

The Economic Contribution of the Pet Sector to the U.S. Economy

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Abstract: We break out national expenditures on pet food and pet supplies and detail industries underlying this segment of the U.S. economy to derive economic contributions of the U.S. Pet Industry.

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Executive Summary

The American Pet Products Association (APPA), in collaboration with Animal Health Economics LLC, contracted with the Center for Economic Analysis at Michigan State University to assess the economic contribution of the U.S. pet sector. For the purposes of this analysis, pets include dogs, cats, ferrets, rabbits, and small mammals, amphibians like frogs and salamanders, other reptiles adopted by households, birds, and both freshwater and saltwater fish. It excludes farm livestock animals and horses, animals often deemed not domesticated or domesticable by state and federal agencies, a host of exotic animals that include primates and large cats, and animals determined to be illegal or restricted for domestication. Both lists are not exhaustive. The group of animals considered pets in this report are often referred to as companion animals; the primary reason people own them is for companionship or for recreational purposes, but also increasingly as support animals.

In estimating the economic activities surrounding the U.S. pet industry, segments must be selected to be included or excluded as contributors to the pet industry. Business establishments self-select the industry that best describes their business from a category under the North American Industry Classification System (NAICS), though any business may serve one or more markets. The segments included as supporting the pet industry in this study include pet sales, pet food manufacturing, veterinary services, pet pharmaceuticals, pet products (e.g., toys, crates, food bowls, leashes, and other products), and pet services such as grooming and boarding. The entire supply chain for these products is analyzed in this report.

Data for the analysis come from several sources, including the U.S. Census Bureau, the U.S. Department of Commerce, Nielsen, the American Pet Products Association, American Veterinary Medical Association, and IBIS World, to name a few. Some data are difficult to collect with certainty. This is particularly true for pet sales. Many pets are purchased through informal channels or are adopted through shelters and humane societies.

There are three types of economic contributions tracked in this analysis. The first is the direct contribution – sales in the industry under consideration. The second is indirect contribution -- sales that are linked to related industries. The third is induced contribution – increased household expenditures that is caused by the contribution generated by the industry.

Since there are so many industries that sell and service pets, the best way to analyze the economics of the pet industry is as a sector of the economy, rather than as an individual industry. It is a sector that is quite large. Because pet owners increasingly view their pets as family members and spend accordingly, the sector is likely to continue to grow, at least in the short term. In the long-term demographics will play a very important role in the sector. Households with children tend to have more pets than households without children, and senior citizens are less likely to own pets than younger people. An aging population and an inflationary environment are difficulties facing the pet sector.

The estimates of the national level economic contributions suggest that the total annual household expenditures in 2025 for pets, pet services, and pet products total \$157.86 billion. Collectively, the estimates suggest that total annual output the U.S. pet industry contributes is \$437.7 billion. The estimate shows that about 1.84 million jobs can be directly attributed to pet related businesses, and once accounting for economic multiplier effects, we can link about 5.11 million jobs directly or indirectly to household expenditures for pets. The direct, indirect, and induced effects of the pet products industry generate a total of \$60.19 billion in tax revenue. This includes tax revenues at the local, state and federal level.

Introduction

Pets and related industries have experienced significant growth. One estimate is that 23 million U.S. households adopted a pet between the spring of 2019 and July 2021 (Brocker, 2021). It is also estimated that 95.41 million households, or about 71 percent of the households in the U.S. have at least one pet. According to the National Pet Owners Survey, 53 percent of U.S. households own at least one dog and 39 percent of households own at least one cat (APPA, 2026). Pet ownership has spawned a significant industry around services and products for pets and their owners. The demand for pet related products is what is sometimes referred to as derived demand. The ownership of pets drives consumer demand for pet food and pet related supplies and services.

The Covid-19 outbreak appears to have increased the number of pets owned and this, in turn, increased the demand for pet related products. In 2020, 35 percent of pet owners increased spending on their pets and only 8 percent spent less (APPA, 2022a). Some of the items owners buy their pets include premium pet treats, probiotics, intelligent devices, and subscription services that are similar to those used by humans (Irigoyen, 2025). Since the APPA estimates of total household expenditures, the current inflationary environment has likely led to increased household expenditures on pets, especially spending on pet food. Conversely, the higher inflationary environment may force some consumers to cut back on spending on their pets (Tang, 2026). This may be especially true for grooming and boarding services.

One of the major trends that is driving the growth of the entire pet sector is the “humanization” of pets (Holcomb, 2021). According to one survey, more than 60 percent of owners regard their pets as family members (Brocker, 2021). Pet owners’ investments in the health of their pets, and the products they buy for their pets increasingly reflect their owners’ personal connections and values placed on their pets.

