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CITY SECRETARY
DALLAS, TEXAS

**AGENDA
SPECIAL CALLED CITY COUNCIL MEETING
TUESDAY, AUGUST 30, 2016
CITY HALL
1500 MARILLA
DALLAS, TEXAS 75201
9:00 A. M.**

9:00 am Invocation and Pledge of Allegiance 6ES

BRIEFING 6ES

Loose Dogs in Dallas: Strategic recommendations to improve public safety and animal welfare

Adjournment

The above schedule represents an estimate of the order for the indicated items and is subject to change at any time. Current agenda information may be obtained by calling (214) 670-3100 during working hours.

Note: An expression of preference or a preliminary vote may be taken by the Council on any of the items.

A closed executive session may be held if the discussion of any of the above agenda items concerns one of the following:

1. Contemplated or pending litigation, or matters where legal advice is requested of the City Attorney. Section 551.071 of the Texas Open Meetings Act.
2. The purchase, exchange, lease or value of real property, if the deliberation in an open meeting would have a detrimental effect on the position of the City in negotiations with a third person. Section 551.072 of the Texas Open Meetings Act.
3. A contract for a prospective gift or donation to the City, if the deliberation in an open meeting would have a detrimental effect on the position of the City in negotiations with a third person. Section 551.073 of the Texas Open Meetings Act.
4. Personnel matters involving the appointment, employment, evaluation, reassignment, duties, discipline or dismissal of a public officer or employee or to hear a complaint against an officer or employee. Section 551.074 of the Texas Open Meetings Act.
5. The deployment, or specific occasions for implementation of security personnel or devices. Section 551.076 of the Texas Open Meetings Act.
6. Deliberations regarding economic development negotiations. Section 551.087 of the Texas Open Meetings Act.

SUPPLEMENTAL NOTICE

"Pursuant to Section 30.06, Penal Code (trespass by license holder with a concealed handgun), a person licensed under Subchapter H, Chapter 411, Government Code (handgun licensing law), may not enter this property with a concealed handgun."

"De acuerdo con la sección 30.06 del código penal (ingreso sin autorización de un titular de una licencia con una pistola oculta), una persona con licencia según el subcapítulo h, capítulo 411, código del gobierno (ley sobre licencias para portar pistolas), no puede ingresar a esta propiedad con una pistola oculta."

"Pursuant to Section 30.07, Penal Code (trespass by license holder with an openly carried handgun), a person licensed under Subchapter H, Chapter 411, Government Code (handgun licensing law), may not enter this property with a handgun that is carried openly."

"De acuerdo con la sección 30.07 del código penal (ingreso sin autorización de un titular de una licencia con una pistola a la vista), una persona con licencia según el subcapítulo h, capítulo 411, código del gobierno (ley sobre licencias para portar pistolas), no puede ingresar a esta propiedad con una pistola a la vista."

Memorandum



CITY OF DALLAS

DATE August 26, 2016

TO Honorable Mayor and Members of the City Council

SUBJECT **Loose dogs in Dallas: Strategic Recommendations to Improve Public Safety and Animal Welfare in Dallas**

On August 30, 2016, the Dallas City Council will be briefed on the Strategic Recommendations to Improve Public Safety and Animal Welfare in Dallas by The Boston Consulting Group. The briefing materials are attached for your review.

Please contact me if you have any questions or need additional information.

A handwritten signature in blue ink, appearing to read 'Joey Zapata'.

Joey Zapata
Assistant City Manager

Attachments

c: A.C. Gonzalez, City Manager
Christopher D. Bowers, Interim City Attorney
Craig D. Kinton, City Auditor
Rosa A. Rios, City Secretary
Daniel F. Solis, Administrative Judge
Ryan S. Evans, First Assistant City Manager

Jill A. Jordan, P.E., Assistant City Manager
Eric D. Campbell, Assistant City Manager
Mark McDaniel, Assistant City Manager
Jeanne Chipperfield, Chief Financial Officer
Sana Syed, Public Information Officer
Elsa Cantu, Assistant to the City Manager – Mayor & Council



**Loose dogs in Dallas:
Strategic Recommendations to Improve
Public Safety and Animal Welfare**
Presentation of findings to City Council

August 30, 2016

THE BOSTON CONSULTING GROUP

Agenda

Context

Key Findings

Recommendations

Next steps

Context

In June 2016, BCG was engaged on behalf of the city of Dallas to evaluate opportunities to improve public safety, while safeguarding and improving animal welfare.

BCG's assignment was to:

- Quantitatively understand the **supply of dogs** in Dallas
- Identify **community priorities** given varying constituent perspectives
- Identify **best practices** from other animal services organizations across the US
- Identify and **prioritize levers** to maximize impact on public safety and animal welfare
- Synthesize findings in a **strategic plan for the community** of Dallas to achieve its goals

BCG scope was constrained by:

- Focus on **dog population² only** (vs. all animals) given link to public safety
- Not inclusive of process or recommendations surrounding **animal cruelty investigation**
- BCG efforts focused on improving the current situation, **not assessing prior events** unless critical to path forward

1. Live Release Rate from shelter; 2. Despite focus on dogs, most recommendations related to increasing live release rate expected to have significant positive impact on cats and other animals entering DAS

BCG developed a strong understanding of the landscape

Information Type

Actions Taken

Interviews with Stakeholders

100+ stakeholder interviews completed including:

- **Government:** Council Members, Animal Commissions, Code & DAS, DPD
- **Non-profits:** Animal rescue organizations, funders/philanthropies
- **Citizens:** Town halls and specific involved individuals

~40 interviews with stakeholders from comparable benchmark cities ¹

including Atlanta, Austin, Jacksonville, Las Vegas, Los Angeles, Miami, Reno, San Antonio, and San Diego

Data Analysis

Detailed analysis of all relevant data sources:

- **DAS data & Government:** Chameleon, bite reports, 311, 911, Sanitation
- **Community Data:** Historical S/N activity
- **Public Data:** Census data

Primary Research

Extensive primary research to collect new and unique information:

- **Census:** Roaming dog census in North and southern Dallas
- **Ride-a-longs:** DAS field day, Targeted Response Team and CARE
- **Surveys:** Community, Rescue/welfare organization

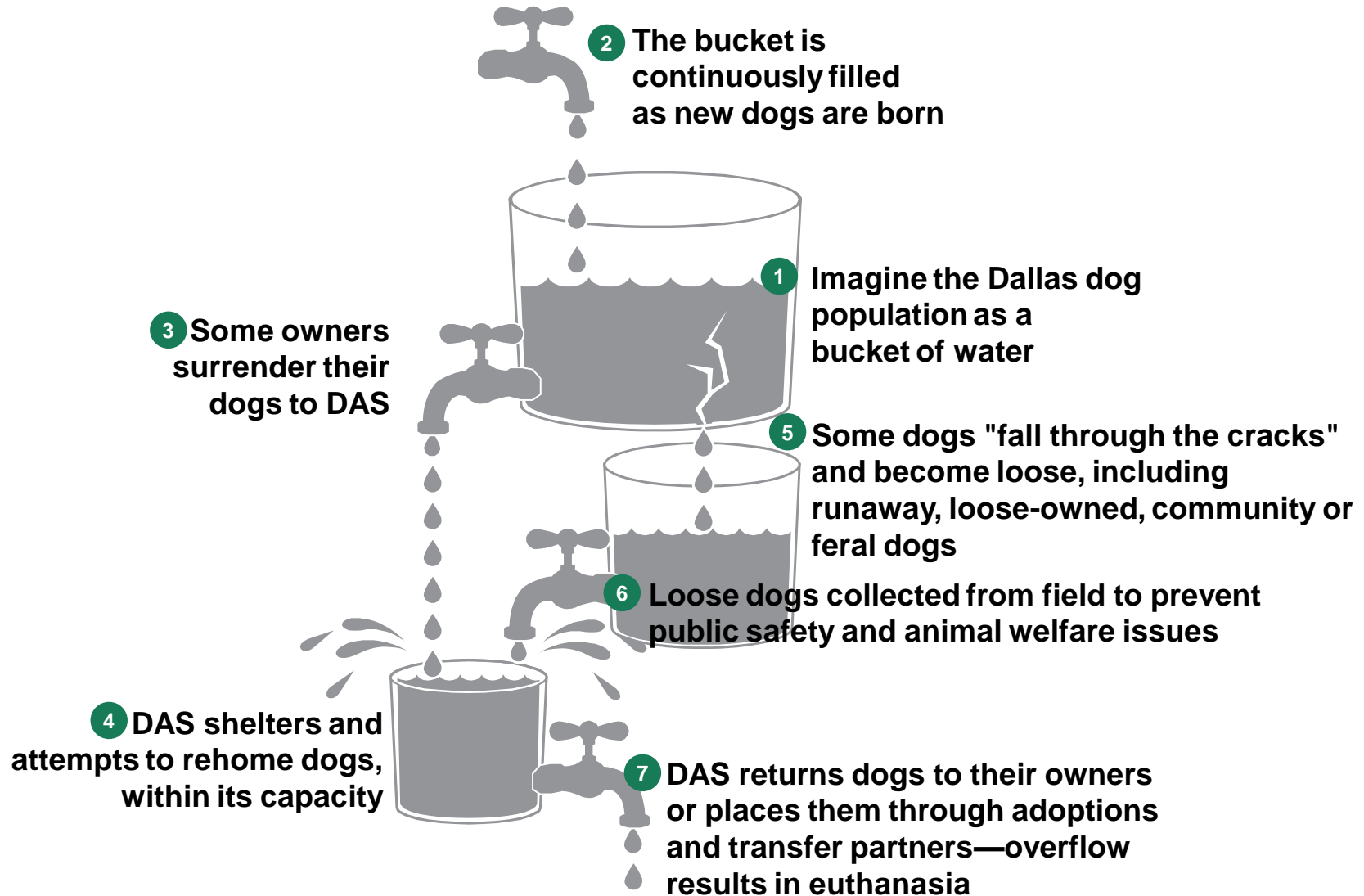
Secondary Research

Gathered and reviewed large volume of available secondary research:

- **Industry:** HSUS, ICAMP, WSPA, ASPCA
- **Academic:** The Ecology of Stray Dogs, Anthrozoos, Advances in Companion Animal Behavior, etc.

1. Atlanta, Las Vegas, Miami, Reno, and San Diego all operate animal services on the county-level. Information gathered from Fulton County, Clark County, Miami-Dade County, Washoe County, and County of San Diego, respectively.

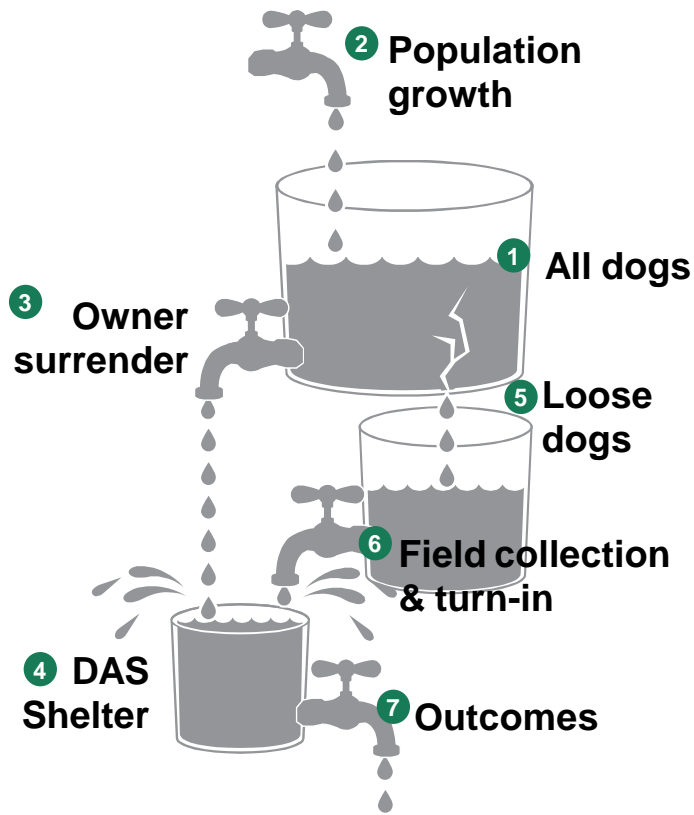
Dallas dogs can be conceptualized as buckets and flows



Issue is difficult to fix because it requires coordinating efforts

Actions that impact only a single point often create unintended consequences

Isolated single actions compromise public safety or animal welfare, or lack sustainability



Single Action

Direct or Unintended Consequence

6 Pick up all the loose dogs	2 People replace pets given large supply of new dogs
5 Encourage community to keep loose dogs off the street	7 Euthanasia spikes from increased intake
4 Build a bigger shelter	2 If breeding continues, dog population overwhelms the most responsible of owners
2 S/N all the dogs	3+6 Intake fills shelter, returns to "business as usual"
	5 Owned pets still roam the streets

Agenda

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Executive Findings

Dallas Animal Services (DAS) plays key role responding to 311 requests and as open admission shelter

- Each year, DAS receives **48K service requests**, takes in **20K dogs**, serves **100K customers**
- DAS has made **improvements since 2011** across shelter operations, LRR, and in other areas
- DAS has **historically been underfunded**, but gap in municipal funding has been closed

BCG also observed a number of urgent public safety issues facing Dallas residents:

- **~85% of dogs in southern Dallas not spayed or neutered**, contributing to population growth
- Census estimates **~8,700 loose dogs in southern Dallas**
- DAS bite reports indicate bites from **loose-owned dogs have increased** 23% annually
- DAS **field intake has fallen ~4%** annually since 2011, where intake per officer lags peer cities
- DAS issues ~12 citations per day, but **44% of all citations not responded to** by defendants

We also observed opportunities for continued improvement regarding animal welfare:

