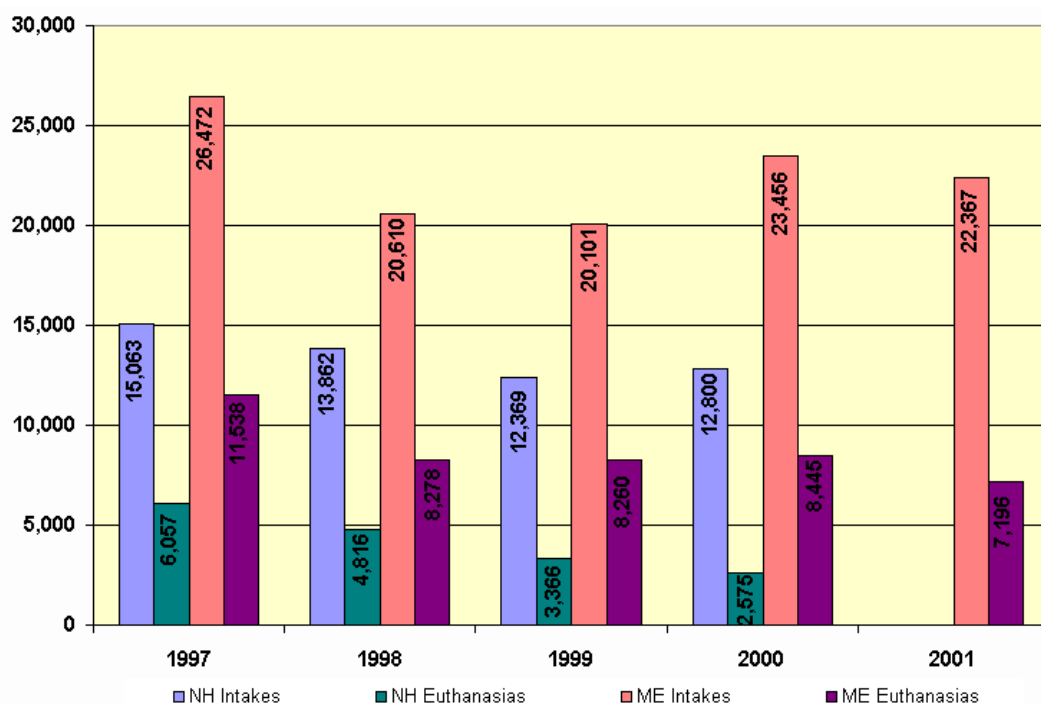
Figure 8
Maine Shelter Intakes, Euthanasias, and CAP Vouchers – 1997 through 2001



SOURCE: Maine Federation of Humane Societies.

NOTE: Euthanasia and intake data is from 18 shelters in 1997; 15 in 1998; 15 in 1999; 12 in 2000; and 15 in 2002.

Figure 9
New Hampshire and Maine Shelter Intakes and Euthanasias – 1997 through 2001



SOURCE: New Hampshire Federation of Humane Societies and Maine Federation of Humane Societies.

NOTE: Data is from approximately 95% of New Hampshire's Shelters and 18 of Maine's shelters in 1997; 15 in 1998; 15 in 1999; 12 in 2000; and 15 in 2001.

From 1997 through 2000, Maine shelters took in 113,006 cats and dogs and New Hampshire shelters took in 54,094. Maine's intake rates were 76%, 49%, 63%, and 83% higher during those years, respectively, than those of New Hampshire shelters (Table 4). During those same years, Maine shelters euthanized 43,717 cats and dogs while New Hampshire shelters euthanized 16,816. From 1997 through 2000, euthanasias rates in Maine were 90%, 72%, 145%, and 228% higher, respectively, than those of New Hampshire shelters.

Table 4
Per Cent Difference New Hampshire and Maine Intakes and Euthanasias - 1997 through 2000

Year	NH Shelter Intakes	Maine Shelter Intakes	Percent Difference Intakes	NH Shelter Euthanasias	Maine Shelter Euthanasias	Percent Difference Euthanasias
1997	15,063	26,472	76%	6,057	11,538	90%
1998	13,862	20,610	49%	4,816	8,278	72%
1999	12,369	20,101	63%	3,366	8,260	145%
2000	12,800	23,456	83%	2,575	8,445	228%
2001	No Data	22,367	Not Applicable	No Data	7,196	Not Applicable

Despite the obvious need of the CAP program, as of March 28, 2002, the program had \$4,923 remaining and the MFHS did not anticipate receiving significant additional money from fund raising efforts, individual donations or from the state (MFHS, 2002).

Maine Stakeholder Discussions

Discussions with Maine stakeholders⁹ provided me with a myriad of perspectives and further insight into the problem in Maine. No matter what their viewpoint, all stakeholders agree that too many cats and dogs are being relinquished to shelters and euthanized. The following section presents my discussions with Maine stakeholders.

⁹ In some instances, professional titles are used in lieu of names for the sake of anonymity.

Maine Federation of Humane Societies

Two MFHS board members, who are also Executive Directors of a southern Maine and a central Maine animal shelter, respectively, believe that too many cats are brought to shelters. They would like to see any state funded program dedicate 80% of program money to spay/neuter cats and 20% to spay/neuter dogs. The MFHS believes that public funding should be spent on “the true crisis that occurs in animal shelters in the State of Maine: the overwhelming number of homeless cats and kittens dying each year because there are simply too many of them” (MFHS, personal communication, 2002).

The MFHS is also concerned that the amount of money allocated for the program will be quickly used up “for the much more expensive dog spay/neuter surgeries. Judging from the three-year time frame when the MFHS administered a \$150,000 low-income, spay/neuter grant with very little public promotion of the program, we are convinced that funds will quickly become depleted and we will miss the opportunity to make a significant impact on the cat overpopulation problem that pervades all areas of Maine” (MFHS, personal communication, 2002).

When I asked if the MFHS had “run” any “statistics” to corroborate these beliefs I was told that it had not. Therefore, to assess if the 80/20 split should be part of a spay/neuter program for Maine, I further examined both the MFHS intake and euthanasia data (see Appendix A), the MFHS’ CAP program data (Appendix C), and NH’s intake and euthanasia data.

MFHS Data. MFHS data shows that there are significantly more intakes of cats at shelters and that more cats are being euthanized than dogs or “other” animals (See Appendix C). Throughout the years that I have data, 74,026 cats were taken into Maine shelters and 36,183 (49 %) of them,

were euthanized. During that same period, 38,992 dogs were taken in by Maine's shelters, and 7,534 (19%) of them were euthanized. This represents 53 % more cat intakes and 21% more cat euthanasias than dog intakes and euthanasias.

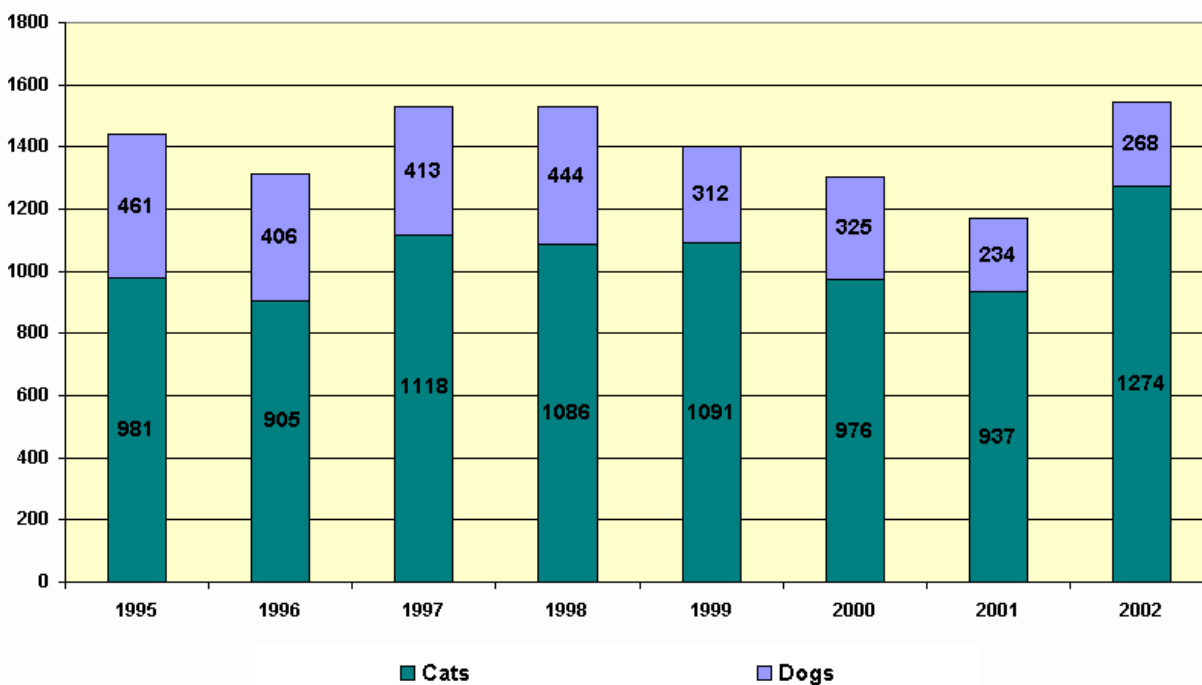
CAP Program Data. Table 5 and Appendix C are analyses of the number and type of sterilizations performed under the CAP program for the years 1996 through 2000. Table 5 illustrates the CAP program's breakdown of cat versus dog sterilizations by county. The maximum/minimum values per county show that there is a great amount of variability both between counties within the same year and between counties from year to year. It is interesting to note, however, that there is very little variability in the median values for *all* counties, with the ratio between cat and dog sterilization being approximately 76% cats to 24% dogs sterilized for all five years of data.