Potentially offsetting this fact is the stubborn rate of inflation, especially for necessities such as housing and food. While some pet owners remain committed to spending “whatever it takes” on their pets, others may be “trading down” by buying less expensive pet food and buying fewer treats and toys.

This report analyzes the contributions of the pet industry to the national economy and is a precursor to state-level breakouts of economic contribution estimates. For the purposes of this analysis pets include dogs, cats, ferrets, rabbits, and small mammals, amphibians like frogs and salamanders, other reptiles like lizards, turtles and snakes, birds, and both freshwater and saltwater fish. It excludes farm livestock animals and horses, animals often deemed not domesticated or domesticable by state and federal agencies, a host of exotic animals that includes primates and large cats, and animals determined to be illegal or restricted for domestication. Both lists are not exhaustive. The group of animals considered pets in this report are often referred to as companion animals; the primary reason people own them is for companionship or for recreational purposes, but also increasingly as support animals.

Economic contribution measurements fall into three categories. The first is the direct effect, which entails direct expenditures related to the industry in question. The second is indirect effects which arise from industry-to-industry transactions, including intermediate purchases of goods for resale. The third is induced effects that arise from household expenditures enabled by households’ earnings derived from direct and indirect expenditures – i.e., earnings from employment supported by the pet products segment.

The market for pet supplies and services is quite large and increasing with pet owners increasingly viewing their pets as family members (Cushing, 2020). They are spending accordingly and growing the market in the short term. Demographics will play a very important role in the market's long-term trend. Households with children tend to have more pets than households without children. The share of American households with children has been trending down since the 1970s. Although senior citizens are less likely to own pets than younger people, they make up a disproportionate share of total expenditures for pet supplies and services (Le, 2021). While shifting family priorities and an aging demographic present headwinds for the pet industry, the sector has proven stubbornly resistant to these pressures.

As opposed to the production of pet foods and supplies, many of the services that support pets are local in nature. This is especially true for veterinary and pet care services and, to a certain extent, the retail sector when excluding big box stores. Pet food and other pet products are offered at a number of outlets. In addition to dedicated pet stores, pet food and other pet products are sold at supermarkets, mass merchandisers such as Walmart and Costco, and other retailers such as farm and feed stores. General store sales of pet-related products obfuscate efforts at measuring pet product sales from retail establishment sales data. While retail sales are largely local, online sales are increasingly encroaching on regional retail markets, further complicating efforts to measure the value of pet product sales.

The sections below provide an assessment of the national pet industry and its contribution to the national economy. In anticipation of the findings, annual estimated consumer expenditures on pet products and services, totaling \$157.86 billion, is estimated to contribute \$437.70 billion to annual expenditures once accounting for multiplier effects. We estimate that about 1.84 million people work directly in pet related businesses, and that another 3.27 million jobs can be linked indirectly to consumer expenditures for pets (5.11 million total jobs). Attributing total economic contributions of the pet industry, including direct and secondary effects (indirect and induced effects), estimated public revenues generated from consumer expenditures on pets total \$60.19 billion annually, of which \$31.47 billion is state and local tax revenue and \$28.72 billion is federal tax revenue.

Table 1 shows a summary of the economic contribution of the pet sector. It should be noted that these include the entire supply chain for pet products and services.

Metric	Value
Economic Contribution (Billions)	
Direct	\$157.86
Indirect and Induced	\$279.84
Total Contribution to Output	\$437.70
Employment Contribution (Millions)	
Direct	1.84
Indirect and Induced	3.27
Total Employment	5.11
Tax Contributions (Billions)	
State and Local	\$31.47
Federal	\$28.72
Total Tax	\$60.19

Table 1: Summary of the Economic Contribution of the Pet Sector to the U.S. Economy, 2025

In addition to the direct spending and employment on pets and pet related products, the spending and employment on related businesses (indirect) and household spending and employment from the pet sector (induced) are estimated to obtain the total contribution of the pet sector.