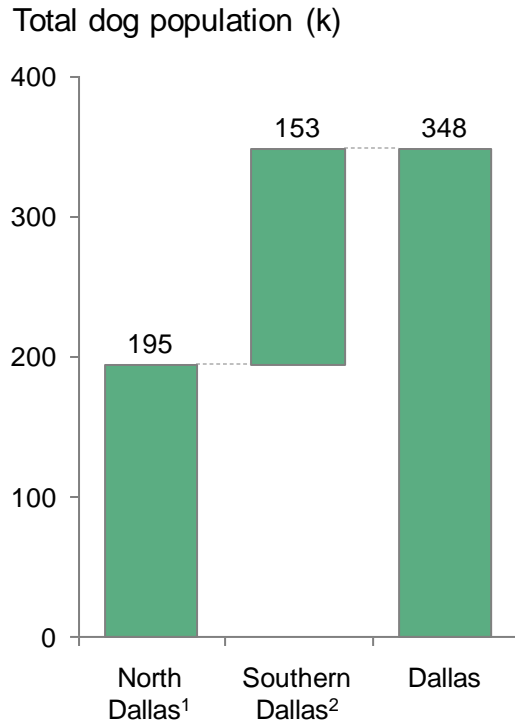
- Today's level of low-costs spay and neuter **surgeries not sufficient to reduce population** of intact animals
- Today's **LRR of ~59% trails aspirations** of 90% LRR
- Despite ~140 partnerships, DAS **lacks a contractual partnership** with a large-scale brick-and-mortar rescue organization, something that is critical to fill gaps in available government funding

Finally, we observed opportunities for improvement regarding organization and communication

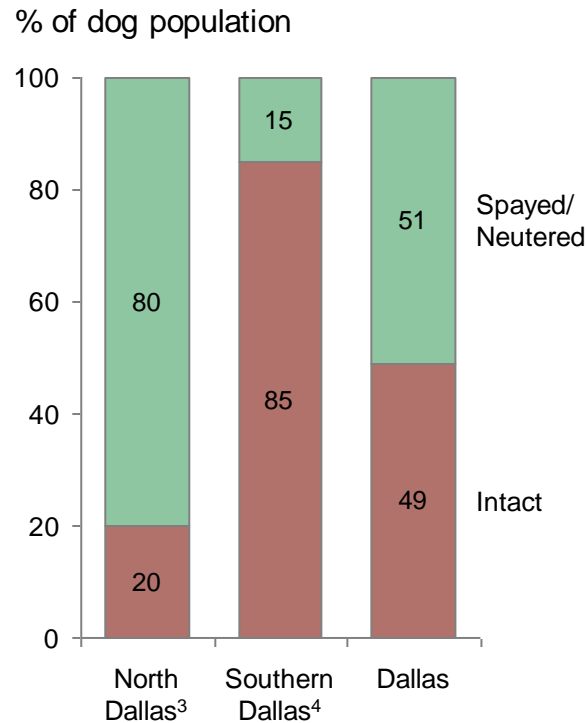
- DAS's existing **organizational structure limits** its resources, communication, execution and accountability
- **Opposing factions** exist within the Dallas' animal welfare community that have prevented collaboration

Dallas home to ~350k dogs, with low adoption of spay and neuter in southern Dallas resulting in high population growth

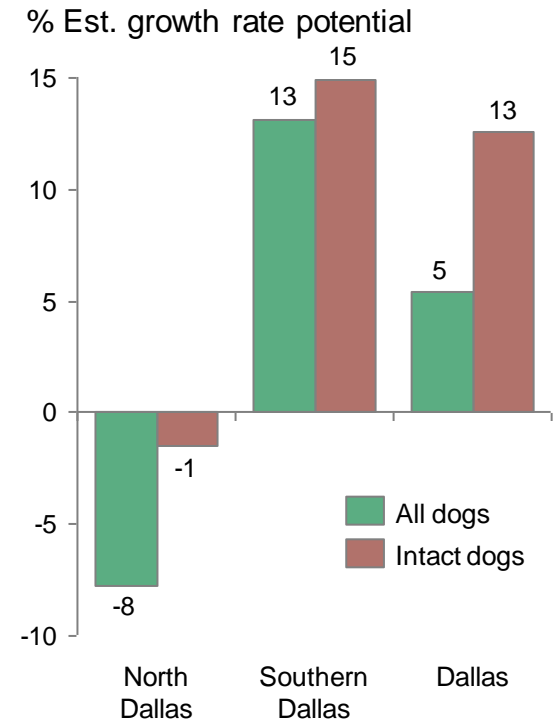
Dallas home to ~350k dogs¹



Spay and neuter (S/N) levels vary between North & southern Dallas



Southern Dallas dog population in position to grow quickly⁵



1. Dog population is a function of households and dogs per household. There are 333,700 households in North Dallas and 0.584 dogs per household based on AVMA; 2. There are 173,598 households in southern Dallas and 0.883 dogs per household. Dogs per household is average of American Veterinary Medical Association (0.583 dogs/HH) and Pets for Life (1.182 dogs/HH); 3. Assumes 80% sterilized in North Dallas based on local expert interviews; 4. Based on 2015 DAS shelter and field intake – and inline with local expert interviews; 5. Growth rates based on starting population, birth rate, and death rate. Birth rate assumes 1.16 litters a year, 7 puppies a litter, 75% birth survival rate for an average of 6.09 puppies a year per intact female. Sex ratio assumed to be 50/50. A 10 year life expectancy, implies 10% of dogs die in a given year; Note: I-30 used to separate North from southern Dallas. North Dallas includes districts 2,6,9,10,11,12,13,14. Southern Dallas includes districts 1,3,4,5,7,8 ; Source: DAS Chameleon database, Experian Current Year Estimates (Q2 2015) for population data, AVMA, ASPCA, PFL, Birth and Death Rate Estimates of Cats and Dogs 2004, ASPCA, Canine Perinatal Mortality Study 2012, BCG analysis

Population growth slowed by DAS and community efforts, but will only "pay off interest, not principal"

Population growth contained in two ways

A DAS collection & placement

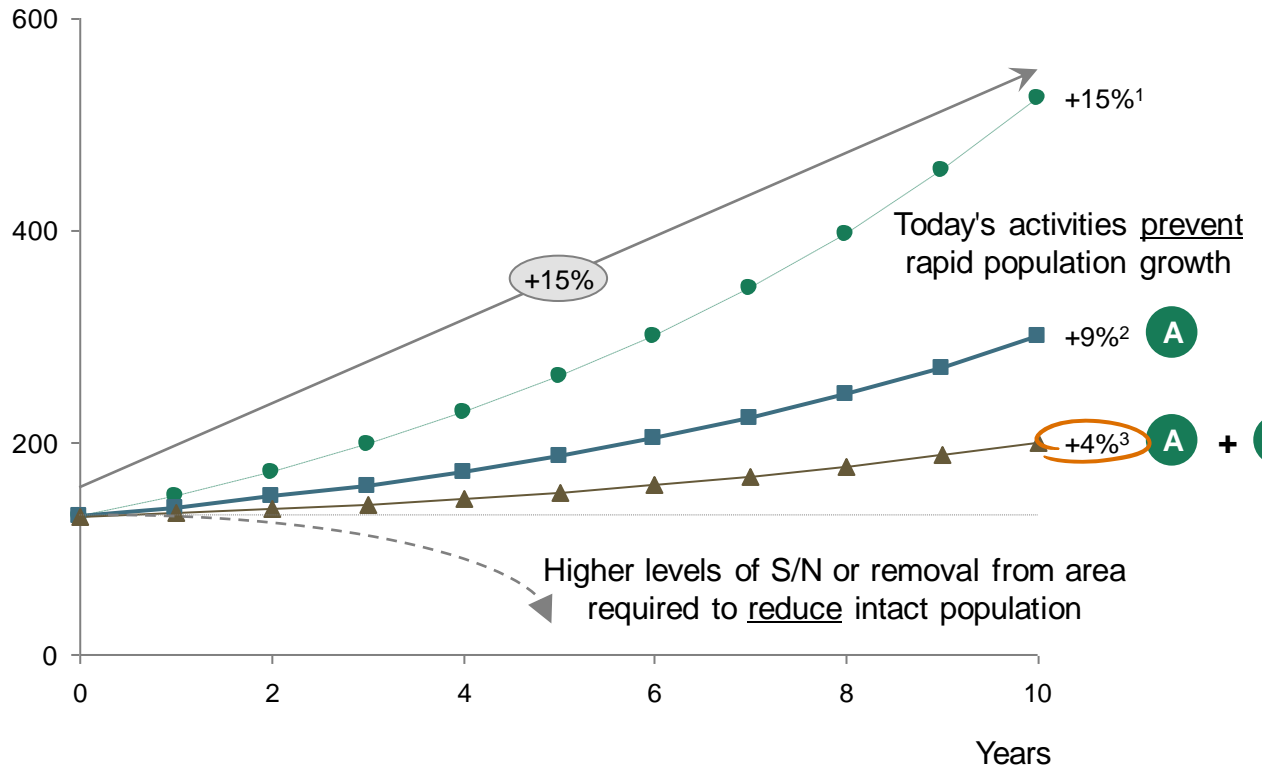
- DAS removes dogs from area through Field and OTC collects
- DAS places some dogs back into community that have been S/N

B Low-cost S/N surgeries

- DAS and community organizations offer low-cost S/N surgeries that serve dog-owners in the community

Today, efforts have contained growth in southern Dallas, but not reduced intact population

Intact Dogs in southern Dallas (k)



1. Assumes no spay and neuter, adoptions, RTO, or transfers; 2. Assumes no spay and neuter, however, number of adoptions, RTO, and transfers into southern Dallas constant to 2015; 3. Surgeries completed by BFBD, SNN, SPCA, DAS (through BFBD), DCAP, PFL specific to southern Dallas. Assumes levels of S/N are constant to 2015. 4% does not align to next slide, due to difference in 10 year CAGR and one year growth rate. Faster growth seen in later years.; Note: Assumes starting intact population of 130,294 dogs in southern Dallas, 6% roaming, 50/50 sex ratio, 1.16 litters a year, 7 puppies a litter, 75% birth survival rate, 10 year life expectancy, 2.8% of owned dogs breeding; Source: AVMA, ASPCA, American Kennel Club, Pets for Life Canine Perinatal Mortality Study 2012, Birth and Death Rate Estimates of Cats and Dogs 2004, PetMD, Development of a Model for Estimating the Size and Dynamics of Pet Dog Population 1994, BFBD, SNN, SPCA, DAS Chameleon database, DCAP, PFL, BCG analysis

Based on results, estimate ~8,700 loose dogs in southern Dallas

Sizing population can be helpful in identifying resources needed to address issue and progress tracking

**What did we see:
136 dogs along 235 miles**

BCG counted loose dogs on ~235 miles driven

	Census Trips	Miles Driven	Dogs Seen	Average Per Mile
North Dallas	5	59	1	0.02
Southern Dallas	15	176	135	0.77

- Also observed citizens walking with sticks for protection on most routes in southern Dallas

**What does it mean:
~8,700 loose dogs in southern Dallas**

Observations extrapolated based on road mileage to estimate total loose dogs in Dallas

	Total Road Miles ¹	Dogs Seen / Mile	Unseen Multiplier ²	Average
North Dallas	2,226	0.02	n/a	n/a
Southern Dallas	1,751	0.77	~6.45x	~8,700

Math shown is simplified, but representative based on approaches endorsed by:

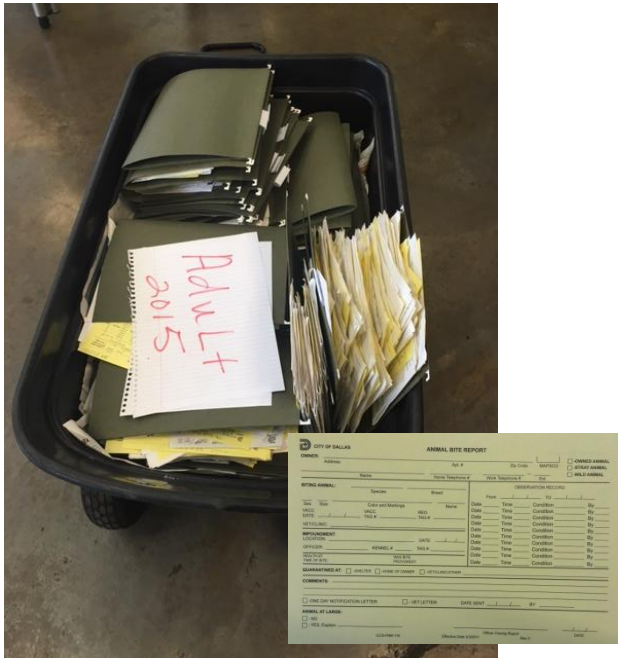


Census does not provide indication of trend and would need to be repeated in the future to assess progress