Table 5
Analysis of CAP Voucher Usage by Species - 1996 through 2000

	Cats Spayed/Neutered Per Year					Dogs Spayed/Neutered Per Year				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
Minimum Per County	0%	56%	50%	61%	57%	0%	0%	0%	13%	0%
Maximum Per County	100%	100%	100%	87%	100%	100%	44%	50%	39%	43%
Median	75%	74%	75%	77%	77%	25%	26%	25%	23%	23%

To gain further insight into the practicality of dedicating funds to be provided at an 80/20 split between cat and dogs spay/neuters, I looked at New Hampshire's expenditures on cats versus dogs. Figure 10 illustrates that, like Maine's CAP program, New Hampshire's program also spays/neuters far more cats than dogs.

Figure 10
New Hampshire APCP Cat and Dog Spays/Neuters - 1995 through 2002



Source: New Hampshire Department of Agriculture's Animal Population Control Program Fiscal Year Summaries, 1995 through 2002.

Also, like the CAP program, New Hampshire's program spays close to 300% more cats than dogs. In addition, since the inception of its spay/neuter program 75% of its vouchers went to spay/neuter cats and 26% went to spay/neuter dogs (see Table 5).

Table 5
New Hampshire APCP Voucher Usage by Species 1995 through 2002

Year	Total Cats and Dogs	Cats	Percent Total Cats	Dogs	Percent Total Dogs
1995	1442	981	68%	461	32%
1996	1311	905	69%	406	31%
1997	1531	1118	73%	413	27%
1998	1530	1086	71%	444	29%
1999	1403	1091	78%	312	22%
2000	1301	976	75%	325	25%
2001	1171	937	80%	234	20%
2002	1613	1274	79%	268	21%
Average	1413	1046	74%	358	26%

These data indicate that if there were a stipulation that 80% of the money in a spay/neuter program be dedicated for cats and 20% for the dogs, the program would not meet the needs of some of Maine's counties. However, if left unspecified, the *overall* number of cat and dog spays/neuters would approximate an 80/20 split and leave flexibility in the program for the variability among counties. In addition, from a free market standpoint, there is no need for a mandatory 80/20 split in a spay/neuter program for Maine or for New Hampshire. The market should determine the number of cat versus the number of dog spays/neuters.

Another, and seemingly more important concern of the MFHS with respect to a potential state run spay/neuter program, is the fact that shelters would likely be required to report their "numbers" to the state. This requirement concerns the MFHS, and shelters in general, because they are worried that if their numbers become public they will lose public support to the few "no kill"¹⁰ shelters in that state, and thus the majority of their funding would be lost. They do agree

¹⁰ A no kill shelter does not perform euthanasia on healthy animals. However, a no kill shelter also turns away animals once its capacity is reached.

that reporting is necessary; however they feel that a “third-party,” such as the MFHS, should be the one to collect and compile the numbers. Further, the identity of the reporting shelter should remain anonymous. It should be noted that the State of Maine already has two laws in place that require animal shelters maintain intake and euthanasia records for two years and allow access to these records by authorized animal welfare agents (MFHS, personal communication, 2002).

Animal Control Officers

The Animal Control Officers (ACOs) that I spoke with would also wholeheartedly support a state run, spay/neuter program. They, like shelter workers, are overwhelmed with the magnitude of the problems they are facing. Time and time again ACOs are called to a location because a pet “owner” can no longer care for the number of cats and/or dogs they have and cannot afford to spay/neuter them. These people mean well, but the situation has gotten out of their control. Had a low-income spay/neuter program been available when these folks had acquired their first animal, the ACOs would not be taking their animals from them for relinquishment to the shelter and probable euthanization (ACOs, personal communication, 2002).

One ACO I spoke with would like to see the program cover feral cats as well. These “un-owned” cats are wild in that they have had little or no human contact and therefore avoid humans. They usually live in colonies, and are inbred, and are often diseased. Often they are being fed by a concerned citizen; however, due to the cost and the difficulty in catching them, and the costs associated with sterilization, they are not spayed/neutered. ACOs are often called to the site of a feral cat “colony.” Some town’s ACOs, such as Old Orchard Beach, are not allowed to “deal” with cats unless there is a rabies situation. Often, it is the individual ACO’s

decision whether or not to deal with ferals. One ACO I spoke with tries to work with feral caregivers but does not get paid by the town to do so (ACOs, personal communication, 2002).

Board of Directors and Membership of Friends of Feral Felines

I attended a board and membership meeting of Friends of Feral Felines (FFF), a feral and stray cat rescue group based out of Portland, Maine, to discuss the concept of a state run, low-income, spay/neuter, program for Maine. The membership overwhelmingly supported the idea but wondered how a program such as New Hampshire's would directly benefit them since they, as an organization, would not qualify as a low-income individual.

It was brought up that FFF helps a lot of poor people who are overwhelmed with the number of cats they have. In most cases these cats are feral and are living in sheds or barns on their property. They are fed but are not provided any medical attention. FFF often pays for these cats to be spayed/neutered and will ask for a small donation in exchange. With a low-income, spay/neuter program in place, FFF could refer the cat owner to the state program and still assist with the trapping and transporting of the feral cats to and from the veterinarian. In addition, after the program is in place for a few years, the number of stray cats that FFF would have to deal with would, theoretically, decrease. The hope by all would be that with a program in place FFF would eventually go out of business (FFF, personal communication, 2002).

Veterinarians

The President of the Maine Veterinarian Medical Association (MVMA) indicated that the

MVMA would very much like to see a low-income, low-cost, spay/neuter program in the state. However, it would want to take part in the design of that program. In particular, the MVMA wants to ensure that (MVMA, personal communication, 2002):

- Costs are fair to the veterinarians.
- The MVMA help determine those costs.
- Veterinarian participation is voluntary.
- Veterinarians would not have to determine program eligibility.
- It would not be easy for non-eligible people to take part in the program.
- Paperwork associated with the program would not be burdensome.
- Veterinarians would not have to collect the money from the client.
- Veterinarians would be reimbursed for their services on a regular basis.

In discussions with two other veterinarians, four interesting and potentially complicating factors to designing a program came to light. One is the fact that each individual veterinary clinic has its own immunization requirements for its client animals. Almost all require the animal be current with its rabies shots, but they may also require that an animal be immunized for up to four

additional diseases.¹¹ Second, it is not uncommon for a veterinarian to run into complications during spay/neuter surgeries. These complications can add a substantial amount of time, and thus cost, to what is normally routine surgery. Third, it appears that what a northern Maine veterinarian charges for spaying/neutering an animal is substantially less than what a southern Maine veterinarian charges. Fourth, the larger the dog, the more expensive it is to operate on it¹² (Veterinarians, personal communications, 2002).

When asked if the MVMA would support funding the program through a surcharge on the rabies vaccination, which would be collected by the veterinarian and forwarded to the state, the president stated they would not. The veterinarian community does not think that the onus should fall on them to both reduce their rates be responsible for collecting revenues for the program (MVMA, personal communication, 2002).

Director of the State Animal Welfare Program

The Director of the AWP, Leslie Lichko¹³ would welcome a state run, low-income, low-cost, spay/neuter program. She agrees that companion animal overpopulation is a huge problem in the state and was unaware of the existence the CAP program. In fact, she believes that by reducing the number of unwanted cats and dogs through a spay/neuter program, the number of animal cruelty cases that her department responds to would also decrease (Lichko, personal communication, 2002).

¹¹ These include distemper, parvo, corona, and bordetella for dogs and distemper, bordetella, leukemia, and FIP for cats.

¹² This size differential is only a factor in dogs; a Toy Poodle costs less to spay/neuter than a Great Dane.

¹³ Leslie Lichko was the Director of the Animal Welfare Program at the time of this interview in the fall of 2002; she has since resigned.

The Director of the AWP pointed out that the state, through the AWP, has the statutory authority to implement a spay/neuter program and that, as the head of the AWP, she would be willing to administer such a program. The AWP does not, however, have the funds. Although a spay/neuter program such as New Hampshire's would be beneficial to the state, the AWP is currently facing both a financial and credibility crisis. Three full-time and two part-time state humane agents are tasked with investigating over 500 animal cruelty cases a year and with inspecting all of Maine's licensed shelters, breeders, and pet shops. With hardly enough money to fund the program as it now exists, adding the burden of administering a spay/neuter program would be nearly impossible (Lichko, personal communication, 2002).