The Markets for Pets and Pet Products

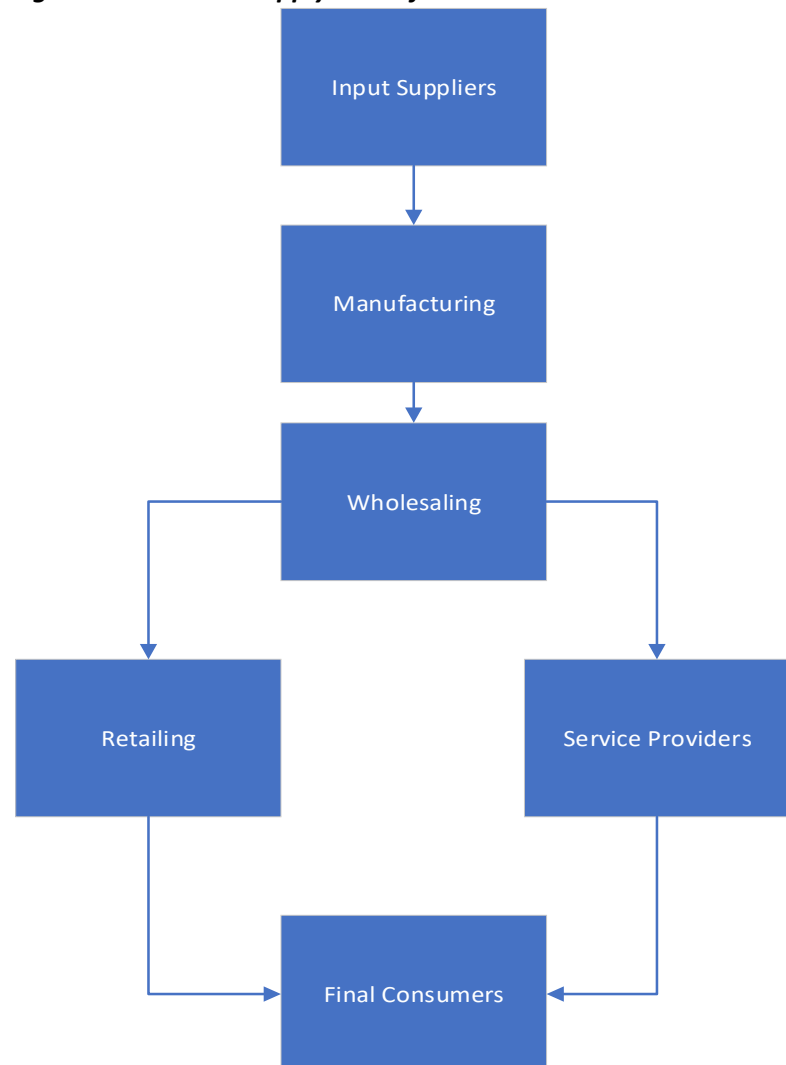
The Supply Chain for Pet Products

Each consumer pet expenditure category has its own supply chain, representing all the transactions necessary to make the product or service available for consumer purchase. That is, the supply chain links different stages along a market channel from inputs used to provide a good or service to the final consumer. A generic supply chain is shown in Figure 1.

In this simple example, input suppliers provide intermediate products to manufacturers. Examples of inputs are raw materials, gas and electricity, and packaging materials. Manufacturers convert the inputs into a saleable product. The wholesaler buys the manufactured product and provides storage and distribution services for retailers and service providers. In some cases, the retailers operate their own warehouses; large retailers such as Meijer and Walmart, as well as internet-based retailers such as Amazon are examples. Similar supply chains exist for service providers. For instance, veterinary services will purchase lab equipment from specialized sellers, pharmaceuticals from wholesalers and direct from manufacturers, but also services, like accounting services, crematorium services and others from, often local, service providers.

As is the case with many products, Covid-19 accelerated the growth of internet sales (Madigan, 2021). As mentioned in the introduction, there are many retail outlets for pet related products. Wholesalers provide several intermediary services for the distribution of goods for final sale to retailers. Some wholesalers also provide products to pet service providers such as veterinarians and groomers. The final stage in the

Figure 1: A Generic Supply Chain for a Pet Product



supply chain is the consumer who buys and uses the product. Each node along the supply chain generates economic activity, manifesting in the simple direct economic activity captured in the price the consumer pays for the good or service. Working backward from the direct consumer expenditures to input suppliers and adding up the value of the transactions at each leg provides an analogous representation of the source of the total economic effects arising from the simple purchase consumers make. When modeling the economic contributions of consumer expenditures, it is important to recognize that the standard economic simulation model estimates all the transactions leading up to the final sale for consumer use. That is, adding all the sales along the supply chain would result in double counting and an overstatement of the economic contribution. Nonetheless, each node does generate indirect and induced contributions that are modeled in the final economic contribution estimates.