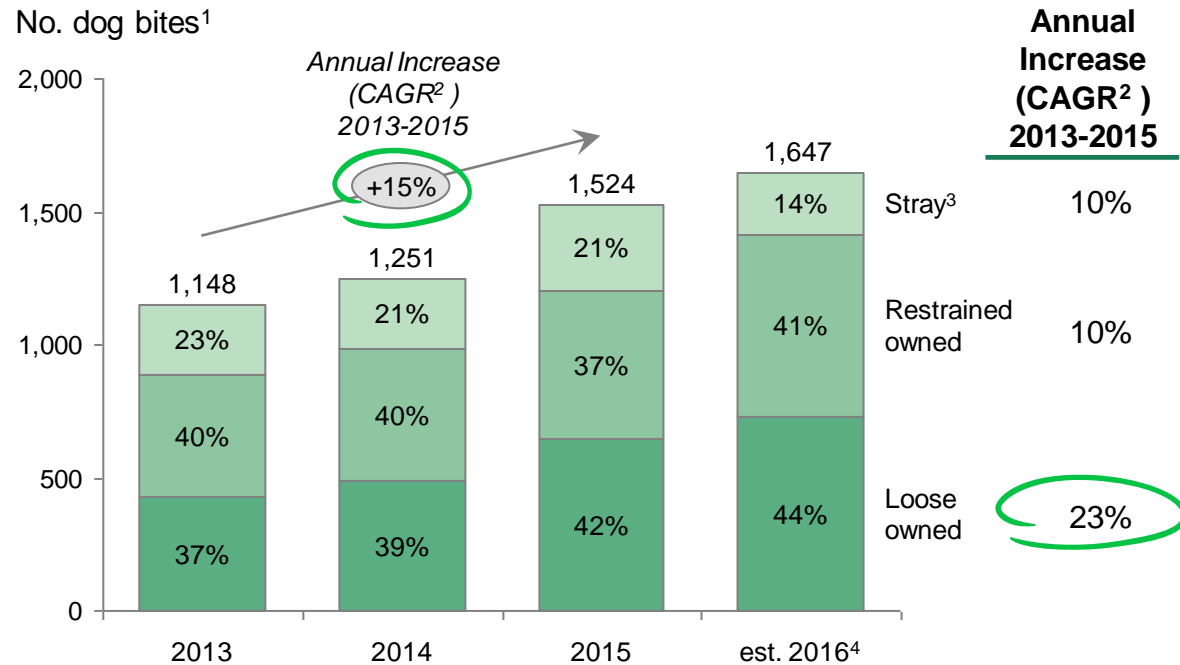
1. Roadway mileage from Navteq; 2. Multiplier based on capture-recapture approach outlined in The Ecology of Stray Dogs; Note: Utilized photographic capture-recapture (Beck Method) endorsed by WHO as well as sampling approach endorsed by WSPA; Census routes completed between June 28 – Aug 2nd between 6am - 730am; Source: WHO Dog Population Management Guide 1990, WSPA Surveying Roaming Dog Population, Navteq, The Ecology of Stray Dogs, BCG analysis

Reported dog bites in Dallas up 15% annually from 2013-15 with bites from loose-owned dogs growing at 23%

DAS completes a "bite report" for every reported dog bite per CDC guidelines



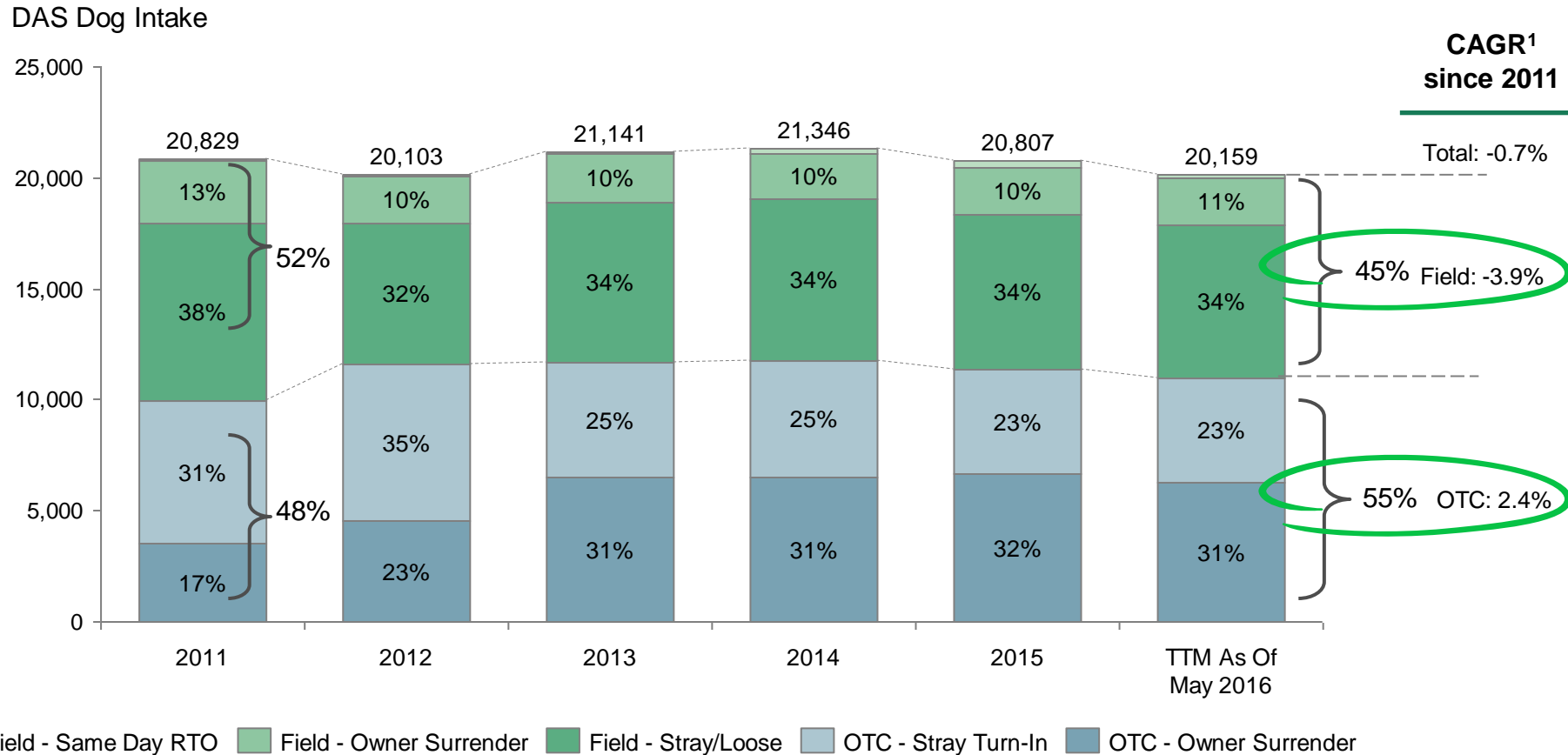
In Dallas, dog bites, especially those from loose-owned, dogs are growing



1. DAS dog bite reports from 2013-2016 (n=4,290); BCG performed manual data entry of key fields; 2. Compounded annual growth rate; 3. Stray defined as a dog without an owner; 4. Compared the total dog bites for January to March of 2015 and 2016 to find ~1.1x growth in 2016. Applied ~1.1x to the total number of bites in 2015 (1,524) to estimate 2016 total dog bites. ; Note: For the fields that were left blank in the bite reports, assumed those reports were distributed in line with completed records. Whether dog was stray or owned had 213 incompletes (~4.9%). Of owned dogs, 1,384 (42.9%) had the "at large," or loose, field incomplete; Note: Dog bites are thought to be underreported in the US. In the future, better tracking of bites may result in an apparent increase as previously unreported bites begin to be reported; Source: DAS bite reports 2013 - Q1 2016, BCG analysis

Since 2011, DAS dog intake flat, with ~4% annual decline in field intake offset by increase in over-the-counter surrenders

DAS Intake Volume by Type

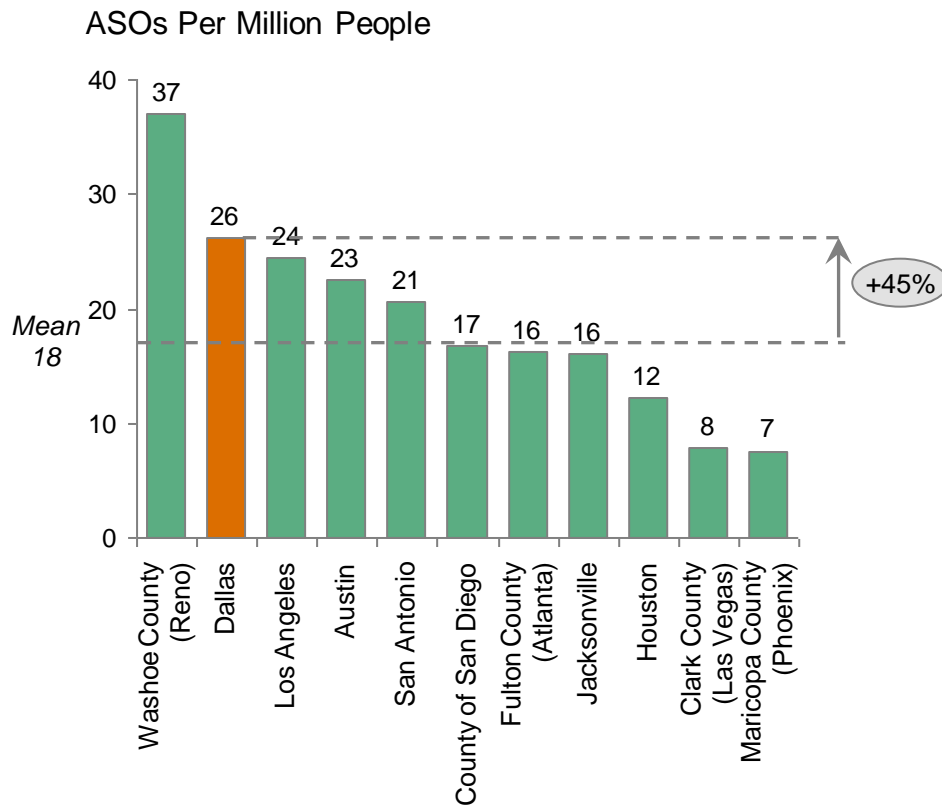


1. CAGR = compound annual growth rate. 2. TTM = trailing twelve months; Note: 'Field - Same Day RTO (return-to-owner)' includes dogs with primary intake type of 'Field' and any intake subtype and reunited with owner on the same day; 'Field - Owner Surrender' includes dogs with primary intake type of 'Field' and intake subtypes of 'owner surrender' or 'confiscated'; 'Field - Stray' includes dogs with primary intake type of 'Field' and intake subtype of 'stray' or 'confined'; 'OTC - Stray Turn-In' includes dogs with primary intake type of 'OTC' and intake subtype of 'stray'; 'OTC - Owner Surrender' includes dogs with primary intake type of 'OTC' and intake subtypes of 'owner surrender' or 'confiscated'

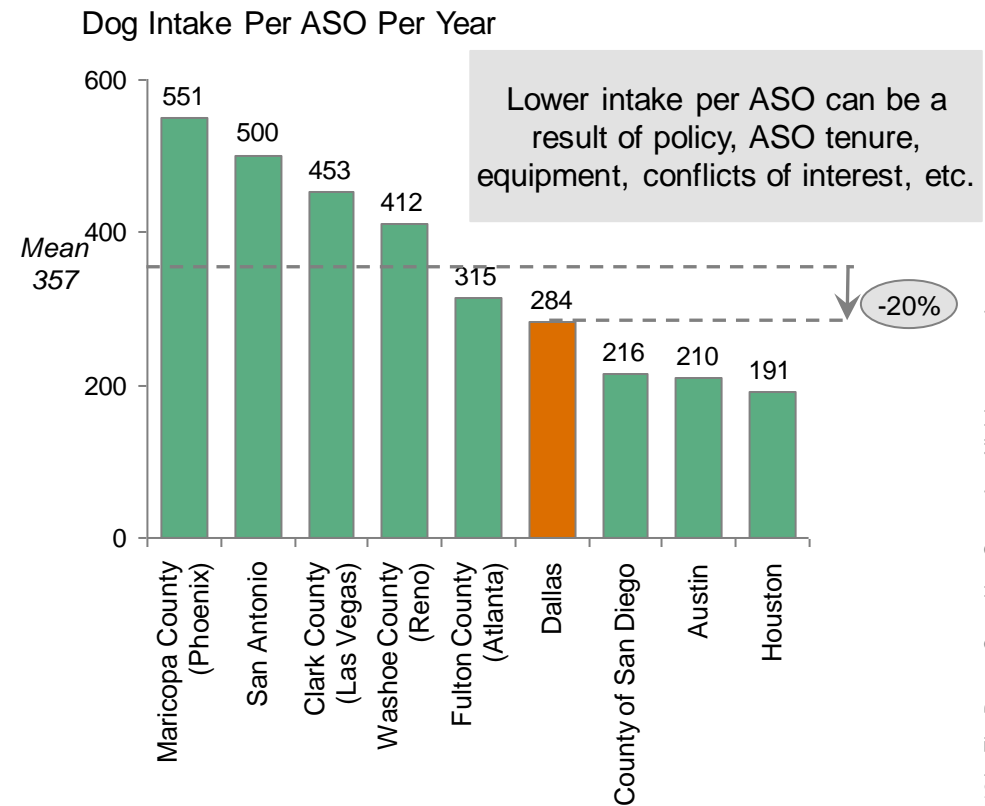
Source: DAS Chameleon database, BCG analysis

Compared to peers, DAS has higher ASO staffing levels and lower ASO field intake

DAS has 45% more ASOs per million people than benchmarks...



...but, DAS field collection lags by 20%



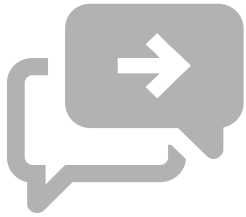
Note: Assumes 33 DAS ASOs with a field intake of 9363 for CY 2015.