FUNDING AN ANIMAL POPULATION CONTROL PROGRAM FOR MAINE

The fact that in 1998 the AWP was able to provide the CAP program a \$150,000 one-time grant, literally, because it had a "windfall," appears extraordinary in today's economy. In fact, finding funding for a public program, especially one that helps animals, is a difficult endeavor even in the best of economic times. "The budget is the primary policy instrument of modern government. . . By defining the nature and scope of public sector activity, the government budget defines who may benefit from public expenditures and just as importantly who must pay." (La Plant, 2000, p. 1). Knowing the inherent difficulties of successfully obtaining funding for a spay/neuter program, I assessed how Maine's spay/neuter program could be funded in the context of Maine's current (2002/2003) economic and political condition. It is for this reason, in conjunction with my belief that funding for low-income pet owners would provide "the biggest bang for the buck," that I did not design a spay/neuter program that would include shelter adoptions. It is

also for this reason that I did not recommend one of the more equitable funding sources that were available as well.

I considered several funding mechanisms for the low-cost, low-income spay/neuter program.

Table 7 lists these mechanisms and the following discussion provides an abbreviated tax policy analysis of each mechanism

Table 7
Potential Funding Sources

Funding Source	Neutral	Equitable	Uniform	Certain	Efficient	Burdensome	Productive	Likelihood of Occurring
Dog License Fee	Yes	No	Yes	Yes	Yes	No	Yes	High
Pet Food Tax (wholesale level)	Yes	Yes	Yes	Yes	Yes	No	Yes	Low
Rabies Immunization Fee	Unknown	Yes	Yes	Yes	Yes	No	Yes	Low
Cat License Fee	Unknown	Yes	Yes	Yes	Yes	No	Yes	Low

Increase dog licensing fee. Increasing the dog licensing fee to pay for a spay/neuter program is not necessarily the best funding mechanism from a tax policy perspective; however, it is the most likely to occur given our current economic situation. This fee would not be equitable because it places the whole burden of the program, which would fund the spaying/neutering of both dogs *and* cats, solely on dog owners. In addition, it could be viewed as burdensome because it would primarily affect the poor, who are, ironically the ones it is supposed to help. However, owning a dog is a choice, not a necessity; therefore, anyone could choose not to own a dog. Also, a dog licensing fee would be an efficient means of taxation, even though state AWP estimates that only 50% of Maine's approximately 260,000 dogs are licensed each year (ME AWP; 2002, p.1).

That being said, dog licensing fees have not increased in Maine in over 25 years. Had the fees been adjusted for the rise in the cost of living they would currently be \$13.89 for an intact dog and \$7.42 for a spayed/neutered dog. This is a much greater increase than my proposed \$2.00 increase. In addition, the mechanism is already in place to collect these fees and distribute the money, and as stated above, owning a dog is not a necessity and it is illegal to own an unlicensed dog. It would also be considered a “productive” fee in that it could provide enough money to fund its specific intent.

Implement cat/dog pet food tax (wholesale level). Like the dog licensing fee, this tax could be considered burdensome because it would be placed on the poor pet owners as well as the wealthy ones. Hopefully the tax would be so small that once it is passed on to the consumer it would not affect people’s buying behavior and thus it would be a neutral tax. A tax on cat/dog pet food would be equitable in the sense that both cat and dog owners would be the ones to fund the program. It would be productive in that it could provide enough money to fund its specific intent. It is, however, very unlikely that a tax increase would pass at this time. Our new governor is committed not to raise taxes and a proposal to do so in order to fund an animal welfare program would generate much criticism and political upheaval.

Surcharge on rabies immunizations. There is currently a law on Maine’s “books” that requires veterinarians to purchase their rabies certificates from the state. In the past, these certificates were typically purchased in lots or booklets of 200 at a cost of approximately \$20.00. With the onset of personal computers and veterinary business focused software, veterinarians began printing their own rabies certificates and the state allowed this to happen. Today, virtually no veterinarians purchase their rabies certificates from the state.

In 2002, approximately 132,000 dogs were licensed in the state and therefore immunized for rabies. The AWP estimates that there are 414,000 owned cats in Maine (AWP, 2002, p. 7) but it is not now known how many are immunized against rabies. Assuming that only half the owned cats are immunized for rabies,¹⁴ that some veterinarians use a two-year vaccine and that \$1.00 of the fee would stay with the veterinarians for collection of the fee, an approximate \$3.00 fee on rabies vaccinations would easily fund the program.

Of all of the funding sources this fee would be the best for many reasons. It would be equitable, with cat and dog owners paying the fee and potentially reaping the benefit from that fee; its revenues would easily fund the spay/neuter program; it would be easy to administer by the veterinarian community; and the increase is not that great to be burdensome to the pet owner (though it could be burdensome to those that own multiple pets). A potential drawback to this funding mechanism is that people may decide not immunize their cat or dog for rabies if this fee were in effect.

Although this appears to be the best funding mechanism, veterinarians have indicated that they would not support it. Two years ago, and again this year, the AWP attempted to increase funds to its program using this method. The result was that the veterinarian community came out in force against it, citing public health and cost issues. The spay/neuter program is completely dependent on veterinarian cooperation; therefore, any attempt at funding that program through this method would be potentially devastating to the success of program.

¹⁴ It is against the law to own an un-immunized (rabies) cat.

Implement cat licensing fees. This funding mechanism would require that cats, like dogs, be licensed at the municipal level. The AWP estimates that there are approximately 414,000 cats in Maine. Therefore, a small fee on both the cat and dog license would, like the rabies vaccination, easily fund the program. This funding mechanism, in conjunction with the dog license fee, would be a fair way to fund the program and easy to administer since it could be administered in the same manner as the dog license. However, also like the rabies vaccination fee, a bill was introduced to the legislature two years ago which would require that cats be licensed. This bill was introduced for public health and not funding reasons. It was soundly defeated in committee, with its main opponents being municipalities, animal control officers, certain animal welfare groups, and farmers. They cited enforcement issues and the need for special provisions for feral cat colonies and for “barn” cats.

A NEW PROGRAM FOR MAINE

Based on funding issues, information obtained during my literature review, New Hampshire and New Jersey’s spay/neuter programs, “lessons learned” from the MFHS’ CAP program, discussions with animal welfare advocates, and the specific needs in Maine, an easily implemented and administered “best practice” “Companion Animal Population Control Program” for the State of Maine was identified. This program does not include the spaying/neutering of shelter animals because many of Maine’s largest shelters already provide that service. The primary components of this “best practices” program are identified below.

PROGRAM GOALS

The goals of the Maine Companion Animal Population Control Program are to:

- Decrease shelter intakes and euthanasias
- Decrease the rabies risk
- Decrease the occurrence of dog bites¹⁵
- Decrease community and state animal control costs
- Decrease the number of feral cats

Program Administration

The state's AWP will administer the program and will be responsible for the following:

- contracting with veterinarians
- determining citizen eligibility
- collecting co-payments
- reimbursing veterinarians

¹⁵ Intact animals are more than two times more likely to bite than sterilized animals; in fact, according to the International City/County Management Association, unspayed/unutered dogs account for 95 percent of all fatal maulings.

- reporting to the state

Eligibility

To be eligible for this program, one must be an adult citizen of the State of Maine and must be on public assistance (with one exception). Public assistance includes such programs as Medicaid, Supplemental Security Income, Temporary Assistance to Needy Families, and/or food stamps. In addition, low-income individuals who are not on public assistance but would qualify for food stamps if they applied will also be eligible. The recipient of the spay/neuter voucher must make a \$10 co-payment to the AWP toward the costs of the program.

Veterinary Participation/Fees

The participation of Maine's veterinarians is paramount to the success of this program. Recognizing this, I spoke with a representative of the President of the MVMA. He indicated that the MVMA would likely support the concept of a low-income spay/neuter program provided that it has input into the final design of the program. In light of this, it should be recognized that some minor modifications may need to be made to this proposed program, but it is expected that this basic outline will remain unchanged.

Veterinarian participation in the program would be totally voluntary. For a veterinarian to participate, he or she must be licensed and practicing in the state of Maine and must agree to pre-set fees. These fees would be negotiated with the MVMA on a bi-annual basis and would cover the cost of the spay/neuter surgery, a rabies vaccine, and the cost of any vaccines required for admission into the veterinary hospital. The pet owner would pay all other costs.

Cost

Based on discussions with the MVMA and with New Hampshire's spay/neuter program administrator, an average range for the cost of the program using two set fees, \$75 and \$85 per animal was estimated. Based upon the number of surgeries performed when Maine's poorly publicized CAP program was in place, this estimate assumes that approximately 2,500 surgeries will be performed per year:

$$\mathbf{\$75/surgery \times 2,500 \text{ surgeries} = \$187,500/year}$$

$$\mathbf{\$85/surgery \times 2,500 \text{ surgeries} = \$212,500/year}$$

In addition, the approximately \$25,000 that would be returned to the state as a result of the \$10 co-payment could be used to pay the salary and benefits for a part-time (20 hours per week) program administrator.