Animal Trade

Covid-19 increased pet ownership (APPA, 2022a), as people working from home and living under lockdown adopted and purchased more pets. It is estimated that pet ownership increased 3.1 percent in 2020 and increased further in 2021 (Madigan, 2021). However, in the long run, the outlook for pet ownership is uncertain; the population of the U.S. is aging, and senior citizens are less likely to be pet owners but are more likely to spend lavishly on their pets (Le, 2021). Another consideration is the fact that fewer children are being born and people are postponing marriage. Households with children have traditionally had a higher rate of pet ownership. In the future, the rate of pet ownership may decline.

Dogs and cats are obtained through many outlets: these include shelters, rescue organizations, and breeders. Pet stores and other retailers are less common outlets for dogs and cats. According to a recent survey, only two percent of dogs were purchased at a pet store (APPA, 2022a). It is estimated that 53 percent of households own at least one dog (APPA, 2026).

It is estimated that 39 percent of households own at least one cat and that only eight percent of cats are purchased at some type of pet store (APPA, 2026). The three primary ways a household obtains a cat is as a stray, from an animal shelter, or from a friend or relative.

The APPA survey estimates that seven percent of households own freshwater fish, and one percent own saltwater fish (APPA, 2026). These figures include pond fish. Most fish owners own more than one fish. Unlike dogs and cats, most households purchase pet fish from dedicated fish and aquarium stores and pet stores. Though often carried in big-box retail stores, aquariums and water tanks for pet fish are mostly purchased in specialty fish and pet stores.

Birds are also common household pets. The APPA estimated that four percent of households owned at least one bird in 2025 (APPA 2026). In a previous study, approximately 30 percent of bird owners had two birds, and 18 percent owned three or more birds. Birds are most commonly purchased at specialty stores (APPA 2024).

The APPA survey estimates that small mammals are owned by four percent of all households, where small mammals include guinea pigs, rabbits, hamsters, ferrets, and other small mammals (APPA, 2026). The most common among these are rabbits, guinea pigs, and hamsters. The most common source of these animals are specialty pet stores, and pet superstores (APPA, 2024).

Among the households surveyed, four percent owned reptiles as pets (APPA, 2026). Reptile owners tend to be somewhat younger than owners of other pets, and approximately one third own more than one.

Turtles and tortoises are the most common type of reptile owned, followed by lizards. The most common source of reptiles is pet stores, followed by pet superstores (APPA, 2024).

Table 2 shows the number of households that own different types of pets. Some of these households may own more than one species of pet or own multiple numbers of the same species. Many households own different types of pets with dogs and cats being the most popular. Several million households also own less common pets such as small mammals, reptiles, and birds.

Species	Households (Millions)
Bird	5
Cat	53
Dog	71
Freshwater Fish	9
Saltwater Fish	1
Reptile	6
Small Mammal	5

Source: APPA, 2026

Table 2: Number of Households Owning Different Types of Pets

Pet Food Manufacturing

Pet food, including edible pet treats, is one of the largest expenses for most pet owners (APPA, 2026). The pet food industry is dominated by large international firms, suggesting a relatively high degree of economic leakage. Economic leakage occurs when dollars flow out of the domestic economy to purchase imported goods. Once dollars leave the economy, they cease to recirculate, pruning the full potential effect of the indirect and induced effects.

The supply chain for pet food is comprised of input suppliers, these include agricultural producers, initial food processors, industrial machinery, heat and electricity production, and packaging production. Raw material purchases are the major cost component of pet food manufacturing. First tier buyers of pet food include wholesalers, online retailers, mass retailers such as Walmart and Costco, supermarkets, and larger pet store chains. Second tier buyers include smaller pet stores, and firms that board pets (Madigan, 2021). Given that most pets are cats or dogs, cat and dog food is the biggest segment in this industry.

As is the case with other food manufacturing industries, purchases of raw or pre-processed food inputs are the largest single cost item accounting for more than two thirds of industry revenue (Diment, 2021). Input costs vary as agricultural commodity prices vary, but there has been an increase in animal protein costs due to avian influenza and drought that has reduced the supply of cattle. Tariffs have also increased packaging costs. The second largest cost item is wages accounting for about six percent of total revenues (Diment, 2021) and driving the largest component of industry induced effects. Pet food manufacturing is capital intensive which means that there are comparatively fewer workers in food manufacturing plants than in most service-providing segments, like retail, grooming and veterinary services.

Both large and small pet food manufacturers are involved in making these products. The choice of pet food products tend to reflect the values of pet owners. As a result, there is increased interest in organic and natural pet foods as well as gluten free and grain free products, as well as supplements (Bucko, 2025).

As is the case with human food there is an interest in food that have a “clean” label, products with few additives and preservatives.