Source: DAS Chameleon Database, Maricopa County Yearly Report (2016), Clark County Animal Control, County of San Diego Animal Services, Houston BARC, Fulton County Animal Services, Austin Animal Services, Jacksonville Animal Services, San Antonio Animal Services, Los Angeles Animal Services, Washoe County Regional Animal Services . Population from US Census Data (2013), BCG analysis

DAS Animal Services Officers responsible for 311 responses, Field Collection, Euthanasia — majority of work is reactive

Field work

Reactive (311)



Respond to 311 requests

Collect animals, return dogs to owners, issue citations, and educate community

Sweeps, cites, educates

80% of ASO time

Proactive (Patrol)



Target one area with sweeps, door-to-door education, and citations (CARE team)

Perform sweeps of some neighborhoods

10% of ASO time

Shelter work

Shelter

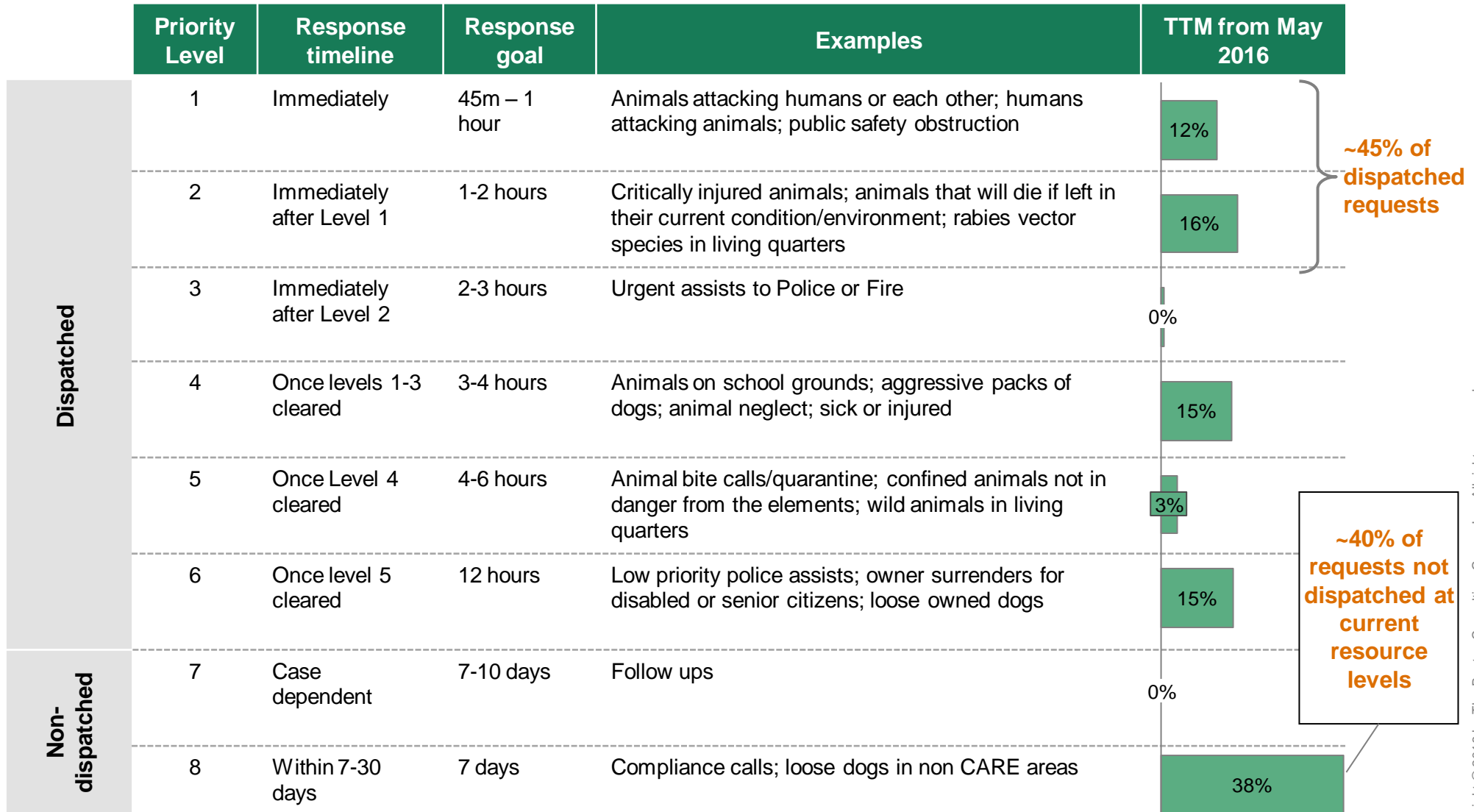


Create and investigate bite records

Euthanize dogs at the shelter

10% of ASO time

Annually, DAS fields ~48k calls, ~60% of which are dispatched for ASO response

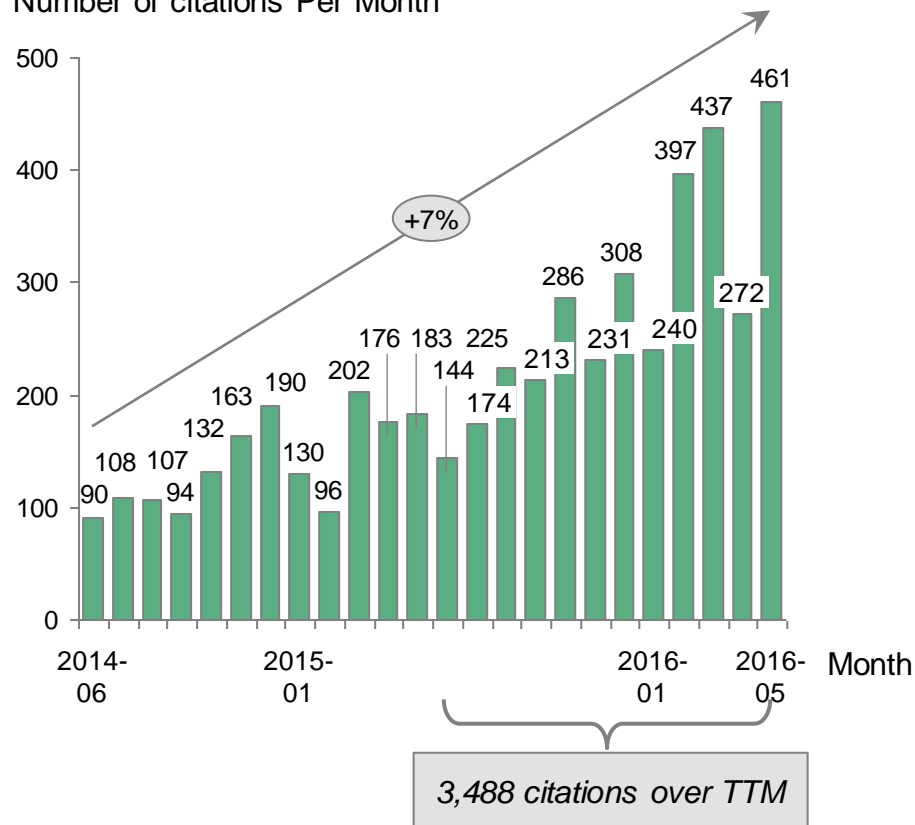


1: Range is 6/1/2015-5/31/2016; Note: TTM is trailing twelve months. Applied Volumes for the calls that had outcomes (~44k) to all calls; Source: 311 interview, Animal Service Request Types matrix from 311 prepared on 6/20/2016, and "Follow-up to Dallas Animal Services Update" to Quality of Life Committee on 5/6/2016, BCG analysis

DAS-issued citations growing at ~7% monthly, but only 56% received a response

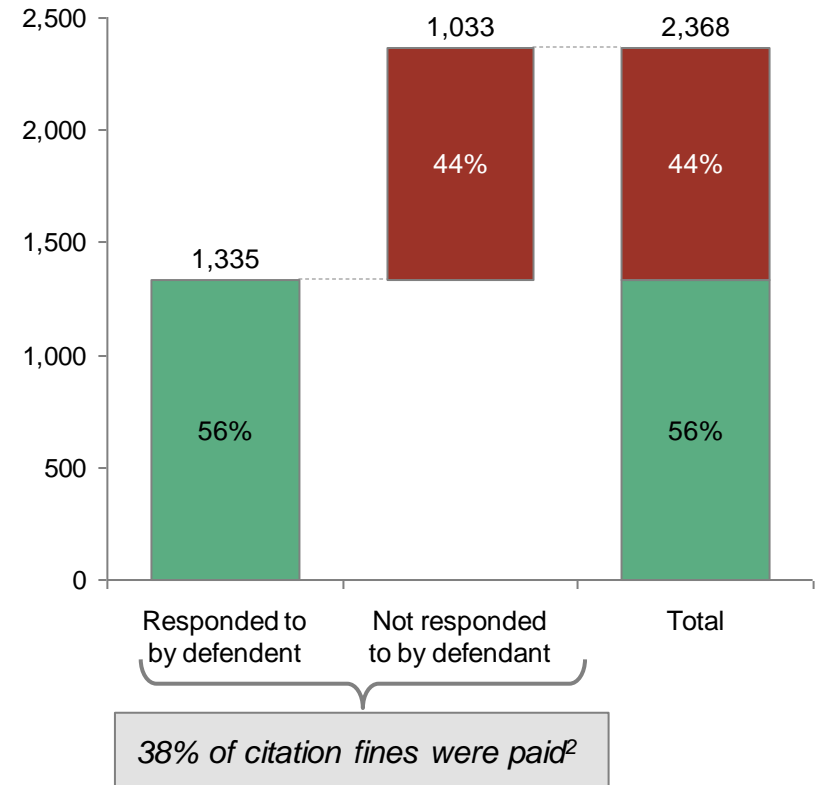
Monthly citations growing 7% monthly

Number of citations Per Month



44% of citations issued in 2015 were not responded to

No. citations 2015

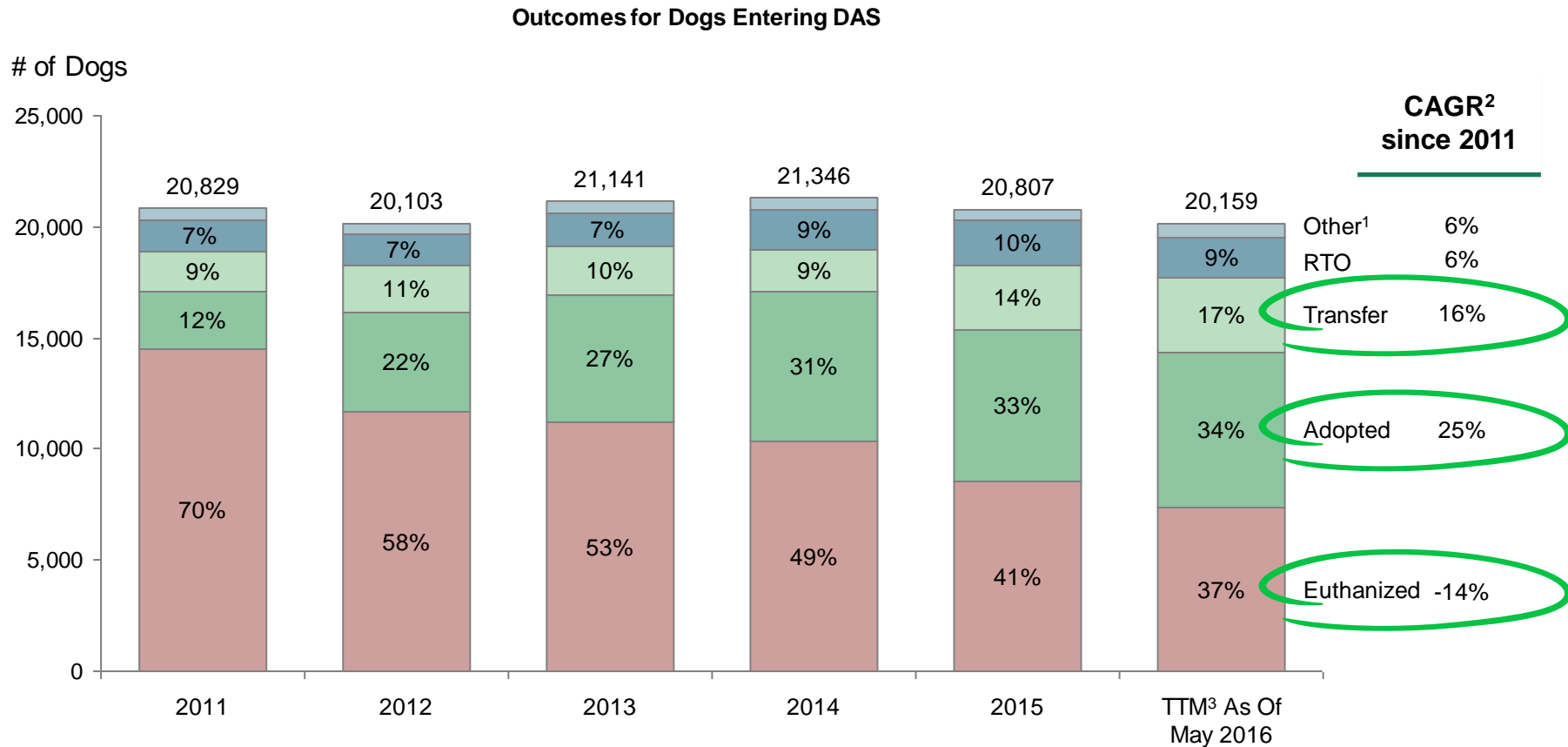


1. For citations that had multiple outcomes classifications, included the outcome with the highest violation number with the assumption that that is the most recent outcome
 2. Maximum amount citation fines due was \$466,589.73, maximum total paid was \$177,661.37. In addition, some citations indicate that a defendant has not responded, but a citation has been paid.