Program Promotion

For any public program to be successful the public must know about it and it must be easily accessible to potential recipients. In addition to the MVMA, the endorsement of Maine's many animal welfare organizations would help promote this program. These include the animal shelters, the MFHS, breed rescue, and other animal rescue groups. In addition, the AWP and the Department of Human Services would also promote this program.

PERFORMANCE MEASUREMENT

Performance measurement is necessary to determine the success of the program and to assess if any changes should be made. Because not all of the animal shelters in Maine have the

computers, programs, time, or money necessary to implement a sophisticated measurement program, performance measurement must be as simple, yet as effective as possible. However, the shelters in the state should be required to report their intake and euthanasia statistics using a standardized format.

Shelter intakes and euthanasias are one objective parameter that can be used to measure the performance of this program. It should be noted that the State of Maine already has two laws in place that require animal shelters to maintain intake and euthanasia records and to allow access to these records by authorized animal welfare agents. Because of these existing laws, no legal changes should be necessary.

EVALUATION CRITERIA

In addition to enacting general accounting practices to track program revenue and costs, it will be necessary for Maine's shelters to track their "numbers." To be considered successful, Maine's program should result in a decrease of shelter intake and euthanasia rates within two to three years, as appears to have happened in New Hampshire.

CONCLUSION

Unlike New Hampshire's and New Jersey's innovative spay/neuter programs, Maine only provided a one time grant toward an already existing, but floundering program. This "band aid" approach to the problem of animal overpopulation is and was an ineffective and temporary solution to an ongoing problem.

An analysis of New Jersey's and New Hampshire's effectual, and Maine's ineffectual spay/neuter programs, provided the information necessary to identify what successful program for Maine would potentially consist of. A major component of the programs is adequate funding. When funding was available Maine's program was successful in that many people used it. New Hampshire's and New Jersey's programs are well funded and have produced positive results.

Maine's program, like New Hampshire's program, could be funded by increasing the dog licensing fee by a nominal amount. The current fee to license a spayed/neutered dog is \$4.00 and an intact dog is \$7.50.¹⁶ In 2002, Mainers licensed 132,029 dogs.¹⁷ Of that, 107,762 were spayed/neutered and 24,267 were not (AWP, 2002) Increasing the license fee by just \$2.00 would provide approximately \$264,058 to the program. If the program costs approximately \$212,500 per year for veterinarian's fees, this would leave approximately \$40,558 for promotion, forms, etc.

The program would also require the participation of Maine's veterinarians, who would offer their services, on a voluntary basis and at a discounted rate, and of shelters who would report their intake and euthanasia numbers so that the results of the program could be measured in a meaningful way. In addition, the public would need to be educated about the benefits of spaying/neutering, about the existence of the program, as well as ways in which to access the program. It must be easily accessible and understandable to all eligible Mainers.

¹⁶ These fees have not increased in at least the last 25 years.

¹⁷ It should be noted that the AWP estimates that only 50% of the owned dogs in Maine are licensed. An effort by the state and municipalities to license more dogs could substantially increase the funding.

The State of Maine has an economic and moral interest in solving the problem of companion animal overpopulation. With a well-funded, well-designed, companion animal population control program, Maine, like New Hampshire and New Jersey before it, can make great strides in solving this problem and its associated problems.

References

- Animal Welfare Program (2002). Sources of revenue for the animal welfare program [Presentation]. Augusta, ME: Author.
- Babbie, E. (1999). The basics of social research. California; Wadsworth Publishing Company.
- Brestrup, C. (1997). Disposable animals: ending the tragedy of throwaway pets. Texas; Camino Bay Books.
- DiGiacomo, N., Arluke, A., Patronek, G. J. (1998). Surrendering pets to shelters; the relinquisher's perspective. Anthrozoos 11(1), 41-51.
- Frank, J. (2001). The economics, ethics, and ecology of companion animal overpopulation and a mathematical model for evaluating the effectiveness of policy alternatives. Unpublished doctoral dissertation, Rensselaer Polytechnic Institute, Troy, New York..
- Fennel, L (1999). Beyond overpopulation: a comment on Zawistowski et. al. and Salman et al. Journal of Applied Animal Welfare Science 2(3), 217-228.
- International City/County Management Association (2001). Animal control management. Washington; International City/County Management Association.
- Johnson, K. (April, 1997). A survey of changes in HSSCV shelter population from 1994 to 1996: do free spay/neuter vouchers work. National Pet Alliance. Retrieved on February 22, 2001 from <http://www.fanciers.com/npa/do-vouchers-work.html>
- Maine Federation of Humane Societies (1998). Manual for the Marjorie Johnstone control animal population program of the Maine Federation of Humane Societies [Manual]. ME; Author.
- New Hampshire Department of Agriculture, Markets, and Food (1996). Animal Population Control Program Fiscal Year 1995 Summary [Report]. NH; Author.
- New Hampshire Department of Agriculture, Markets, and Food (1997). Animal Population Control Program Fiscal Year 1996 Summary [Report]. NH; Author.
- New Hampshire Department of Agriculture, Markets, and Food (1998). Animal Population Control Program Fiscal Year 1997 Summary [Report]. NH; Author.
- New Hampshire Department of Agriculture, Markets, and Food (1999). Animal Population Control Program Fiscal Year 1998 Summary [Report]. NH; Author.
- New Hampshire Department of Agriculture, Markets, and Food (2000). Animal Population Control Program Fiscal Year 1999 Summary [Report]. NH; Author.
- New Hampshire Department of Agriculture, Markets, and Food (2001). Animal Population Control Program Fiscal Year 2000 Summary [Report]. NH; Author.

New Hampshire Department of Agriculture, Markets, and Food (2002). Animal Population Control Program Fiscal Year 2001 Summary [Report]. NH; Author.

New Hampshire Department of Agriculture, Markets, and Food (October, 2000). Veterinarian Agreement [Form]. NH; Author.

New Hampshire Department of Agriculture, Markets, and Food (October, 2000). Veterinarian Agreement [Form]. NH; Author.

New Hampshire Federation of Humane Societies (2000). Shelter intakes/euthanasias from 1988 through 2000 [Graph]. NH; Author.

New Hampshire Legislature (1994). Title XL; agriculture, horticulture and animal husbandry, chapter 437-a, animal population control [Electronic Version]. Retrieved July 10, 2002, from <http://www.gencourt.state.nh.us/ras/html//XL.437-1/A/437-A-s.html>

New Jersey Department of Health and Senior Services (2001). Report to the Legislature [Report]. NJ; Author.

New Jersey Department of Health and Senior Services (October 2001). Report to the legislature on the animal population control program for the period July 1, 1999 through June 30, 2000 [Report]. NJ: Author.

New Jersey Department of Health and Senior Services (January, 2002). Letter from Robert Monyer, coordinator health projects [Letter]. NJ: Monyer.

Patronek, G. J., Glickmean, L.T. (1995). Development of a model for estimating the size and dynamics of the pet dog population. Anthrozoos VII; 25-39.

Patronek, G. J., Glickmean, L. T., Beck, A. M., McCabe, G. P., Ecker, C. (1996a). Risk factors for relinquishment of cats to an animal shelter. Journal of the American Veterinary Medical Association. (Vol. 209, No. 30).

Patronek, G. J., Glickmean, L. T., Beck, A. M., McCabe, G. P., Ecker, C. (1996b). Risk factors for relinquishment of dogs to an animal shelter. Journal of the American Veterinary Medical Association. (Vol. 209, No. 3).

**Table A1
Maine Federation of Humane Societies Survey - 1997**

1997	Intake			Cats		Dogs		Adoptions			Euthanasia			Return to Owner			
Facility	Total	Cat	Dog	Other	Stray	Owner	Stray	Owner	Cat	Dog	Other	Cat	Dog	Other	Cat	Dog	Other
1	3,916	2,522	1,211	161	1,671	873	802	409	1,460	482	35	888	188	74	74	490	10
2	738	448	261	29	208	240	133	128	177	98	29	232	86	0	19	79	0
3	64	15	50	0	12	2	10	40	2	9	0	10	1	0	2	40	0
4	48	8	40	0	8	0	30	10	8	20	0	0	0	0	0	10	0
5	197	0	197	0	0	0	179	18	0	189	0	0	2	0	0	6	0
6	1,078	618	460	0	327	291	207	253	444	304	0	134	20	0	13	118	0
7	3,332	2,067	1,158	107	1,062	1,005	608	550	954	618	57	1,130	171	28	17	373	4
8	576	292	270	14	254	38	221	49	249	154	5	11	6	0	8	138	3
9	2,629	1,736	893	0	1,249	487	603	290	451	365	0	1,254	256	0	44	280	0
10	668	328	340	0	328	0	340	0	184	147	0	134	33	0	10	160	0
11	100	28	72	0	22	6	65	7	3	5	0	3	0	0	1	57	0
12	145	83	62	0	19	64	53	9	9	19	0	74	12	0	0	21	0
13	300	174	126	0	136	38	94	32	152	105	0	43	6	0	3	30	0
14	498	212	281	5	279	2	208	4	128	105	0	114	42	0	1	60	0
15	3,497	2,329	937	231	1,239	1,090	550	387	622	336	70	1,670	320	69	30	245	4
16	5,811	3,817	1,933	61	307	3,510	203	1,730	1,158	1,022	42	2,659	911	19	8	77	1
17	32	32	0	0	32	0	0	0	0	0	0	15	0	0	2	0	0
18	3,520	2,201	1,237	69	1,179	1,022	713	524	1,199	695	69	956	157	6	46	385	7
Total	27,149	16,910	9,528	677	8,332	8,668	5,019	4,440	7,200	4,673	307	9,327	2,211	196	278	2,569	29