There are several market segments of the pet food industry. Perhaps the fastest growing segment is the premium pet food segment which grew 6.7 percent on an annual basis from 2016 to 2021 (Madigan, 2021). Premium pet food accounted for approximately 43 percent of all pet food sales in dollar terms in 2021 (Madigan, 2021). As is the case with human food, higher commodity prices have led to an increase in pet food prices. Premium dog food sales account for over twice the value of premium cat food sales (Madigan, 2021).

The four largest firms in the pet food industry are multinational corporations that account for more than 68 percent of global sales (Diment, 2021). Despite this fact, there seems to be potential for new entrants, especially in the premium pet food segment. It is estimated that the number of pet food firms will rise from 755 in 2020 to 942 in 2026, an increase of 24.7 percent (Diment, 2021). Economies of scale make the large firms the low-cost producers. Nonetheless, smaller firms can take advantage of niche opportunities in the market.

The largest retail outlet for pet food products are mass merchandisers such as Costco and Walmart. In 2020, almost 40 percent of industry sales were through mass merchandisers (Diment, 2021). The second largest retail outlet is dedicated pet stores. Pet stores are particularly important outlets for fish food (APPA, 2022a) and pet products for exotic animals. In 2020, pet stores including large pet retailers such as Petco and PetSmart, accounted for about 20 percent of sales, with supermarkets and convenience stores accounting for about 15 percent of sales. Online pet retailers also accounted for about 15 percent of sales in 2020 (Diment, 2021). However, online sales have probably increased faster as Covid-19 has reduced consumers shopping in person and consumers are now more used to shopping online (Madigan, 2021). Online retailers have turned to subscription services with automatic re-ordering of pet food to lock in consumers, reducing regionality in pet industry markets.

Exports are not a major source of sales for domestic producers. Exports were estimated to be 6.4 percent of total industry revenue in 2020. The major markets are Canada, Japan, and Mexico. Almost 50 percent of exports go to Canada (Diment, 2021). Alternatively, imports represent about 5 percent of total industry revenue (Diment, 2021).

The Midwest is the largest pet food producing area in the country (Diment, 2021). This is due to the region’s population base as well as its easy access to agricultural inputs and food production by-products, which are often used in pet food products. Texas and California are also major producing areas, likely due to the large population centers in those states.

Other Pet Products

Other pet products, toys, leashes and collars, cages, bedding, medicines, and bowls are a major source of revenue for pet retailers (APPA, 2026). Unlike most other pet products and services imports are an important source of products, and China is an especially important source of products.

One aspect of pet product purchases is when and how often pet supplies are purchased. Some products, like cat litter are consumed continuously. A growing trend in online retailing targets such products on a subscription basis, where the product is automatically delivered on a schedule. The predictability of such purchases reduces the merchant costs of handling such products and that savings can be passed on to the

consumer. With surprising regularity, pet owners make special purchases of gifts for their pets during key holidays. For example, the APPA revealed that 45 percent of dog owners, 35 percent of cat owners, and 31 percent of small animal owners buy Christmas gifts for their pets (APPA, 2022a). In addition, fish owners are prone to decorating fish tanks with seasonal ornaments. Many pet owners purchase other pet products with striking regularity. As many cat owners will attest, cats tend to become accustomed and disinterested in their current toys over time, encouraging owners to purchase new toys regularly. Many bird owners replace their pet's cage at least once a year while small mammal owners typically replace cages between once a year and once every four years (APPA, 2022a).

Pet Food and Pet Supplies Wholesaling

Wholesalers play an important role in the supply chain by linking manufacturers to retailers or service providers. In the pet sector, wholesalers transact in pet food, treats, and pet supplies such as leashes, collars, cages, toys, food and water bowls, and a host of other pet-related products. While a small part of total wholesaler revenue, some wholesalers also market live animals. These are likely birds, reptiles, fish, and small mammals (Le, 2022b). Pet stores are a major customer for wholesalers, followed by supermarkets and grocery stores (Le, 2022b). However, the growth of mass retailers and internet retailers has reduced the demand for wholesale services, as manufacturers directly service these firms. In 2021, it was estimated that there were 641 firms in the industry (Le, 2022b).

Pet products wholesaling activity is fairly evenly spread throughout the country, though wholesaling facilities are more commonly located in larger states with large populations. Pet products are not exclusively handled by pet-products wholesalers. Rather pet products intermediation may exist within in-house warehousing activities of mass merchandisers, like Wal Mart and Dollar General. Pet-related products may also be carried by general product wholesalers serving independent retailers but likely with fewer product lines.