Note: TTM = trailing twelve months
 Source: Citation data from municipal courts 2015

Today ~60% of dogs achieve positive outcomes

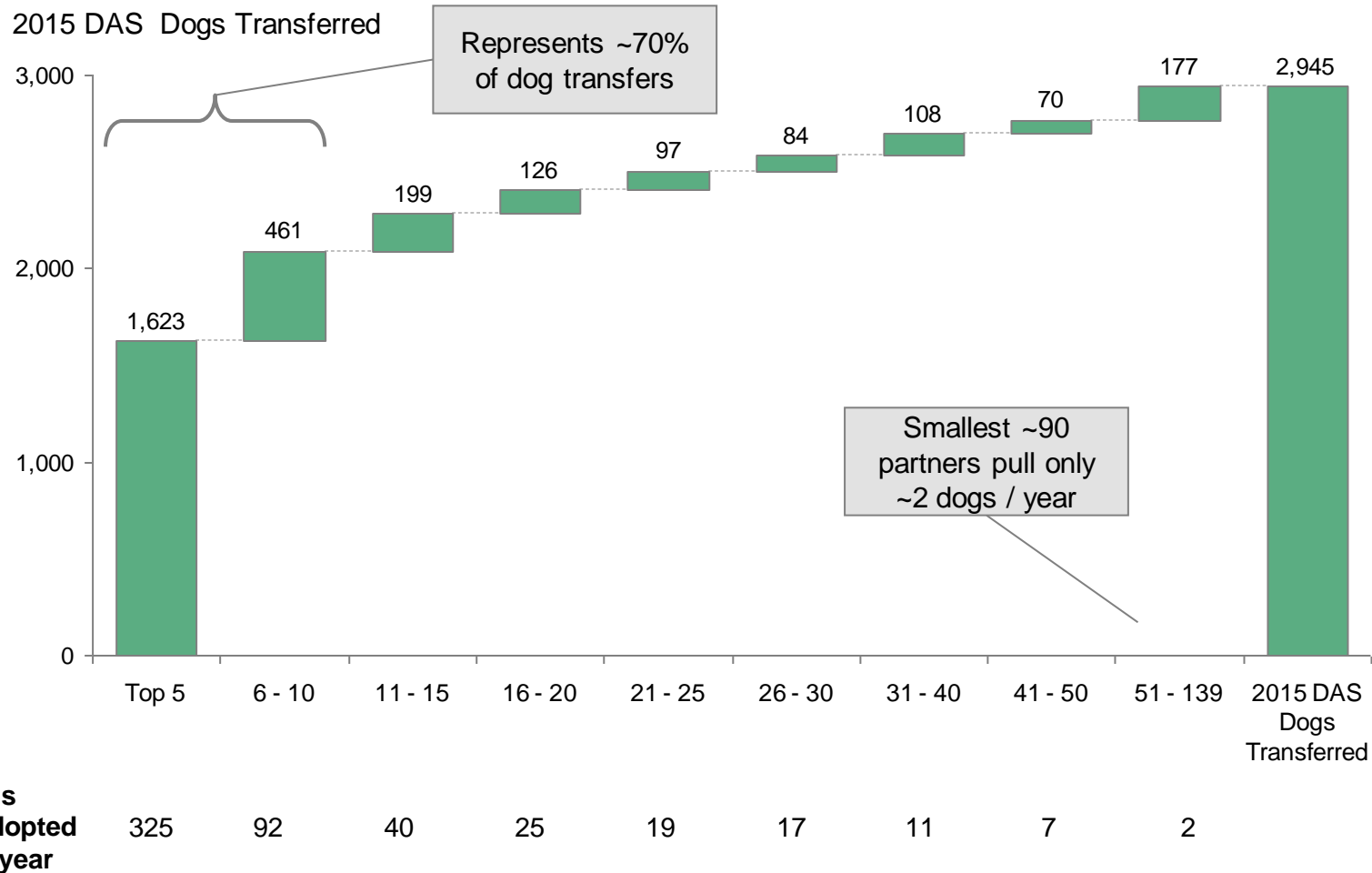
In past five years, adoptions have grown 25% annually, transfers +15% amid flat volumes



Each year DAS has increased live outcomes

1. Other includes animals that died in or were lost at the shelter including those that were dead on arrival (DOA). 2.CAGR = compound annual growth rate. 3. TTM = trailing twelve months. Source: DAS Chameleon database, BCG analysis

DAS' top 10 transfer partners by volume account for ~70% of volume, with ~140 total partners pulling dogs in 2015¹



1. Among smaller volume rescues are organizations that focus only on a specific breed or have much smaller kennel capacity than other rescues
 Source: DAS Chameleon database, BCG analysis

DAS does not have a high-volume relationship with any of the three largest rescue organizations in north Texas

(Data self-reported by rescue organizations)

	Top 3 Rescues In Dallas	Other Rescues In Dallas	Total
# of rescue / transfer organizations	3	~55 (limited to survey)	30,867
Annual dog intake	20,373 (66%)	10,494 (34%)	30,867
Dog intake from DAS	386 (2%)	2,559 (24%) ¹	2,945 (10%)

DAS has low share with Dallas' largest rescues
Top 3 Rescue organizations in Dallas pull only 2% of their annual intake from DAS

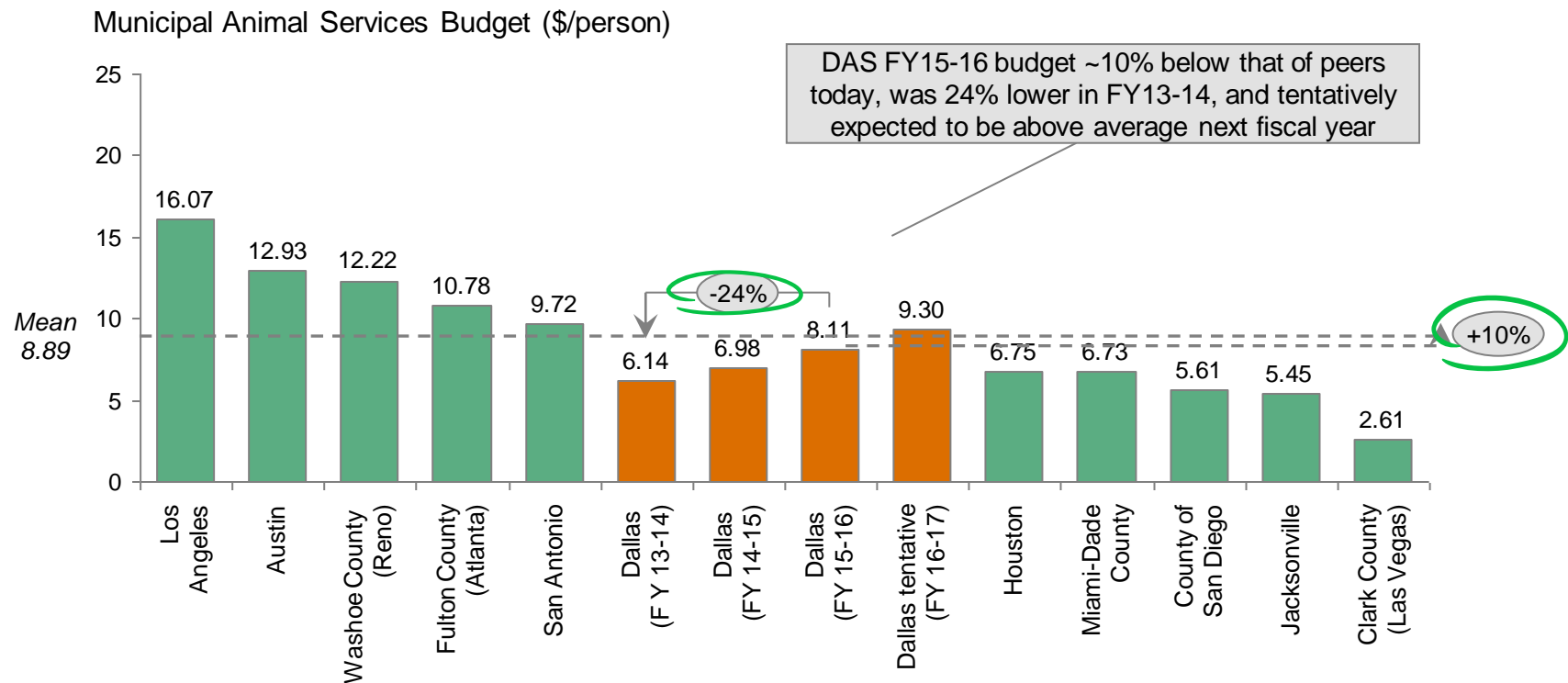
1. Assumes that all transfers not from the top 3 rescues are attributed to the 55 survey participants. In reality, there are 100+ transfer partners, so the actual % of dog intake from DAS by rescues outside of the top 3 is <24%

Note: Intake numbers from CY 2015

Source: Rescue and Animal Organization survey (n=72); DAS Chameleon database; BCG analysis

Historically DAS has been under funded relative to peer cities, but gap has been closed with proposed budget

Municipal Spending on Animal Services for Benchmark Cities

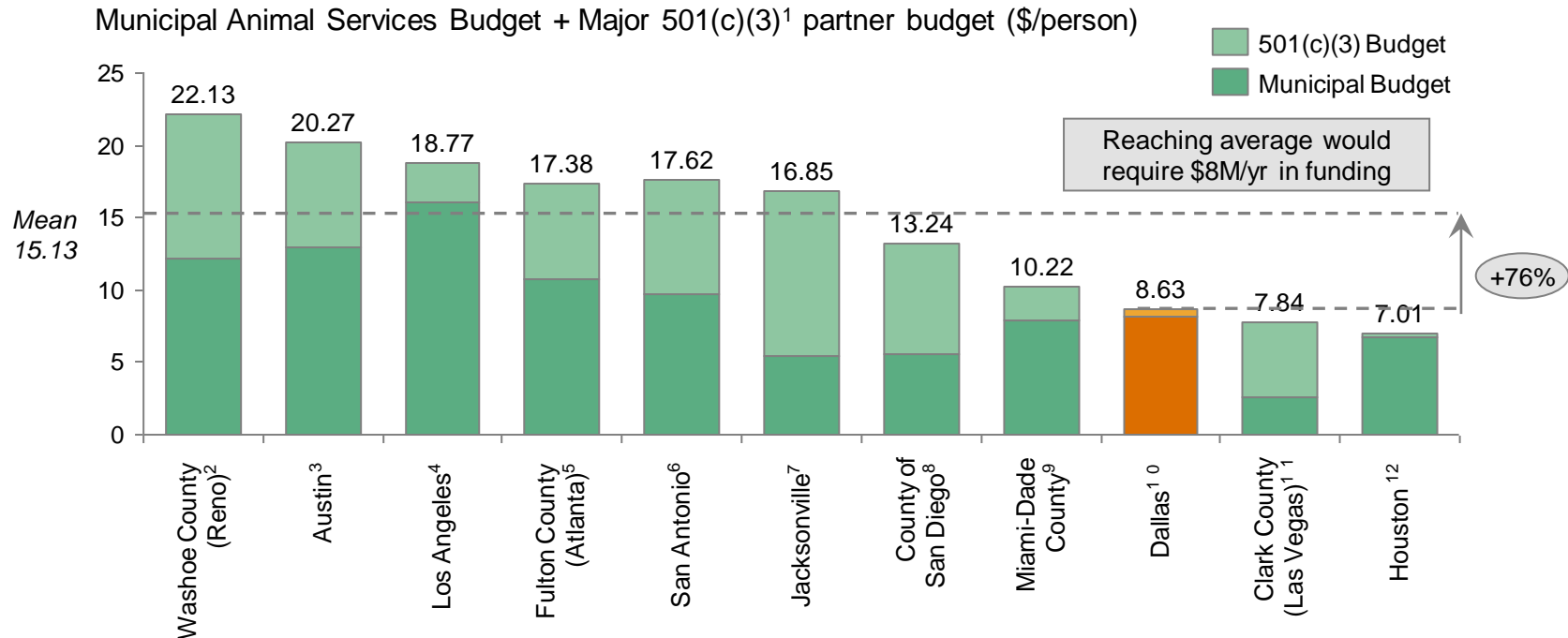


Note: Mean excludes Dallas, Source: Interviews with management from Los Angeles Animal Services, Washoe County Animal Services, County of San Diego Animal Services, San Antonio Animal Care Services, Fulton County Animal Services Austin Animal Services, Dallas Animal Services FY 2015 General Fund Budget, Jacksonville Animal Care and Protective Services, and Clark County Animal Control.), Lifeline Animal Project 990 Tax Form (2014), Miami-Dade Animal Services Projected Budget (2015), US Census Bureau 2013 Population Estimate and BCG analysis

DAS could augment its funding through an explicit 501(c)3 partnership – a best practice seen in peer cities

100% of partner budget shown to demonstrate potential; partnerships enable shelters to transfer activities and costs to their partner

Municipal and Non-Profit Spending on Animal Services for Benchmark Cities



1. Outside of Dallas, includes only 501(c)(3)s that were highlighted during benchmarking interviews as being close partners with either contractual obligations, an MOU, or similar; 2. Budget includes contracted partner: Nevada Humane Society; 3. Budget includes MOU partners: Austin Pets Alive! and Austin Humane Society; 4. Budget includes MOU Partners: Best Friends Animal Society and Found Animals Foundation; 5. Budget includes close partner: The Atlanta Humane Society; 6. Budget includes MOU and contract partners: Animal Defense League, San Antonio Humane Society, San Antonio Pets Alive!; 7. Budget includes contracted partner: The Jacksonville Humane Society and close partner First Coast No More Homeless Pets. 8. Budgeted includes MOU partner San Diego Humane Society; 9. Budget includes major partner: Humane Society of Greater Miami; 10. Budget includes DAS budget FY 2015-2016 and DCAP; 11. Budget includes contract partner: The Animal Foundation; 12. Budget includes contracted partner: Rescued Pets Movement. Note: Mean excludes Dallas; Source: Interviews with management from Los Angeles Animal Services, Best Friends Animal Society Washoe County Animal Services, County of San Diego Animal Services, San Diego Humane Society, Fulton County Animal Services, Austin Animal Services, Austin Humane Society, Austin Pets Alive!, San Antonio Humane Society, Dallas Animal Services, Humane Society of Greater Miami, Jacksonville Animal Care and Protective Services, Jacksonville Humane Society, Austin Pets Alive!, and Clark County Animal Control. Animal Foundation 2015 Yearly Report, the Nevada Humane Society 990 Tax Form (2014), San Antonio Pets Alive! 990 Tax Form (2014), Animal Foundation 990 Tax Form (2014), Animal Defense League 990 Tax Form (2015), Lifeline Animal Project 990 Tax Form (2014), Atlanta Humane Society 990 Tax Form (2014), Rescued Pets Movement 990 Tax Form (2014), Miami-Dade Animal Services Projected Budget (2015), First Coast No More Homeless Pets 990 Tax Form (2014), US Census Bureau 2013 Population Estimate and BCG analysis

Existing DAS organization structure negatively impacts its resourcing, communication, execution and accountability