**Table A2
Maine Federation of Humane Societies Survey - 1998**

1998	Intake				Cats		Dogs		Adoptions			Euthanasia			Return to Owner		
Facility	Total	Cat	Dog	Other	Stray	Owner	Stray	Owner	Cat	Dog	Other	Cat	Dog	Other	Cat	Dog	Other
1	758	529	224	5	288	241	126	98	175	97	5	321	51	0	11	74	
2	28		28				8	20		129			3			8	
3	3,224	2,101	988	135	960	1,141	666	322	621	424	61	1,398	258	36	43	287	15
4	14	14				14											
5	522	251	268	3	229	22	172	96	219	172	5	24	5	0	9	107	
6	3,167	1,909	1,120	138	851	1,058	555	565	938	650	91	903	127	44	37	343	6
7	39	9	30		9		30			4		8	1		1	25	
8	141	86	55		54	32	15	40	82	52		4	0		0	3	
9	2,676	1,741	935		1,312	429	636	299	660	470		1,039	168		27	292	
10	121	36	84	1	36		84		18	14	1	6	1	0	12	69	
11	489	302	187		202	100	151	36	321	101		14	6		2	88	
12	35		35					35		55			2				
13	803	452	346	5					227	246	2	213	77	3	5	44	
14	3,843	2,313	1,368	162	1,321	992	944	424	1,569	560	56	707	151	36	103	622	65
15	5,261	3,391	1,808	62	565	2,826	446	1,362	1,330	881	24	2,047	744	34	14	183	4
Total	21,121	13,134	7,476	511	5,827	6,855	3,833	3,297	6,160	3,855	245	6,684	1,594	153	264	2,145	90

**Table A3
Maine Federation of Humane Societies Survey - 1999**

1999	Intake				Cats		Dogs		Adoptions			Euthan			Return to Owner		
Facility	Total	Cat	Dog	Other	Stray	Owner	Stray	Owner	Cat	Dog	Other	Cat	Dog	Other	Cat	Dog	Other
1	655	437	202	16	270	167	108	94	157	76	13	253	66	3	12	58	
2	30		30				8	22		106			4			8	
3	3,241	1,998	1,120	123	945	1,053	652	468	663	525	61	1,325	288	48	18	271	2
4	7	7				7											
5	468	225	231	12	200	25	177	54	175	133	4	7	9	0	16	115	
6	3,189	1,836	1,196	157	798	1,039	568	628	1,085	687		765	115	30	18	387	12
7	16	5	11		5		11					5	1			10	
8	156	99	57		60	39	20	37	96	48		3	3			6	
9	2,459	1,537	922		1,204	333	655	267	673	437		797	156		29	319	
10	98	44	54		44		49	5	25	9		19	5			40	
11	538	391	192		314	77	170	22	260	80		81	2		7	97	
12	55		55				20	35		42			3				
13	698	417	276	5	374	43	244	32	218	111	4	238	59		7	95	1
14	3,930	2,528	1,240	162	1,629	899	856	384	1,771	543	151	539	151	36	105	482	42
15	5,069	3,490	1,546	33	631	2,859	405	1,141	621	853	28	2,852	514	4	17	179	1
Total	20,609	13,014	7,132	508	6,474	6,541	3,943	3,189	5,744	3,650	261	6,884	1,376	121	229	2,067	58

**Table A4
Maine Federation of Humane Societies Survey - 2000**

2000	Intake				Cats		Dogs		Adoptions			Euthanasia			Return to Owner		
Facility	Total	Cat	Dog	Other	Stray	Owner	Stray	Owner	Cat	Dog	Other	Cat	Dog	Other	Cat	Dog	Other
1	1,351	827	524		541	286	109	415	794	433		476	104		24	249	2
2	4,439	2,880	1,407	152	1,758	1,122	821	586	1,978	610	117	666	193	78	136	604	46
3	3,388	2,124	1,142	122	1,098	1,026	708	434	636	514	80	1,433	263	17	22	350	5
4	3,044	2,057	915	72	1,364	693	619	296	700	443	42	540	19	24	55	302	6
5	91	36	55	0	30	6	49	6	18	5	0	5	0	0	2	43	0
6	3,098	1,947	955	196	894	1,053	459	496	1,189	574	123	688	89	75	17	307	9
7	735	467	268		449	18	231	37	164	138		284	43		11	84	
8	153	98	55		40	58	13	42	95	53		3	2				
9	506	316	190		316		190		502	336		82	22		5	84	
10	451	293	158		190	103	99	59	147	62		126	39		15	57	
11	4,563	3,076	1,423	64	587	2,489	398	1,025	1,150	743	55	1,907	484	6	19	196	3
12	2,276	1,498	746	32	1,151	347	507	239	589	416	27	900	77	2	20	262	1
Total	24,095	15,619	7,838	638	8,418	7,201	4,203	3,635	7,962	4,327	444	7,110	1,335	202	326	2,538	72

**Table A5
Maine Federation of Humane Societies Survey - 2001**

2001	Intake				Cats		Dogs		Adoptions			Euthanasia			Return to Owner		
Facility	Total	Cat	Dog	Other	Stray	Owner	Stray	Owner	Cat	Dog	Other	Cat	Dog	Other	Cat	Dog	Other
1	5,020	3,743	1,260	17	638	3,105	275	985	1,516	803	12	2,208	315	4	19	142	1
2	2,968	1,896	867	205	938	958	404	463	1,308	520	143	598	80	51	19	278	3
3	4,420	2,637	1,406	377	1,471	1,166	772	634	1,990	701	207	736	159	153	97	579	17
4	3,073	2,051	1,022	112	1,082	969	574	448	770	465	73	1,246	248	24	34	296	3
5	400	400	-	-	300	100	-	-	265	-	-	6	-	-	7	-	0
6	64	16	48	1	12	4	48	0	10	4	1	4	0	0	2	44	0
7	6	-	6	-	-	-	-	6	-	1	-	-	-	-	-	-	-
8	470	312	157	1	286	26	143	14	165	83	-	147	23	0	2	41	0
9	436	264	172	0	211	53	132	40	149	65	-	108	38	0	7	70	0
10	16	-	16	-	-	-	4	12	-	120	-	-	2	-	-	4	-
11	57	2	55		2	-	55	-	-	53	-	-	2	-	-	-	-
12	267	210	57	-	90	120	7	50	206	56	-	0	0	0	0	0	0
13	965	551	414	-	342	209	258	156	-	-	-	57	6	-	7	161	-
14	2,123	1,372	751	-	791	581	395	356	-	-	-	-	-	-	-	-	-
15	2,682	1,895	787	-	-	-	-	-	727	343	-	1,068	145	-	60	282	-
Total	22,967	15,349	7,018	713	6,163	7,291	3,067	3,164	7,106	3,214	436	6,178	1,018	232	254	1,897	24

Table C1
CAP Program
Animals Spayed/Neutered by County
April 1, 1996 through March 31, 1997

COUNTY	CATS								DOGS								CATS AND DOGS	
	SPAYED		NEUTERED		Total S/N	Total Cost	% Total S/N	% Total Cost	SPAYED		NEUTERED		Total S/N	Total Cost	% Total S/N	% Total Cost	Total S/N	Total Cost
	Spayed	Cost \$27 Each	Neutered	Cost \$15 Each					Spayed	Cost \$30 Each	Neutered	Cost \$15 Each						
Androscoggin	10	\$270	4	\$60	14	\$330	82%	85%	1	\$30	2	\$30	3	\$60	18%	15%	17	\$390
Aroostook	6	\$162	4	\$60	10	\$222	56%	50%	7	\$210	1	\$15	8	\$225	44%	50%	18	\$447
Cumberland	2	\$54	1	\$15	3	\$69	75%	70%	1	\$30	0	\$0	1	\$30	25%	30%	4	\$99
Franklin	7	\$189	2	\$30	9	\$219	75%	74%	2	\$60	1	\$15	3	\$75	25%	26%	12	\$294
Kennebec	15	\$405	7	\$105	22	\$510	69%	65%	8	\$240	2	\$30	10	\$270	31%	35%	32	\$780
Oxford	0	\$0	0	\$0	0	\$0	0%	0%	3	\$90	1	\$15	4	\$105	100%	100%	4	\$105
Penobscot	25	\$675	6	\$90	31	\$765	84%	86%	2	\$60	4	\$60	6	\$120	16%	14%	37	\$885
Piscataquis	3	\$81	0	\$0	3	\$81	100%	100%	0	\$0	0	\$0	0	\$0	0%	0%	3	\$81
Sagadahoc	3	\$81	2	\$30	5	\$111	83%	79%	1	\$30	0	\$0	1	\$30	17%	21%	6	\$141
Sommerset	10	\$270	7	\$105	17	\$375	68%	69%	3	\$90	5	\$75	8	\$165	32%	31%	25	\$540
Waldo	2	\$54	0	\$0	2	\$54	67%	64%	1	\$30	0	\$0	1	\$30	33%	36%	3	\$84
Washington	3	\$81	7	\$105	10	\$186	91%	93%	0	\$0	1	\$15	1	\$15	9%	7%	11	\$201
York	2	\$54	0	\$0	2	\$54	40%	47%	1	\$30	2	\$30	3	\$60	60%	53%	5	\$114
Subtotals	88	\$2,376	40	\$600	128	\$2,976	72%	72%	30	\$900	19	\$285	49	\$1,185	28%	28%	177	\$4,161