As is the case throughout the pet supply chain, tariffs are a barrier to profitability because they increase the cost of doing business. Tariffs on metals appear to be particularly impactful, no doubt due to the prominent role in packaging of canned foods (Irigoyen, 2025). Large retailers and web-based outlets are increasingly doing business directly with manufacturers which also put pressure on wholesalers (Irigoyen, 2025).

Pet Products Retailing

As previously mentioned, pet products are sold in a wide range of outlets. Mass merchandisers such as Walmart and Costco are the largest outlets. As a group, dollar stores, supermarkets, drug stores and grocery stores are the primary outlets of pet supplies. However, they tend to specialize in lower value-higher volume pet products (Le, 2021), reserving super premium and specialty products to dedicated pet supply retailers (Le, 2021; APPA, 2022a). Online sales appear to be growing the fastest. Covid-19 likely accelerated the growth of online sales as some consumers stopped shopping in person and began shopping online (APPA, 2022a). Online sales of pet food and pet supplies increased by 11.3 percent in 2021 (Le, 2021). Some retailers such as Petco and PetSmart have both physical stores and an online presence. Online sales are dominated by a few firms; Amazon has almost a 45 percent share of the online market. And the three largest firms account for close to 90 percent of all online pet related sales (Le, 2021). In 2020, 47 percent of pet owners surveyed increased their purchases of online pet related products (APPA, 2022a).

In the very competitive market space for pet products, PetSmart is the largest dedicated pet retailer with a 31.6 percent market share followed by Petco with a 14.3 percent market share (Posada, 2026). Most of the larger pet store chains also have internet sales. Most pet stores are relatively small, independent retailers with fewer than 10 workers (Le, 2022a). Traditional pet stores are an important source for live pet trade, as well as for pet supplies.

Specialty pet store retailers are common outlets for food and pet products for birds, fish, exotics, and reptiles (APPA, 2022a). Owners of more common pets from small mammals through full-sized cats and dogs tend to buy food from a wide range of sources, though most owners buy pet food from mass merchandizers, deep discounters, supermarkets, and farm feed stores (Lombardo, 2025; APPA, 2022a). Regardless, specialty pet stores are a common source of food, especially for pets requiring special diets or for those owners insisting on super premium food products for their pets. Reptile owners tend to shop at mass merchandizers for canned food and fruits and vegetables, and pet stores for live animals or freeze-dried insects (APPA, 2022a). Dedicated pet stores are also the most common outlet for reptile care items (APPA, 2022a).

To differentiate themselves from their competition pet retailers are increasingly offering services such as grooming and obedience training. Selling pharmaceuticals is another growing opportunity for retailers (Bucko, 2025).

Veterinary Services

The demand for veterinary services has increased in step with owners' growing collective bond with their pets (Cushing, 2020, Holbrook, et al., 2001). In turn, veterinary services have increasingly resembled the level and technical complexity of human health care, even to the extent to which owners invest in health insurance for their pets. Emergency healthcare for a pet can reach thousands of dollars, and as owners increasingly view their pets as members of the family, they are increasingly willing to pay accordingly for the welfare of their pets (Brockman et al., 2008). However, it should be noted that demand for veterinary services appears to be stabilizing as rising costs are placing restraints on spending on vet care (Brocker, 2026). The shortage of veterinarians is putting pressure on the price of veterinary services.

More than half of bird owners surveyed took their birds to the veterinarian at least once during the previous 12 months (APPA, 2022a). In the case of small mammals, veterinary care can be the largest cost item facing the pet owner (APPA, 2022a). Reptile owners are also increasing their purchases of medication for their pets. (APPA, 2022a).

Veterinary clinics are becoming larger, and vet techs and veterinary nurses are doing jobs that were once carried out by veterinarians. The increased use of health insurance will likely increase the demand for veterinary services as pet owners do not have to pay the full price of the service at the time it is rendered. Procedures that were once reserved for humans have become more common for animals. This includes advanced internal imagery technologies like MRIs and ultrasounds. Complicated surgeries have also become more common (Ristoff, 2021). For the United States, the veterinary services industry expanded at an annualized rate of 0.4% from 2021 to 2026, reaching an estimated \$72.6 billion in revenue. Moving forward, the US industry is forecast to grow at an annualized rate of 2.0% from 2026 to 2031, reaching a projected \$80.2 billion (Brocker, 2026). Unlike human medicine, veterinary practices still do most of their own laboratory work and fill their own prescriptions. Veterinarians are the most common source of

medicines, but consumers buy medications for their pets from a wide range of outlets (APPA, 2022a). This may be an increasing source of competition for veterinary practices.