Existing structure:
Subdivision within a department

1 Resources and Talent

- ✗ Hiring talent with requisite experience and capabilities difficult due to lower profile and complexity
- ✓ Can receive layover funds from parent department

2 Communication and Coordination

- ✗ Lacks a "seat at the table" with Dallas's senior city leadership
- ✗ Perceived to not prioritize animal welfare given placement underneath another organization

3 Execution and Accountability

- ✗ Lower-level leadership role (Sr. Program Manager) lacks authority to operate effectively
- ✗ Multiple layers of mgmt cloud accountability

Note: Typically, cities/counties will only privatize their animal shelter operations and operate field collection themselves.
See compendium for more detailed assumptions
Source: BCG analysis

Agenda

Context

Key Findings

Recommendations

Next steps

BCG recommends seven actions for Dallas

High level recommendations must be taken as a whole—cherry picking will not work

Priority	Recommendation
Mission	1 Publicly adopt a mission statement balancing public safety and animal welfare
Initiatives	2 Increase field intake (up to 8,700 loose dogs) and increase related enforcement and education to prevent dogs from roaming
	3 Increase the number of positive outcomes for Dallas dogs, euthanizing only the sickest animals
	4 Provide approximately 46,000 low-cost spay and neuter surgeries in southern Dallas each year for the next three years
Enablers	5 Create a collaborative community of partners
	6 Make animal services a priority and strengthen accountability within the city government (e.g., an independent department with additional funding)
	7 Ensure efficiency by measuring outcomes and increasing volunteers

28 specific initiatives provide guidance on how to achieve high-level recommendations

Recommendation	Specific Initiatives
1 Mission	1.1 Balanced mission statement 1.2 Scorecard with metrics
2 Loose dogs	2.1 Add more ASOs 2.2 ASOs collection shifts 2.3 Community Education 2.4 Enforcement & effectiveness 2.5 Open access to loose dog sightings
3 LRR	3.1 Digital marketing 3.2 Adoption footprint 3.3 High-volume transfer partner & account mgmt 3.4 Transport program 3.5 Surrender deflection 3.6 Behavior training 3.7 Hire vet and vet techs
4 S/N	4.1 High volume of S/Ns 4.2 Community collaboration 4.3 Early childhood education 4.4 Enforcement of S/N
5 Collaboration	5.1 Open access to DAS data 5.2 Shared workload 5.3 Inclusive, fact-based dialogue
6 Accountability	6.1 DAS as independent department 6.2 Increased funding 6.3 Project manager and data analyst to track progress against plan 6.4 Animal shelter commission changes 6.5 Exempt from civil service hiring
7 Efficiency	7.1 DAS employee alignment to plan & metrics 7.2 Increased volunteer resources

Our report provides details on each initiative

Recommendations can be prioritized and phased in over time based on estimated effort and impact

High /
Immediate
Impact

Preliminary/Suggested Prioritization of Initiatives

4

Strategic Priorities

- 4.1 High volume of S/Ns
- 3.3 Establish high-volume transfer partner & account mgmt
- 3.7 Hire vet and 2 vet techs
- 6.1 DAS as independent department

5

Long-term Opportunities

- 1.2 Scorecard - *implement*
- 2.3 Community Education
- 2.4 Enforcement & effectiveness
- 3.6 Animal behavior training
- 4.3 Early childhood education
- 6.4 Animal Commission changes
- 6.5 Civil service

3

Medium-term Initiatives

- 2.1 Add more ASOs
- 2.2 ASOs collection – *patrol shifts*
- 2.5 Open access loose dog reports
- 3.4 Transport – *Pilot & expand*
- 4.2 S/N Collation - *pledges*
- 4.4 Enforcement of S/N
- 5.2 Open access to DAS data
- 6.2 Increased DAS funding

2

Quick Wins

- 2.2 ASOs collection – *efficiencies*
- 3.1 Digital marketing
- 3.2 Increase adoption footprint
- 3.3 High-volume transfer
- 3.5 Surrender deflection – *referrals*

1

Immediate Actions

- 1.1 Mission statement
- 1.2 Scorecard - *align on success*
- 5.1 Improved dialogue
- 5.3 Shared workload – *pledges*
- 6.3 Appoint project manager
- 7.1 Alignment employees to plan
- 7.2 Inc . volunteers – *Job desc.*

Lowest
Effort

We believe our recommendations can dramatically reduce loose dogs, loose dog bites, and increase positive outcomes

Result

**Fewer
loose dog
bites**

**Less
euthanasia**

Rationale

Increasing field intake we will reduce the number of loose dogs

- Loose dogs accounted for 63% of all bites¹ in 2015

Increasing S/N levels we will address highest risk dogs

- Intact male dogs account for 70-75% of all bites²

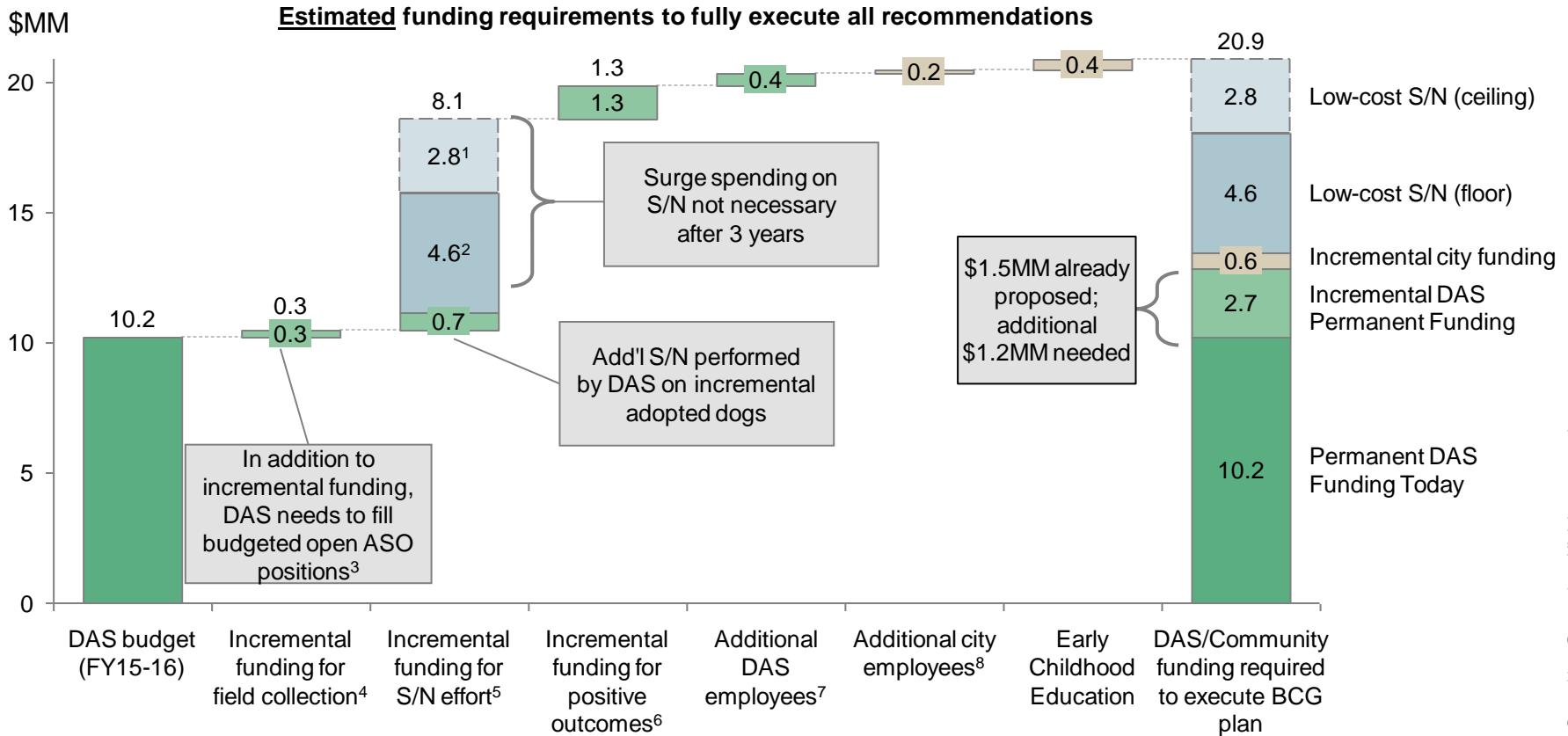
Series of opportunities exist to increase positive outcomes

- e.g., Marketing, Transfer partnerships, Transport, Owner aid, etc.

By increasing S/N levels, supply of new pets to place declines

S/N is the only sustainable solution, while increased intake and positive outcomes balance short-term needs

Solutions require incremental surge of funding from Dallas government, philanthropies, and rescue partners



While ideal, incremental funding requirement is not all or nothing—some improvement possible with fewer resources

1. Assumes low-cost S/N available without restriction or qualification. Also assumes vets are paid salaries.; 2. Assumes means-testing for low-cost S/N—e.g., presentation of Medicare/Medicaid card, proof of free lunch for school-aged children, etc. Also assumes vets are paid per surgery; 3. At the time of this report, there were 8 ASOs and 2 field supervisor vacancies on the DAS organizational chart; 4. Cost associated with Recommendation 2, collection of loose dogs; 5. Cost associated with Recommendation 4.1 regarding dog population control and Recommendation 3 when there are additional dogs adopted out by DAS; 6. Cost associated with Recommendation 3, initiatives aimed as increasing LRR, excluding costs for spay and neuter and vetting additional adopted dogs; 7. Costs from additional DAS employees found in recommendations 5.1, 6.1, 7.1, and 7.2; 8. Cost associated with Recommendation 4.3

Note: This includes the higher estimate of the ranges on recommendations 3.4 and 3.6

Source: BCG analysis

Detail: Funding supports FTEs, S/N surgeries, and other costs

Maximum incremental cost vs. FY '15-'16 city budget

	Recommendation	FTE costs (\$K)	S/N (\$K)	Other costs (\$K)	Total (\$K)	
Incremental DAS funding	2.1	Collection focused ASO team	\$94	-	-	\$94
	2.2	Increase current ASO intake	\$168	-	-	\$168
	3.1	Digital marketing	\$142	\$192	\$4	\$338
	3.2.1	Add'l adoption location	\$267	\$125	\$33	\$425
	3.2.2	Extended adoption hours	\$31	\$50	-	\$81
	3.3.2	Relationship management of transfer partners	\$51	-	-	\$51
	3.4	Transport program	\$51	\$192	\$42	\$285 ¹
	3.5	Owner assistance program	\$26	-	-	\$26
	3.6	Behavior training	-	\$120	\$650	\$770 ²
	5.1	Open data access	\$30	-	-	\$30
	6.1	Independent department	\$310	-	-	\$310
	7.1	Org. alignment to DAS mission	\$58	-	-	\$58
7.2	Volunteer program	\$51	-	-	\$51	
	Incremental DAS spend	~\$1,300	~\$700	~\$700	~\$2,700³	
Incremental city funding	4.3	Childhood education	\$396	-	-	\$396
	6.3	Project management	\$158	-	-	\$158
		Incremental city spend	~\$600	-	-	~\$600
Incremental comm'y funding	4.1	Spay and neuter surge	\$175	\$7,300	\$50	\$7,500
		Incremental community spend	~\$175	~\$7,300	~\$50	~\$7,500
Total funding	Combined total spend	~\$2,000	~\$7,900	~\$800	~\$10,700	

1. Took the high end of the range. Low-end of cost range is \$156k.; 2. Took the high end of cost range. Low end was \$392k

Note: An additional \$300,00 one time investment in DAS is also required for recommendations 2.1, 3.1

Source: BCG analysis

Agenda

Context

Key Findings

Recommendations

Next steps

Dallas' issues are solvable, but require community action

City of Dallas

- Approve funding increases to support additional ASOs, S/N surge, other initiatives
- Make DAS a priority and accountable by creating a standalone department
- Improve efficacy of enforcement – warrants/arrests, civil citations
- Exempt DAS from civil service hiring to accelerate filling positions

Philanthropies

- Provide funding based on rigorously quantified and tracked plans (esp. S/N)
- Demand collaboration across executing organizations

DAS

- Prioritize and execute initiatives for near-term impact
- Coordinate and collaborate with other organizations on key programs

Transfers and Rescues

- Devote greater share of your intake to DAS in coming years until S/N effective
- Coordinate in-community efforts – locations, times, data, results, etc.