Range	Min:	0%
	Max:	100%
	Median:	75%

RANGE	Min:	0%
	Max:	100%
	Median:	25%

**Table C2
CAP Program
Animals Spayed/Neutered by County
April 1, 1997 through March 31, 1998**

COUNTY	CATS								DOGS								CATS AND DOGS	
	SPAYED		NEUTERED		Total S/N	Total Cost	% Total S/N	% Total Cost	SPAYED		NEUTERED		Total S/N	Total Cost	% Total S/N	% Total Cost	Total S/N	Total Cost
	Total	Cost (\$30 Each)	Total	Cost (\$15 Each)					Total	Cost (\$30 Each)	Total	Cost (\$15 Each)						
Androscoggin	13	\$390	10	\$150	23	\$540	70%	68%	7	\$210	3	\$45	10	\$255	30%	32%	33	\$795
Aroostook	25	\$750	10	\$150	35	\$900	69%	69%	11	\$330	5	\$75	16	\$405	31%	31%	51	\$1,305
Cumberland	0	\$0	5	\$75	5	\$75	83%	71%	1	\$30	0	\$0	1	\$30	17%	29%	6	\$105
Franklin	4	\$120	6	\$90	10	\$210	71%	64%	4	\$120	0	\$0	4	\$120	29%	36%	14	\$330
Hancock	5	\$150	4	\$60	9	\$210	100%	100%	0	\$0	0	\$0	0	\$0	0%	0%	9	\$210
Kennebec	15	\$450	13	\$195	28	\$645	78%	78%	4	\$120	4	\$60	8	\$180	22%	22%	36	\$825
Lincoln	2	\$60	0	\$0	2	\$60	100%	100%	0	\$0	0	\$0	0	\$0	0%	0%	2	\$60
Oxford	3	\$90	1	\$15	4	\$105	80%	78%	1	\$30	0	\$0	1	\$30	20%	22%	5	\$135
Penobscot	49	\$1,470	27	\$405	76	\$1,875	77%	76%	17	\$510	6	\$90	23	\$600	23%	24%	99	\$2,475
Piscataquis	5	\$150	0	\$0	5	\$150	56%	59%	3	\$90	1	\$15	4	\$105	44%	41%	9	\$255
Sagadahoc	2	\$60	0	\$0	2	\$60	67%	80%	0	\$0	1	\$15	1	\$15	33%	20%	3	\$75
Sommerset	18	\$540	10	\$150	28	\$690	74%	71%	9	\$270	1	\$15	10	\$285	26%	29%	38	\$975
Waldo	5	\$150	2	\$30	7	\$180	100%	100%	0	\$0	0	\$0	0	\$0	0%	0%	7	\$180
Washington	6	\$180	5	\$75	11	\$255	73%	77%	1	\$30	3	\$45	4	\$75	27%	23%	15	\$330
York	2	\$60	0	\$0	2	\$60	67%	80%	0	\$0	1	\$15	1	\$15	33%	20%	3	\$75
Subtotals	154	\$4,620	93	\$1,395	247	\$6,015	75%	74%	58	\$1,740	25	\$375	83	\$2,115	25%	26%	330	\$8,130

Range	Min:	56%
	Max:	100%
	Median:	74%

Range	Min:	0%
	Max:	44%
	Median:	26%

Table C3
CAP Program
Animals Spayed/Neutered by County
April 1, 1998 through March 31, 1999

COUNTY	CATS								DOGS								CATS AND DOGS	
	SPAYED		NEUTERED		Total S/N	Total Cost	% Total S/N	% Total Cost	SPAYED		NEUTERED		Total S/N	Total Cost	% Total S/N	% Total Cost	Total S/N	Total Cost
	Total	Cost (\$27 Each)	Total	Cost (\$15 Each)					Total	Cost (\$30 Each)	Total	Cost (\$15 Each)						
Aroostook	80	\$3,636	53	\$1,249	133	\$4,885	72%	72%	31	\$1,410	22	\$494	53	\$1,903	28%	28%	186	\$6,788
Cumberland	30	\$1,364	17	\$401	47	\$1,764	84%	85%	5	\$227	4	\$90	9	\$317	16%	15%	56	\$2,081
Franklin	27	\$1,227	25	\$589	52	\$1,816	73%	74%	9	\$409	10	\$224	19	\$634	27%	26%	71	\$2,450
Hancock	20	\$909	4	\$94	24	\$1,003	75%	79%	4	\$182	4	\$90	8	\$272	25%	21%	32	\$1,275
Kennebec	51	\$2,318	33	\$777	84	\$3,095	88%	87%	9	\$409	3	\$67	12	\$477	13%	13%	96	\$3,572
Knox	8	\$364	4	\$94	12	\$458	80%	80%	2	\$91	1	\$22	3	\$113	20%	20%	15	\$571
Lincoln	1	\$45	0	\$0	1	\$45	50%	50%	1	\$45	0	\$0	1	\$45	50%	50%	2	\$91
Oxford	8	\$364	8	\$188	16	\$552	80%	75%	4	\$182	0	\$0	4	\$182	20%	25%	20	\$734
Penobscot	96	\$4,363	48	\$1,131	144	\$5,494	83%	83%	21	\$955	9	\$202	30	\$1,157	17%	17%	174	\$6,651
Piscataquis	8	\$364	3	\$71	11	\$434	100%	100%	0	\$0	0	\$0	0	\$0	0%	0%	11	\$434
Sagadahoc	0	\$0	6	\$141	6	\$141	86%	76%	1	\$45	0	\$0	1	\$45	14%	24%	7	\$187
Sommerset	34	\$1,545	15	\$353	49	\$1,899	74%	76%	10	\$455	7	\$157	17	\$612	26%	24%	66	\$2,510
Waldo	7	\$318	2	\$47	9	\$365	60%	62%	4	\$182	2	\$45	6	\$227	40%	38%	15	\$592
Washington	50	\$2,273	37	\$872	87	\$3,144	67%	66%	29	\$1,319	13	\$292	42	\$1,610	33%	34%	129	\$4,755
York	16	\$727	12	\$283	28	\$1,010	72%	69%	9	\$409	2	\$45	11	\$454	28%	31%	39	\$1,464
Subtotals	436	\$19,816	267	\$6,291	703	\$26,107	76%	76%	139	\$6,320	77	\$1,728	216	\$8,048	24%	24%	919	\$34,155

RANGE	Min:	50%
	Max:	100%
	Median:	75%

RANGE	Min:	0%
	Max:	50%
	Median:	25%

*Note: This includes reimbursement changes represented by the receipt of a \$150,000 grant from the State of Maine. The reimbursement changes began in September, 1998.

