

Supplementary materials

TABLE 1: Major cleaning steps for Rehome data

Cleaning Step	Reasoning
Removed “bonded” animal type and animals with a blank animal type	Could not determine which animal a “bonded” animal type and blank animal type referred to
Removed animals with “and”, “&”, “sisters”, “brothers”, or “bonded” in the animal’s name	Animals with these words in the name refer to more than one animal, but a profile only allows information for one animal. We could not determine which of the multiple animals the information referred to
Removed animals that did not have a relinquisher id associated with their profile	Most of these animals were “test pets” that developers used to troubleshoot the Rehome website. Not actual animals
Kept only animal’s most recent profile	Some animals had multiple profiles made. Some instances were because a user wanted to update their animal’s profile
Removed animals whose profile was created and closed on the same day	Unlikely an animal would be adopted or relinquished to a shelter on the same day
Removed animals with a missing age	Age was an important part of the analysis
Removed animals with “keep-pet”, “kept-pet”, “other”, “high-demand”, or “pending-adoption”	It was unclear to tell whether an animal was kept indefinitely or just for a period of time with the first 3 outcomes. The last 2 were removed because we wanted to keep only outcomes that reflected a definitive final outcome

TABLE 2: Major cleaning steps for shelter data:

Cleaning Step	Reasoning
Removed animals with missing intake and outcome date	Both intake date and outcome date were needed to truncate data to match Rehome date range
Removed animals that were not present in both the intakes data frame and outcomes data frame	The shelter data is a combination of an intakes data frame and outcome data frame, and the analysis needed information from both for an animal.
Removed animals that did not have the same number of intakes and outcomes	We wanted to make sure we only included animals that had a final outcome. animals with more intakes than outcomes were

	considered to still be in the shelter, and animals with more outcomes than intakes were most likely an error
Combined the same animals to get a final outcome and initial intake for the animal.	If an animal had either multiple intakes or multiple outcomes, then they showed up multiple times in the data frame. Combined them so each row represented an animal's initial intake and final outcome.
Removed animals that were missing age and size.	Since practically all the animals on Rehome included an age and size listed, we wanted to keep only animals with these characteristics listed in the shelter. Cats on Rehome did not list size, but some of the shelters did. Since we could not tell the exact reason why some shelters listed a cats size, we decided to remove all cats with a size listed.
Kept only animals with an "adoption", "euthanasia", "missing", or "died" outcome	These outcomes could be considered a final outcome for an animal looking for a new home.
Kept only animals who were surrendered by an owner/guardian and not for the intent of euthanasia.	We kept only animals that were looking for a new home, so animals surrendered for the intent of euthanasia were removed

TABLE 3: Classification for outcome types in Rehome data after cleaning

Outcome Type	Classification	Proportion	Definition
Adopted-Friend	Adoption	14.92%	Animal was adopted by a friend
Adopted-Other	Adoption	17.42%	Animal was adopted through some other means than a friend or Rehome
Adopted-p2p	Adoption	13.33%	Animal was adopted through Rehome
High-Demand	Not final outcome	14.14%	Animal received 7 applications. When an animal receives 7 applications, their profile is removed from public view
Keep-Pet	Unknown	25.99%	Relinquisher decides to keep animal, but it is unclear as to whether relinquisher plans on keeping animal indefinitely
Kept-Pet	Unknown	0.11%	Previous rendition of Keep-Pet
Other	Unknown	2.08%	Discontinued outcome and ambiguous
Pending-	Not final	0.82%	Adopter signed contact, but the relinquisher

Adoption	outcome		has not
Relinquished-Rescue	Negative	4.96%	Relinquisher surrendered their animal to a rescue
Relinquished-Shelter	Negative	6.22%	Relinquisher surrendered their animal to a shelter

TABLE 4: Count and classification for combined outcome types in shelter data

Outcome Type	Classification	Proportion
Adopted	Adoption	49.25%
Died	Negative	1.70%
Euthanasia	Negative	20.42%
Missing	Negative	0.08%
All Other Outcomes	Other	28.56%

TABLE 5: Classification for all outcome types in shelter data

Outcome	Classification
Admin Missing	Negative
ADOPT NH	Adoption
Adopted	Adoption
Adoption	Adoption
ADOPTION	Adoption
BEST FRNDS	Other
BODY DISPO	Negative
CANCELED	Other
Clinic Out	Other
Died	Negative
DISPOSAL	Negative
DIVERT	Other
DOA	Negative
Escaped	Negative
EUTH	Negative
Euthanasia	Negative
Euthanized	Negative
FOSTER	Other

MISSING	Negative
NULL	Other
PRE-EUTH	Negative
REDEEMED	Other
Redemption (Offsite)	Other
RESCUE	Other
Service Out	Other
Stolen / Lost	Other
TBE	Other
TRANSF HSC	Other
TRANSFER	Other
Transfer Out	Other
Unassisted Death	Other