Commission

- Increase engagement and support, by becoming an advisory board with subcommittees and expertise that helps DAS solve problems

Residents of Dallas

- Volunteer with animal organizations, especially specialized skills (photography)
- Encourage responsible ownership among your neighbors & report violations
- Act as neighborhood advocate for S/N encouraging others to be in compliance

Suggested next steps: Critical to divide and conquer, monitor progress, and refine

Assign ownership

Recommend the community engage in a **full-day summit** to align on:

- Specific individual owners for each initiative
- Pledges from individuals or organizations that pledge to participate in a given initiative
- Prioritization and timeline to execute initiatives
- Metrics that will be used to track and measure success for each initiative

Start small

Recommend an entrepreneurial "**start small**" mentality:

- Establish the minimal viable version of a recommendation
 - E.g, 2 photographers developing a scalable process vs. 20 photographers immediately
- Once successfully implemented in its small-scale version, recommendations are easier to implement to fullest intent

Track Progress

Recommend **regular and frequent progress reporting** for each initiative

Reprioritize resources based on realized value and potential

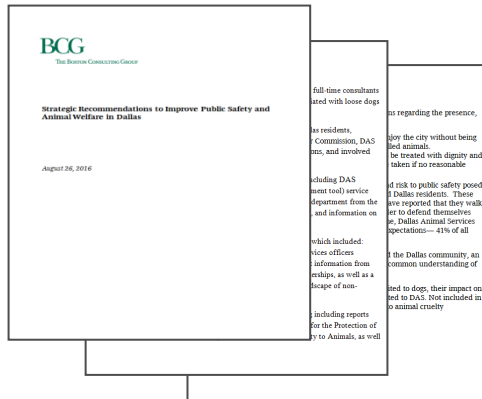
Highlight "obstacles" that prevent success so others can fill gaps in funding, capabilities, equipment, and access – allowing initiatives to overcome obstacles

BCG will provide three deliverables for community use

White-paper

Document contains written explanation of:

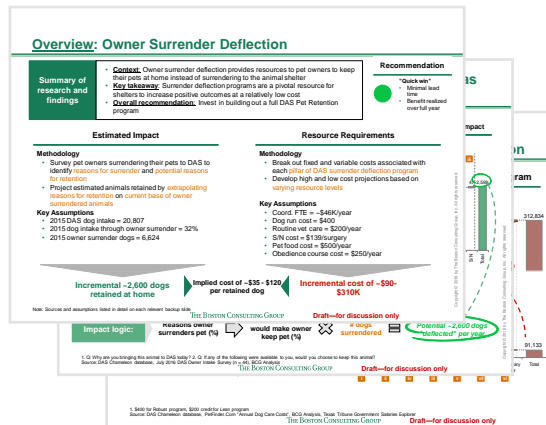
- Project background
- Relevant context and facts
- BCG recommendations
- Supporting rationale



Initiative detail

Contains details on each recommended initiative:

- Background context
- Key assumptions
- Sizing of potential (intake, outcomes, etc)
- Cost to execute



Working materials

Additional analysis completed during project, including analysis not reflected in recommendations

Not all materials validated by a second party



Q & A

Appendix

Rec. #1: Publicly adopt a mission statement balancing public safety and animal welfare

Initiatives

1.1 DAS should adopt a **MISSION STATEMENT BALANCING PUBLIC SAFETY AND ANIMAL WELFARE**

1.2 DAS should adopt a **MISSION-CENTRIC SCORECARD** with specific targets and regular progress updates

We recommend DAS revise its mission statement and track its success

Today's mission statement¹

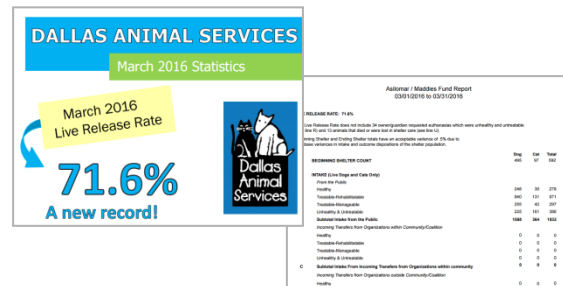
"Dallas Animal Services and Adoption Center is dedicated to the **humane treatment of animals** in Dallas and educating others about **responsible pet ownership**. We reinforce these ideals every day by providing daily care for hundreds of animals in our shelter, assisting citizens who come to see us as well as out in the community. We respond to calls regarding **animal welfare** and **concerns**, conduct free Responsible Pet Ownership classes, hold offsite animal adoption events, and speak at and provide educational information at public safety fairs, environmental festivals, and neighborhood organizations."

BCG recommended mission statement

"Our mission is to ensure **public safety**, promote **animal welfare**, and contribute to a **stable population** of animals within the City of Dallas.

Successful execution of our mission depends on the efficient and data-driven use of resources as well as collaboration with partners in our community."

Today's reporting is LRR centric (Infographic & Asilomar reports)



BCG recommended scorecard² across safety, LRR, S/N, engagement

Community scorecard can track progress against the strategy

Objective	Goal (Metric)	Current Level	2017 Target	2019 Target
Reduce number of Loose Dogs	Fewer loose-running dogs (to report loose dog cases in 2017)	16,700	8,500	1,500
	Fewer dog bites (file reports, Lower dog bite reports)	1,076	1,500	800
	Fewer emergency service requests to 311 and 911 (animal related)	43,838	40,000	30,000
Increase LRR	Improved resident satisfaction related to Animal Control	30%	45%	45%
	Improved LRR (Live Release Rate)	58%	65%	65%
	Higher S/N adoption in southern zip codes	10%	4%	0.5%
Control Population through S/N	High volume of S/N surgeries delivered	5,000	8,000	45,000
	Lower long term absolute intake from southern Dallas	13,466	22,000	10,000
	Increase the average age of dogs at intake	1yr 8 mo	2 yrs	2 yrs 6 mo
Increase Collaboration	Increased partner satisfaction (to be surveyed)	50%	70%	70%
	Increased number of volunteer hours	1.2 FTE ¹	10 FTE	25 FTE
	Decrease in average length of stay	7.6 days	7	6
Improve Efficiency	Increased efficiency of animal service officers (log intake per year)	289	350	450

1. Release 2016. 2. Tracking dashboard. 3. 2019 target. THE BOSTON CONSULTING GROUP Draft-for discussion only

1. Mission statement identified on "About" section of Dallas Animal Services website on August 15, 2016. Mission statement used in grant applications and internally at DAS is: To strengthen our community through outreach and enforcement efforts that preserves the human animal bond throughout the City of Dallas
2. Scorecard to serve as guidance on kinds of metrics which should be tracked and reported on. Specific scorecard should be finalized by DAS.

Rec. #2: Increase field intake and increase related enforcement and education to prevent dogs from roaming

Initiatives

2.1 DAS should **FOCUS 10 ASOs** on field collection and patrol

2.2 - DAS should increase ASO **FIELD INTAKE**

2.3 - The Dallas community should **EDUCATE RESIDENTS** about the dangers of loose dogs and dog bites

2.4 – The City of Dallas should make civil and criminal citations **MORE EFFECTIVE**

2.5 DAS should **SHARE** loose dog service requests

More ASOs focused on collection along side enforcement and education will improve public safety

From...

...To

Limited ASOs focus solely on patrol and intake

10 ASOs focused exclusively on proactive patrol & collection resulting in +8k intake¹

253 dogs collected per ASO annually

356 dogs collected / ASO through operational improvements² resulting in +3.8k field intake

Small team of ASOs (CARE) and volunteers focus on proactive targeted comm'ty education

Community orgs. utilize DAS data to organize, train, and deploy outreach

~72 citations / ASO / year
Inefficient process
Only 50% response rate

Greater impact on compliance through patrol-focused ASOs and proposed efficiencies

Initiatives could result in incremental field collection of up to ~12k dogs, but to be limited to address public safety

¹ Intake includes potential for field RTO (return-to-owner) which can also result in citations or other actions to increase compliance;

² 356 is the average number of dogs collected per ASO per year in comparable benchmark cities

Source: DAS employee interviews; DAS Chameleon database; DAS citations June 2014 - May 2016

Rec. #3: Increase the number of positive outcomes for dallas dogs, euthanizing only the sickest animals

Initiatives

3.1 Enhance DIGITAL MARKETING

3.2 Increase ADOPTION FOOTPRINT

- Add EAC location
- Extend hours

3.3 HIGH-VOLUME TRANSFER PARTNER & account mgmt

- One partner with shelter for high-volume, rapid transfers
- Better tools, self-service for small rescues

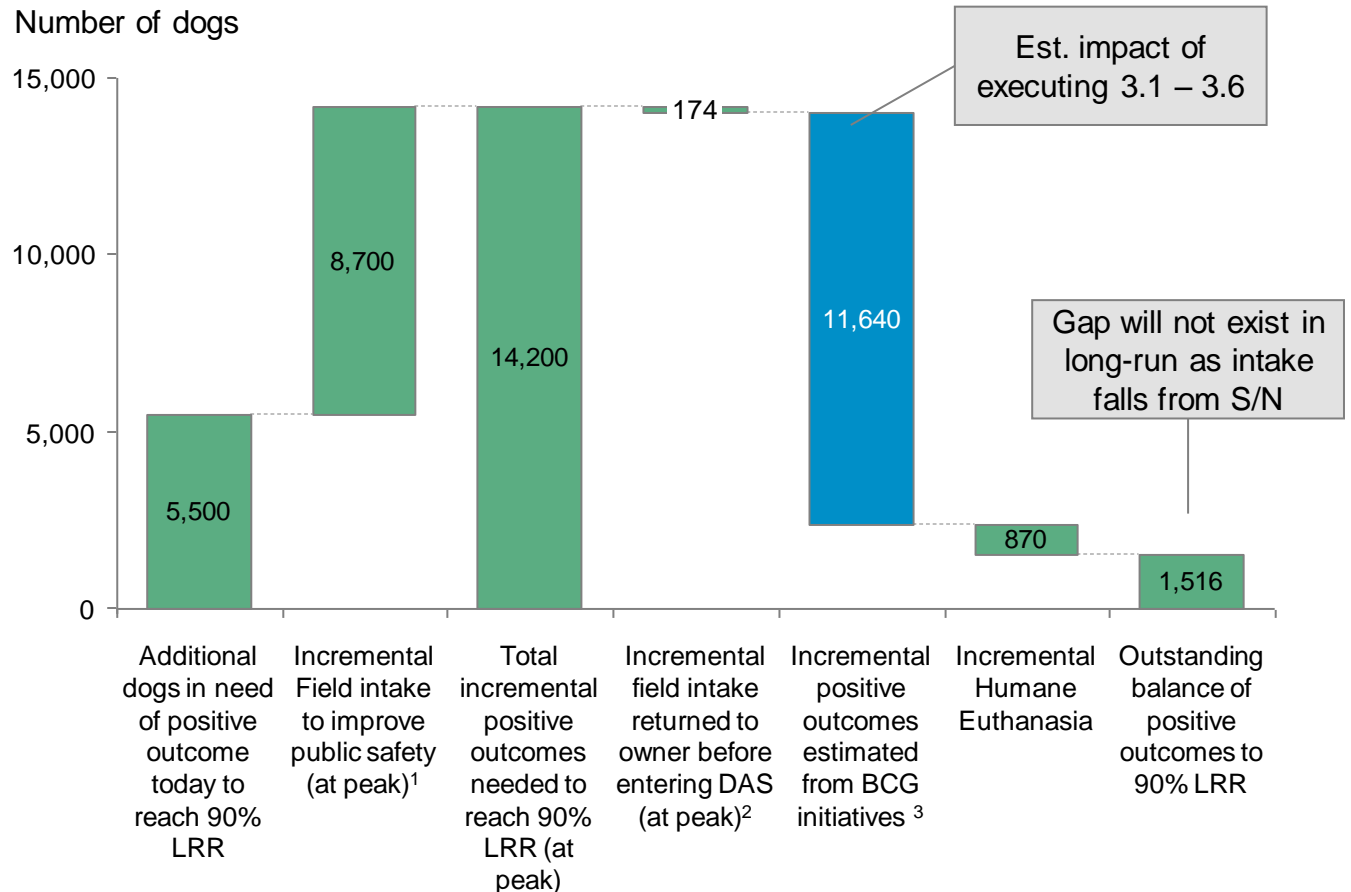
3.4 TRANSPORT PROGRAM

3.5 SURRENDER DEFLECTION

3.6 BEHAVIOR TRAINING

3.7 HIRE 1 vet and 2 vet techs

Array of initiatives will provide incremental positive outcomes for dogs



Est. impact of executing 3.1 – 3.6

Gap will not exist in long-run as intake falls from S/N

1. Hiring additional ASOs expected to take several months. Increasing intake per ASO will be ongoing process where first improvements is not expected for > 6 months. Field intake likely to decline in 2-3 years once loose dog population under better control, decreasing need for additional positive outcomes.; 2. Assume that 2% of all incremental collected dogs are returned to owner in the field as they were in 2015; 3. Timeline for implementing recommendations to increase number of positive outcomes expected to be faster than timeline for increasing field intake.; Source: BCG Analysis

Rec. #4: Provide 46,000 free spay and neuter surgeries in southern Dallas each year for next three years

Initiatives

4.1 **PROVIDE ~46K LOW-COST SPAY/NEUTER SURGERIES** in southern Dallas for the next three years

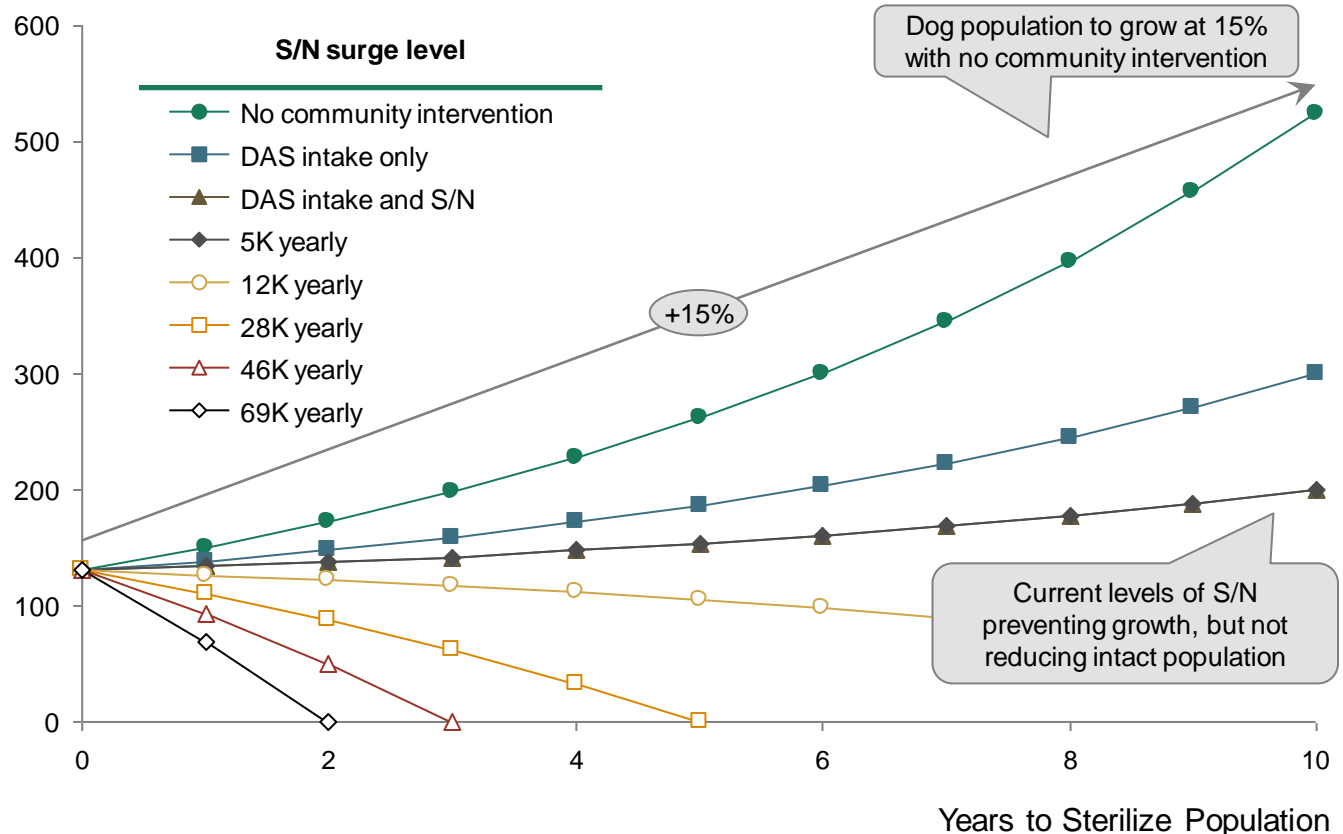
4.2 Animal welfare organizations in Dallas should **COORDINATE S/N EFFORTS ACROSS**