**Table C4
CAP Program
Animals Spayed/Neutered by County
April 1, 1999 through March 31, 2000**

COUNTY	CATS								DOGS								CATS AND DOGS	
	SPAYED		NEUTERED		Total S/N	Total Cost	% Total S/N	% Total Cost	SPAYED		NEUTERED		Total S/N	Total Cost	% Total S/N	% Total Cost	Total S/N	Total Cost
	Total	Cost (\$27 Each)	Total	Cost (\$15 Each)					Total	Cost (\$30 Each)	Total	Cost (\$15 Each)						
Androscoggin	82	\$4,102	92	\$2,300	174	\$6,402	81%	79%	27	\$1,350	13	\$325	40	\$1,675	19%	21%	214	\$8,077
Aroostook	144	\$7,204	102	\$2,550	246	\$9,754	71%	70%	63	\$3,150	38	\$950	101	\$4,100	29%	30%	347	\$13,854
Cumberland	31	\$1,551	12	\$300	43	\$1,851	72%	73%	10	\$500	7	\$175	17	\$675	28%	27%	60	\$2,526
Franklin	81	\$4,052	54	\$1,350	135	\$5,402	74%	73%	30	\$1,500	18	\$450	48	\$1,950	26%	27%	183	\$7,352
Hancock	34	\$1,701	10	\$250	44	\$1,951	77%	76%	11	\$550	2	\$50	13	\$600	23%	24%	57	\$2,551
Kennebec	98	\$4,903	63	\$1,575	161	\$6,478	78%	77%	31	\$1,550	15	\$375	46	\$1,925	22%	23%	207	\$8,403
Knox	31	\$1,551	12	\$300	43	\$1,851	72%	70%	14	\$700	3	\$75	17	\$775	28%	30%	60	\$2,626
Lincoln	3	\$150	4	\$100	7	\$250	78%	77%	1	\$50	1	\$25	2	\$75	22%	23%	9	\$325
Oxford	50	\$2,502	24	\$600	74	\$3,102	81%	81%	12	\$600	5	\$125	17	\$725	19%	19%	91	\$3,827
Penobscot	140	\$7,004	88	\$2,200	228	\$9,204	84%	84%	25	\$1,250	20	\$500	45	\$1,750	16%	16%	273	\$10,954
Piscataquis	5	\$250	4	\$100	9	\$350	64%	64%	3	\$150	2	\$50	5	\$200	36%	36%	14	\$550
Sagadahoc	2	\$100	8	\$200	10	\$300	83%	80%	1	\$50	1	\$25	2	\$75	17%	20%	12	\$375
Somerset	60	\$3,002	27	\$675	87	\$3,677	61%	62%	35	\$1,750	21	\$525	56	\$2,275	39%	38%	143	\$5,952
Waldo	14	\$700	10	\$250	24	\$950	86%	84%	3	\$150	1	\$25	4	\$175	14%	16%	28	\$1,125
Washington	78	\$3,902	31	\$775	109	\$4,677	77%	77%	22	\$1,100	11	\$275	33	\$1,375	23%	23%	142	\$6,052
York	60	\$3,002	12	\$300	72	\$3,302	87%	89%	6	\$300	5	\$125	11	\$425	13%	11%	83	\$3,727
Subtotals	913	\$45,677	553	\$13,825	1,466	\$59,502	76%	76%	294	\$14,700	163	\$4,075	457	\$18,775	24%	24%	1923	\$78,277

	Min:	61%
RANGE	Max:	87%
	Median:	77%

	Min:	13%
RANGE	Max:	39%
	Median:	23%

**Table C5
CAP Program
Animals Spayed/Neutered by County
April 1, 2000 through March 31, 2001**

COUNTY	CATS								DOGS								CATS AND DOGS	
	SPAYED		NEUTERED		Total S/N	Total Cost	% Total S/N	% Total Cost	SPAYED		NEUTERED		Total S/N	Total Cost	% Total S/N	% Total Cost	Total S/N	Total Cost
	Total	Total Cost (\$27 Each)	Total	Cost (\$15 Each)					Total	Cost (\$30 Each)	Total	Cost (\$15 Each)						
Aroostook	78	\$3,900	50	\$1,250	128	\$5,150	70%	75%	34	\$1,700	20	\$500	54	\$1,754	30%	25%	182	\$6,904
Cumberland	13	\$650	7	\$105	20	\$755	71%	68%	7	\$350	1	\$25	8	\$358	29%	32%	28	\$1,113
Franklin	35	\$1,750	24	\$360	59	\$2,110	69%	73%	15	\$750	12	\$300	27	\$777	31%	27%	86	\$2,887
Hancock	34	\$1,700	15	\$225	49	\$1,925	89%	95%	2	\$100	4	\$100	6	\$106	11%	5%	55	\$2,031
Kennebec	33	\$1,650	37	\$555	70	\$2,205	75%	74%	15	\$750	8	\$200	23	\$773	25%	26%	93	\$2,978
Knox	15	\$750	1	\$15	16	\$765	57%	68%	7	\$350	5	\$125	12	\$362	43%	32%	28	\$1,127
Lincoln	0	\$0	2	\$30	2	\$30	100%	100%	0	\$0	0	\$0	0	\$0	0%	0%	2	\$30
Oxford	27	\$1,350	28	\$420	55	\$1,770	77%	77%	10	\$500	6	\$150	16	\$516	23%	23%	71	\$2,286
Penobscot	87	\$4,350	42	\$630	129	\$4,980	82%	86%	15	\$750	13	\$325	28	\$778	18%	14%	157	\$5,758
Piscataquis	17	\$850	7	\$105	24	\$955	86%	95%	1	\$50	3	\$75	4	\$54	14%	5%	28	\$1,009
Sagadahoc	6	\$300	3	\$45	9	\$345	82%	87%	1	\$50	1	\$25	2	\$52	18%	13%	11	\$397
Sommerset	44	\$2,200	16	\$240	60	\$2,440	72%	74%	17	\$850	6	\$150	23	\$873	28%	26%	83	\$3,313
Waldo	8	\$400	3	\$45	11	\$445	69%	68%	4	\$200	1	\$25	5	\$205	31%	32%	16	\$650
Washington	40	\$2,000	10	\$150	50	\$2,150	79%	84%	8	\$400	5	\$125	13	\$413	21%	16%	63	\$2,563
York	18	\$900	9	\$135	27	\$1,035	79%	83%	4	\$200	3	\$75	7	\$207	21%	17%	34	\$1,242
Subtotals	455	\$22,750	254	\$4,310	709	\$27,060	76%	79%	140	\$7,000	88	\$2,200	228	\$7,228	24%	21%	937	\$34,288

RANGE	Min:	57%
	Max:	100%
	Median:	77%

RANGE	Min:	0%
	Max:	43%
	Median:	23%

**Table D1
Percent Total Analysis - 1997**

1997	INTAKES							EUTHANASIAS										
Facility	Total Intakes	Total Cat Intakes	% Cat Intakes	Total Dog Intakes	% Dog Intakes	Total "Other" Intakes	% "Other" Intakes	Total Euthanized	% Euthanized	Total Cats Euthanized	% Cats Euthanized	Total Dogs Euthanized	% Dogs Euthanized	Total "Other" Euthanized	% "Other" Euthanized	% Cats Taken in that were Euthanized	% Dogs Taken in that were Euthanized	% of "Other" Taken in that were Euthanized
1	3,916	2,522	64%	1,211	31%	161	4%	1,150	29%	888	77%	188	16%	74	6%	35%	16%	46%
2	738	448	61%	261	35%	29	4%	318	43%	232	73%	86	27%	0	0%	52%	33%	0%
3	64	15	23%	50	78%	0	0%	11	17%	10	91%	1	9%	0	0%	67%	2%	0%
4	48	8	17%	40	83%	0	0%	0	0%	0	0%	0	0%	0	0%	0%	0%	0%
5	197	0	0%	197	100%	0	0%	2	1%	0	0%	2	100%	0	0%	0%	1%	0%
6	1,078	618	57%	460	43%	0	0%	154	14%	134	87%	20	13%	0	0%	22%	4%	0%
7	3,332	2,067	62%	1,158	35%	107	3%	1,329	40%	1,130	85%	171	13%	28	2%	55%	15%	26%
8	576	292	51%	270	47%	14	2%	17	3%	11	65%	6	35%	0	0%	4%	2%	0%
9	2,629	1,736	66%	893	34%	0	0%	1,510	57%	1,254	83%	256	17%	0	0%	72%	29%	0%
10	668	328	49%	340	51%	0	0%	167	25%	134	80%	33	20%	0	0%	41%	10%	0%
11	100	28	28%	72	72%	0	0%	3	3%	3	100%	0	0%	0	0%	11%	0%	0%
12	145	83	57%	62	43%	0	0%	86	59%	74	86%	12	14%	0	0%	89%	19%	0%
13	300	174	58%	126	42%	0	0%	49	16%	43	88%	6	12%	0	0%	25%	5%	0%
14	498	212	43%	281	56%	5	1%	156	31%	114	73%	42	27%	0	0%	54%	15%	0%
15	3,497	2,329	67%	937	27%	231	7%	2,059	59%	1,670	81%	320	16%	69	3%	72%	34%	30%
16	5,811	3,817	66%	1,933	33%	61	1%	3,589	62%	2,659	74%	911	25%	19	1%	70%	47%	31%
17	32	32	100%	0	0%	0	0%	15	47%	15	100%	0	0%	0	0%	47%	0%	0%
18	3,520	2,201	63%	1,237	35%	69	2%	1,119	32%	956	85%	157	14%	6	1%	43%	13%	9%
Total	27,149	16,910	62%	9,528	35%	677	2%	11,734	43%	9,327	79%	2,211	19%	196	2%	55%	23%	29%