Most veterinary practices focus on pet healthcare. These practices account for two thirds of the total revenue generated by the industry. Practices that cater primarily to pets but also treat farm animals account for an additional 8.5 percent of total revenue (Ristoff, 2021). As is the case with other pet services, the level of industry concentration in the veterinary sector is very low. The three largest firms account for less than 10 percent of total sales (Ristoff, 2021). However, it appears that veterinarian practices that focus solely on pets are becoming more concentrated.

There is a trend toward fewer single practices towards more partnerships, and multi veterinarian practices (Ristoff, 2021). Almost 25 percent of veterinary clinics were corporately owned in 2024 (Brocker, 2026). However, a persistent shortage of veterinarians may hinder this sector's long-term growth, leading to higher prices against increasing demand. The primary cost component of veterinary practices are wages (Ristoff, 2021). This is consistent with most service industries. Other costs, such as continuing education, and administration costs are the second largest cost component (Ristoff, 2021).

Other Pet Services

Other pet services cover a wide range of industries. The major industries are grooming, training, and boarding (Brocker, 2021). These include grooming, operating shelters, boarding services, training, and pet sitting. These services include more than just dogs and cats. For example, 30 percent of dog owners, 17 percent of cat owners, had their pets professionally groomed, while almost 40 percent of bird owners had their birds' beaks and nails trimmed, or their wings clipped professionally (APPA, 2022a). Covid-19 reduced the demand for these services in 2019 and 2020, because many of these services are in person services that were restricted due to lockdown orders and the lack of travel (APPA, 2022b). The elimination of lockdown orders and an increase in pet ownership have increased the demand for pet services (APPA, 2022a; Brocker, 2021).

Boarding and training has perhaps shown the greatest change over time. At one time boarding was a kennel where people put their dogs while on vacation. Many kennels have transformed into "doggy day care" centers where owners drop their dogs off in the morning and pick them up after work. Some of the services these kennels offer are indoor pools, premium bedding, large play areas and televisions (Brocker, 2021). Cat owners appear to be less likely to put their cats in a kennel (APPA, 2022a). Dedicated fish tank servicing is also becoming more common. From 2018 to 2020, the number of fish owners surveyed who used a fish tank service increased from 11 percent to 28 percent. Almost half the owners of saltwater fish used a service (APPA, 2022a).

The primary cost of production of these services is wages (Brocker, 2021), as these are labor intensive activities. The barriers to entry for most of the businesses are low, so profits are not particularly high due to high levels of competition (Tang, 2026). These services are also local in nature, as developing a national brand is difficult. Most of these businesses are small, single location operations.

The Economic Contribution of the U.S. Pet Sector

It is estimated that 95.41 million households, or about 71 percent of the households in the U.S. have at least one pet (APPA 2026). Using self-reported annual expenditures on reported pets, the APPA provides

expenditure profiles of by pet species, sufficient to estimate total household expenditures on pets. Accordingly, Americans spent about \$157.86 billion on their pets in 2025.

The implications of macroeconomic effects are that once dollars are spent in the economy, those dollars are re-spent in waves, creating a ripple that expands across other industries. An example is in order. When pet owners buy pet food from a retailer, say Bill's General Store, the retailer will take a part of the earnings to purchase new shipments of the pet food sold to retain inventories. It will also take the remaining earnings to pay for workers, for electricity and other utilities, local taxes, and business services like advertising agencies, banks, etc. What is left over are profits to be paid to the owners of the store. After this first wave of transactions, a second wave of transactions will take place, once those that receive the payment take those dollars and spend them analogously. These ripples of succeeding transactions continue to spread throughout the economy much like the concentric ripples when dropping a stone in the lake. As businesses transact with other businesses, the wave of benefits disperses across all sectors of the economy. This effect is hindered only by the extent to which secondary transactions go to the purchase of imported goods, as dollars that leave the economy will no longer circulate in the economy.

The resulting economic effects are larger than the initial value of sales once we account for how those dollars are recirculated. This tendency for expenditures to give rise to relatively larger macroeconomic effects is called a multiplier effect, and it is well documented in economic sciences. We are careful to note that the macroeconomic effects reported here are not to be considered the economic impact of the pet industry, as a true economic impact statement mandates that we establish how dollars spent on pets would be spent in the absence of pets and how industries now providing goods and services for pet owners would transition in the absence of that demand. This would be a rather difficult task. Rather we interpret the estimates as economic contributions. Economic contributions are easier to estimate and only assert the economic activity that can be directly or indirectly linked to an industry of study. It does not require us to conjecture the nature of the world in the absence of pets (Watson, et al., 2007).

Direct effects will give rise to secondary effects as dollars re-circulate throughout the economy. The direct plus secondary effects measure the total macroeconomic contribution. As each industry has distinct economic profiles, including employment required per value of output, wage rates for those jobs, and contribution to taxes and gross domestic product, as those dollars circulate and affect other industries, we can predict their effects on other measures of economic activity, like employment, earnings, taxes, and national income, respectively. Table 1 shows the estimated macroeconomic contribution of consumer pet expenditures, including expenditures throughout the supply chain necessary to provide the pet-related goods and services that American consumers purchase.

Accordingly, of the 134.79 million U.S. households, approximately 71 percent or 95.41 million have pets. These households collectively spend just under \$157.86 billion a year on pet supplies and services. Modeling these expenditures show that U.S. pet industry contributes some \$437.70 billion in transactions nationwide. This is sufficient to support 5.11 million U.S. workers. National income, sometimes called gross domestic product, is the sum of labor income, proprietor income and net contributions of indirect business taxes. This roughly equates with the simulation model's treatment of earnings plus total taxes, shown in Table 3. Total tax revenues including local, state, and federal are estimated to be \$60.19 billion.

Technical Appendix: Input-Output Modeling and the IMPLAN Framework

This appendix provides a technical overview of Input-Output (I-O) analysis, specifically focusing on the IMPLAN (Impact Analysis for Planning) model. I-O analysis is a quantitative economic method that represents the interdependencies between different sectors of a regional or national economy.

1. How the Model Works: A Pedestrian Overview

At its core, an I-O model is a massive accounting system. Imagine every business in a region is listed on both the rows and columns of a giant spreadsheet. The rows show who a business **sells** to, and the columns show who they **buy** from.

When a new economic activity occurs—such as a factory opening—the model tracks the "ripples" of that spending. The factory buys steel and electricity (the first ripple). The steel mill, in turn, must buy more iron ore and hire more workers to meet the new demand (the second ripple). Those workers then spend their paychecks at local grocery stores and theaters (the third ripple). The model continues this tracking until the money eventually "leaks" out of the local economy through taxes, savings, or purchases made from outside the region.

2. Components of Economic Effects

The IMPLAN model categorizes economic impacts into four distinct levels to show how an initial change moves through the economy:

- **Direct Effects:** The initial change in the economy that is being modeled. This represents the immediate spending, hiring, and production by the specific industry or project under study.
- **Indirect Effects:** Often called "business-to-business" spending. These are the changes in sales, income, and employment within the local industries that supply goods and services to the direct industry.
- **Induced Effects:** Often called "household" spending. This occurs when the employees of the direct and indirect industries spend their new labor income on local consumer goods and services (e.g., healthcare, housing, and dining out).
- **Total Effects:** The sum of the Direct, Indirect, and Induced effects.

3. Key Economic Indicators (The Results)

IMPLAN reports typically measure the strength of an economy using four primary metrics:

- **Employment:** The number of jobs supported by the economic activity. This is generally expressed as an annual average and includes full-time, part-time, and seasonal positions.
- **Labor Income:** All forms of employment income, including employee compensation (wages and benefits) and proprietor income (payments received by self-employed individuals and unincorporated business owners).
- **Value Added (GDP):** This represents the difference between an industry's total output and the cost of its intermediate inputs. It is the most accurate measure of a project's contribution to the **Gross Domestic Product (GDP)** of the region, as it includes labor income, taxes on production, and gross operating surplus.

- **Output:** The total value of production. It represents the value of all sales plus any change in inventory. While Output is a common "headline" number, it is often much higher than Value Added because it double-counts the value of intermediate goods.

4. Understanding Multipliers

Multipliers are the mathematical representation of the "ripple effect" mentioned earlier. They are derived from the I-O tables and indicate how much total economic activity is generated for every one unit of direct activity.

$$\text{Multiplier} = \frac{\text{Total Effect}}{\text{Direct Effect}}$$

For example, an employment multiplier of **1.5** suggests that for every **1** new job created directly by a project, an additional **0.5** jobs are supported elsewhere in the local economy through indirect and induced effects.

5. Mathematical Foundation (The Leontief Inverse)

The logic of the IMPLAN model is built upon the Leontief production function, which assumes that inputs are used in fixed proportions to output. The fundamental equation is:

$$X = (I - A)^{-1}Y$$

Where:

- X is the vector of total industry output.
- I is the identity matrix.
- A is the technical coefficients matrix (showing the inputs required per dollar of output).
- Y is the final demand (the direct effect or "shifter" being modeled).
- $(I - A)^{-1}$ is known as the **Leontief Inverse**, which calculates the total requirements (direct and indirect) needed to satisfy the final demand.

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