**Table D2
Percent Total Analysis - 1998**

1998	INTAKES							EUTHANASIAS										
Facility	Total Intakes	Total Cat Intakes	% Cat Intakes	Total Dog Intakes	% Dog Intakes	Total "Other" Intakes	% "Other" Intakes	Total Euthanized	% Euthanized	Total Cats Euthanized	% Cats Euthanized	Total Dogs Euthanized	% Dogs Euthanized	Total "Other" Euthanized	% "Other" Euthanized	% Cats Taken in that were Euthanized	% Dogs Taken in that were Euthanized	% of "Other" Taken in that were Euthanized
1	758	529	70%	224	30%	5	1%	372	49%	321	86%	51	14%	0	0%	61%	23%	0%
2	28		0%	28	100%		0%	3	11%		0%	3	100%		0%	0%	11%	0%
3	3,224	2,101	65%	988	31%	135	4%	1,692	52%	1,398	83%	258	15%	36	2%	67%	26%	27%
4	14	14	100%		0%		0%	0	0%		0%		0%		0%	0%	0%	0%
5	522	251	48%	268	51%	3	1%	29	6%	24	83%	5	17%	0	0%	10%	2%	0%
6	3,167	1,909	60%	1,120	35%	138	4%	1,074	34%	903	84%	127	12%	44	4%	47%	11%	32%
7	39	9	23%	30	77%		0%	9	23%	8	89%	1	11%		0%	89%	3%	0%
8	141	86	61%	55	39%		0%	4	3%	4	100%	0	0%		0%	5%	0%	0%
9	2,676	1,741	65%	935	35%		0%	1,207	45%	1,039	86%	168	14%		0%	60%	18%	0%
10	121	36	30%	84	69%	1	1%	7	6%	6	86%	1	14%	0	0%	17%	1%	0%
11	489	302	62%	187	38%		0%	20	4%	14	70%	6	30%		0%	5%	3%	0%
12	35		0%	35	100%		0%	2	6%		0%	2	100%		0%	0%	6%	0%
13	803	452	56%	346	43%	5	1%	293	36%	213	73%	77	26%	3	1%	47%	22%	60%
14	3,843	2,313	60%	1,368	36%	162	4%	894	23%	707	79%	151	17%	36	4%	31%	11%	22%
15	5,261	3,391	64%	1,808	34%	62	1%	2,825	54%	2,047	72%	744	26%	34	1%	60%	41%	0%
Total	21,121	13,134	62%	7,476	35%	511	2%	8,431	40%	6,684	79%	1,594	19%	153	2%	51%	21%	30%

**Table D3
Percent Total Analysis - 1999**

1999 Facility	INTAKES							EUTHANASIAS										
	Total Intakes	Total Cat Intakes	% Cat Intakes	Total Dog Intakes	% Dog Intakes	Total "Other" Intakes	% "Other" Intakes	Total Euthanized	% Euthanized	Total Cats Euthanized	% Cats Euthanized	Total Dogs Euthanized	% Dogs Euthanized	Total "Other" Euthanized	% "Other" Euthanized	% Cats Taken in that were Euthanized	% Dogs Taken in that were Euthanized	% of "Other" Taken in that were Euthanized
1	655	437	67%	202	31%	16	2%	322	49%	253	79%	66	20%	3	1%	58%	33%	19%
2	30		0%	30	100%		0%	4	13%		0%	4	100%		0%	0%	13%	0%
3	3,241	1,998	62%	1,120	35%	123	4%	1,661	51%	1,325	80%	288	17%	48	3%	66%	26%	39%
4	7	7	100%		0%		0%	0	0%		0%		0%		0%	0%	0%	0%
5	468	225	48%	231	49%	12	3%	16	3%	7	44%	9	56%	0	0%	3%	4%	0%
6	3,189	1,836	58%	1,196	38%	157	5%	910	29%	765	84%	115	13%	30	3%	42%	10%	19%
7	16	5	31%	11	69%		0%	6	38%	5	83%	1	17%		0%	100%	9%	0%
8	156	99	63%	57	37%		0%	6	4%	3	50%	3	50%		0%	3%	5%	0%
9	2,459	1,537	63%	922	37%		0%	953	39%	797	84%	156	16%		0%	52%	17%	0%
10	98	44	45%	54	55%		0%	24	24%	19	79%	5	21%		0%	43%	9%	0%
11	538	391	73%	192	36%		0%	83	15%	81	98%	2	2%		0%	21%	1%	0%
12	55		0%	55	100%		0%	3	5%		0%	3	100%		0%	0%	5%	0%
13	698	417	60%	276	40%	5	1%	297	43%	238	80%	59	20%		0%	57%	21%	0%
14	3,930	2,528	64%	1,240	32%	162	4%	726	18%	539	74%	151	21%	36	5%	21%	12%	22%
15	5,069	3,490	69%	1,546	30%	33	1%	3,370	66%	2,852	85%	514	15%	4	0%	82%	33%	12%
Total	20,609	13,014	63%	7,132	35%	508	2%	8,381	41%	6,884	82%	1,376	16%	121	1%	53%	19%	24%

**Table D4
Percent Total Analysis - 2000**

2000	INTAKES							EUTHANASIAS										
Facility	Total Intakes	Total Cat Intakes	% Cat Intakes	Total Dog Intakes	% Dog Intakes	Total "Other" Intakes	% "Other" Intakes	Total Euthanized	% Euthanized	Total Cats Euthanized	% Cats Euthanized	Total Dogs Euthanized	% Dogs Euthanized	Total "Other" Euthanized	% "Other" Euthanized	% Cats Taken in that were Euthanized	% Dogs Taken in that were Euthanized	% of "Other" Taken in that were Euthanized
1	1,351	827	61%	524	39%		0%	580	43%	476	82%	104	18%		0%	58%	20%	0%
2	4,439	2,880	65%	1,407	32%	152	3%	937	21%	666	71%	193	21%	78	8%	23%	14%	51%
3	3,388	2,124	63%	1,142	34%	122	4%	1,713	51%	1,433	84%	263	15%	17	1%	67%	23%	14%
4	3,044	2,057	68%	915	30%	72	2%	583	19%	540	93%	19	3%	24	4%	26%	2%	33%
5	91	36	40%	55	60%	0	0%	5	5%	5	100%	0	0%	0	0%	14%	0%	0%
6	3,098	1,947	63%	955	31%	196	6%	852	28%	688	81%	89	10%	75	9%	35%	9%	38%
7	735	467	64%	268	36%		0%	327	44%	284	87%	43	13%		0%	61%	16%	0%
8	153	98	64%	55	36%		0%	5	3%	3	60%	2	40%		0%	3%	4%	0%
9	506	316	62%	190	38%		0%	104	21%	82	79%	22	21%		0%	26%	12%	0%
10	451	293	65%	158	35%		0%	165	37%	126	76%	39	24%		0%	43%	25%	0%
11	4,563	3,076	67%	1,423	31%	64	1%	2,397	53%	1,907	80%	484	20%	6	0%	62%	34%	9%
12	2,276	1,498	66%	746	33%	32	1%	979	43%	900	92%	77	8%	2	0%	60%	10%	6%
Total	24,095	15,619	65%	7,838	33%	638	3%	8,647	36%	7,110	82%	1,335	15%	202	2%	46%	17%	32%

**Table D5
Percent Total Analysis - 2001**

2001	INTAKES							EUTHANASIAS										
Facility	Total Intakes	Total Cat Intakes	% Cat Intakes	Total Dog Intakes	% Dog Intakes	Total "Other" Intakes	% "Other" Intakes	Total Euthanized	% Euthanized	Total Cats Euthanized	% Cats Euthanized	Total Dogs Euthanized	% Dogs Euthanized	Total "Other" Euthanized	% "Other" Euthanized	% Cats Taken in that were Euthanized	% Dogs Taken in that were Euthanized	% of "Other" Taken in that were Euthanized
1	5,020	3,743	75%	1,260	25%	17	0%	2,527	50%	2,208	87%	315	12%	4	0%	59%	25%	24%
2	2,968	1,896	64%	867	29%	205	7%	729	25%	598	82%	80	11%	51	7%	32%	9%	25%
3	4,420	2,637	60%	1,406	32%	377	9%	1,048	24%	736	70%	159	15%	153	15%	28%	11%	41%
4	3,073	2,051	67%	1,022	33%	112	4%	1,518	49%	1,246	82%	248	16%	24	2%	61%	24%	21%
5	400	400	100%	-	0%	-	-	-	0%	6	-	-	-	-	-	2%	-	0%
6	64	16	25%	48	75%	1	2%	4	6%	4	100%	0	0%	0	0%	25%	0%	0%
7	6	-	-	6	100%	-	-	-	0%	-	-	-	-	-	-	-	-	0%
8	470	312	66%	157	33%	1	0%	170	36%	147	86%	23	14%	0	0%	47%	15%	0%
9	436	264	61%	172	39%	0	0%	146	33%	108	74%	38	26%	0	0%	41%	22%	0%
10	16	-	-	16	100%	-	-	-	0%	-	-	2	-	-	-	-	13%	0%
11	57	2	4%	55	96%	-	0%	-	0%	-	-	2	-	-	-	-	4%	0%
12	267	210	79%	57	21%	-	-	0	0%	0	-	0	-	0	0%	0%	0%	0%
13	965	551	57%	414	43%	-	-	-	0%	57	-	6	-	-	-	10%	1%	0%
14	2,123	1,372	65%	751	35%	-	-	-	0%	-	-	-	-	-	-	-	-	0%
15	2,682	1,895	71%	787	29%	-	-	-	0%	1,068	-	145	-	-	-	56%	18%	0%
Total	22,967	15,349	67%	7,018	31%	713	3%	7,428	32%	6,178	83%	1,018	14%	232	3%	40%	15%	33%