4.3. City should establish **ELEMENTARY SCHOOL EDUCATION PROGRAMS** related to pet ownership

4.4 DAS should **ENFORCE S/N ORDINANCE** in coordination with outreach

Multiple organizations will need to collaborate to deliver ~46k free S/N surgeries each year over 3 years to reduce intact population

Estimated Intact Population in Southern Dallas¹ (K)



1: Assumes starting intact population based on census population estimate and AVMA pet ownership rates, 6% roaming, 50/50 sex ratio, 1.16 litters a year, 7 puppies a litter, 75% birth survival rate, 10 year life expectancy, 2.8% of owned dogs breeding; Note: Assumes starting intact population of 96,603 dogs in Southern Dallas, 6% roaming, 50/50 sex ratio, 1.16 litters a year, 7 puppies a litter, 75% birth survival rate, 10 year life expectancy, 2.8% of owned dogs breeding; Source: AVMA; ASPCA; American Kennel Club; Pets for Life Canine Perinatal Mortality Study 2012; Birth and Death Rate Estimates of Cats and Dogs 2004; PetMD; Development of a Model for Estimating the Size and Dynamics of Pet Dog Population 1994; BCG Analysis

Rec. #5: Create a collaborative community of partners

Initiatives

5.1 DAS should provide the community **OPEN ACCESS TO OPERATING DATA** and automated reporting

5.2 The animal welfare **COMMUNITY OF DALLAS SHOULD SHARE THE WORKLOAD** of the strategic recommendations

5.3 Community should engage in an **SOLUTIONS-ORIENTED DIALOGUE**

Collaboration will be critical to achieving scope of recommendations

From...

DAS "Watchdog" Facebook groups & frequent ORRs

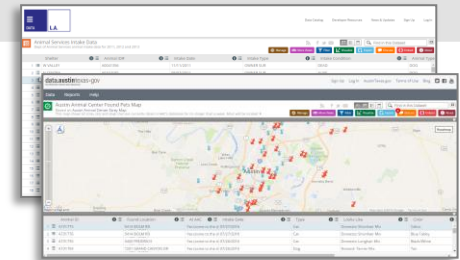


Many efforts, but lacking coordination

Communication can be perceived as defensive

...To

Open data for community to access with FTE support



Aligned action against common plan with pledge of support from participants

Conversation rooted in fact and solutions oriented

1. Public comment made by DAS social media coordinator

2. Hypothetical response to problem incorporating statistics from the 2016 Dallas Community Survey conducted by the ETC institute on behalf of the city.

Rec. #6: Make animal services a priority and strengthen accountability within the city government

Initiatives

6.1 DAS should become an **INDEPENDENT MUNICIPAL DEPARTMENT**

6.2 The City of Dallas should **INCREASE FUNDING FOR DAS** to support recommendations

6.3 The City of Dallas or DAS should **HIRE A PROJECT MANAGER AND DATA ANALYST** to oversee the implementation of recommendations

6.4 The Dallas Animal Advisory **COMMISSION SHOULD ESTABLISH NEW SUBCOMMITTEES**

6.5 DAS should be **EXEMPT** from civil service hiring

Governance changes will empower DAS to execute its mission

From...

Operating within Code, muddying accountability and adding layers-of-communication

A budget ~10% lower than benchmark peers

No point person to track progress across the community

An advisory board with specific structure or mandate

Delays in hiring from Civil Service

...To

Stand-alone department making DAS a priority with greater accountability

A competitive budget with increases earmarked for key Intake & S/N initiatives

A single voice to give visibility to progress against the plan

An advisory board with subcommittees and expertise that helps DAS solve problems

Expedited hiring to fill key roles

Rec. #7: Ensure efficiency by measuring outcomes and increasing volunteers

Initiatives

7.1 DAS should **ALIGN ORG STRUCTURE** and employee performance against its mission

7.2 DAS should **INCREASE SCALE OF VOLUNTEER PROGRAM** with a greater variety of roles

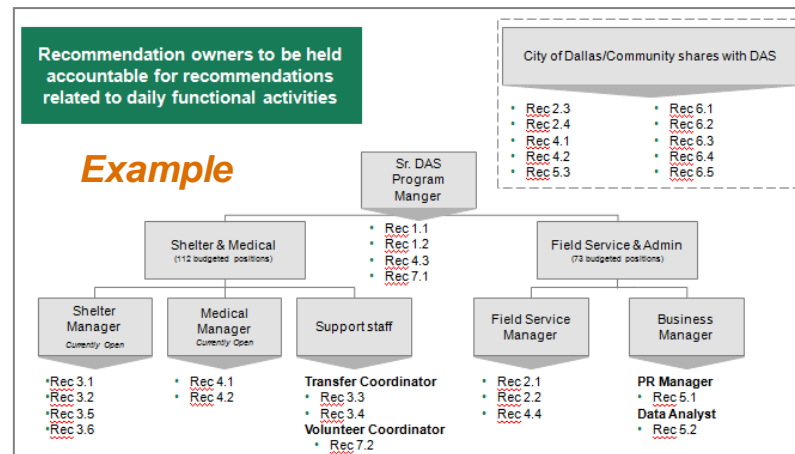
Managing to metrics focused deployment of limited resources

From...

Large set of recommendations

...To

Individual ownership of each initiative



Today ~1.2 FTEs of volunteer time at DAS (since recent start)

Target of 10-20 FTEs of volunteer time across varied roles

Deep-dive on strategic recommendations (I)

		High Priority				
Priority area	Recommendation and key assumptions	Impact	Cost	Cost/ dog	Emp.	DAS partner
1 Mission	1.1 DAS should adopt a mission statement balancing public safety and animal welfare	<i>nq</i>	<i>nq</i>	<i>n/a</i>	0	-
	1.2 DAS should adopt a mission-centric scorecard with specific targets and regular progress updates	<i>nq</i>	<i>nq</i>	<i>n/a</i>	0 ¹	-
2 Loose dogs ²	2.1 DAS should focus 10 ASOs and 2 field supervisors on field collection and patrol <ul style="list-style-type: none"> 4 trucks full equipped @\$60k each = \$240k DAS fills current open positions (8 ASOs and 2 supervisors) at no cost 2 additional ASO officers at \$47k salary = ~\$94k per year 	6,000 <i>intake/yr</i>	\$240k+ \$94k/yr	\$16	2	-
	2.2 DAS should increase ASO field intake <ul style="list-style-type: none"> Cost of 4 additional 311 operators or dispatchers @\$42k = \$168k per year 	2,400 <i>intake/yr</i>	\$168k/yr	\$70	4	-
	2.3 The Dallas community should educate residents on both the dangers of allowing dogs to run loose and the ways to avoid dog bites	<i>nq</i>	<i>nq</i>	<i>n/a</i>	0	<i>Comm'ty</i>
	2.4 The City of Dallas should work to make animal-related citations more effective	<i>nq</i>	<i>nq</i>	<i>n/a</i>	0	<i>City of Dallas</i>
	2.5 DAS should share loose dog service requests with organizations that actively capture loose dogs	<i>nq</i>	<i>nq</i>	<i>n/a</i>	0	<i>Comm'ty</i>
3 LRR	DAS should enhance its digital marketing ³ for both adoption and transfers: <ul style="list-style-type: none"> DAS IT system upgrades = \$60k Cameras and laptops for improving profiles = \$4k Incremental spay and neuter and vaccine supplies and labor for ~2,000 dogs @ \$96 = \$192k per year Additional 2.8 employees to photograph dogs, write descriptions, upload information to websites etc. @ \$36k salary= \$101k per year 2 additional staff to aid potential adopters navigate the kennels @ \$20,800 = \$42k per year 	3,200 <i>adoptions/ transfers/yr</i>	\$60k+ \$338k/yr	\$106	4.8	-

1. The data analyst budgeted for recommendation 7.1 will maintain the reports regarding DAS missions and targets

2. Initiatives could result in incremental field collection of up to ~8.4k dogs, but expect that intake will be limited to address public safety issue posed by loose dogs

3. Digital marketing includes both content on and penetration of DAS website, Petfinder, Pet Harbor, and Facebook

Note: *nq* = not quantified; Salaries based on similar positions listed on Texas Tribune grossed up 20% to include benefits

Source: BCG analysis

Deep-dive on strategic recommendations (II)

Priority area	Recommendation and key assumptions	Impact	Cost	Cost/ dog	High Priority	
					Emp.	DAS partner
3 LRR (cont'd)	3.2 DAS should increase adoption footprint by:	1,820 adoptions/yr	\$506k/yr	n/a	3.2	-
	3.2.1 – Expanding its retail presence via an additional adoption location <ul style="list-style-type: none"> Same cost as existing EAC location (including 2 employees) = ~\$300k per year Incremental spay and neuter and vaccine supplies for 1,300 dogs @ \$96= ~\$125k per year 	1,300 adoptions/yr	\$425k/yr	\$327	2	Retail partner
	3.2.2 – Expanding its retail presence via extended adoption hours <ul style="list-style-type: none"> Incremental spay and neuter costs for 520 dog adoption @ \$96 = \$50k per year Additional 12 adoption hours a week with 2 staff to sit at the adoption desk @ ~\$15/hr = \$19k per year Additional 12 hours a week for 2 staff to aid adopters as they walk around kennels @~\$10/hr = ~\$12k per year 	520 adoptions/yr	\$81k/yr	\$156	1.2	-
	3.3 DAS should increase volume through its transfer program by:	1,570 transfers/yr	\$51k/yr	n/a	1	-
	3.3.1 – Establishing a "transfer-on-intake" program w/ a single high-volume partner	1,000 transfers/yr	0	\$0	0	-
	3.3.2 – Segmenting relationship mgmt of transfer partners by size and support <ul style="list-style-type: none"> 1 Transfer Coordinator @ \$51k per year 	570 transfers/yr	\$51k/yr	\$89	1	-
	3.4 DAS should establish a pet transport program to facilitate out-of-state adoptions <ul style="list-style-type: none"> 1 program supervisor @ \$51K/yr = \$51k per year Pet food provided for 0.9–2k dogs @ \$21/two week hold period = \$19k-42k/yr Incremental spay and neuter surgeries for 0.9–2k dogs @ \$96 = \$86k-192k/yr DAS other transport costs paid by adopter 	900-2,000 adoptions/yr	\$156k-\$285k/yr	\$143-\$174	1	501(c)(3) partner
	3.5 DAS should deflect owner surrenders through owner assistance programs <ul style="list-style-type: none"> DAS labor to coordinate and implement owner assistance program <ul style="list-style-type: none"> 0.5 employee @ \$51K/year = \$26k per year Costs for owner assistance that should be shared with 501(c)(3) partners <ul style="list-style-type: none"> 340 dog runs, 670 routine vet care tabs, 47 S/N surgeries, 17 dog owners receive food assistance, 17 behavior courses 	2,600 deflections/yr	\$26k/yr ¹	\$10	0.5	501(c)(3) partners

1. The total cost of all deflections to support organizations represents ~1% of the total budget of animal welfare organizations that responded to a recent survey. As such, we assume that sufficient capacity exists within the community to address all 2,600 deflections without additional funding from DAS.

Note: nq = not quantified, Salaries based on similar positions listed on Texas Tribune grossed up 20% to include benefits

Source: BCG analysis

Deep-dive on strategic recommendations (III)

							High Priority
Priority area	Recommendation and key assumptions	Impact	Cost	Cost/ dog	Emp.	DAS partner	
3 LRR (cont'd)	3.6 DAS should provide enhanced behavior training to increase adoptability of dogs <ul style="list-style-type: none"> 700-1,300 incremental spay and neuter surgeries @ \$96= \$68k-\$122k per year 15,430 behavior courses @ \$21-42 = \$324-648k per year¹ 	700-1300 adoptions/yr	\$392k- \$770k/yr	\$556 - \$605	0 ²	-	
	3.7 DAS should hire 1 veterinarian and 2 vet techs to perform spay and neuter surgeries and vaccinations to support the increase in dog adoptions	nq ³	nq ³	n/a ³	3	-	
4 Pop. control	4.1 The Dallas community should provide ~46,000 free spay/neuter surgeries in southern Dallas for each of the next 3 years <ul style="list-style-type: none"> \$160 per surgery at Spay Days add'l 5,880 surgeries = ~\$950k \$168 per surgery in mobile vans for add'l 37,500 surgeries = ~\$6.3MM 3 hotline associates @ \$25k = \$75k Overhead @ \$52k 1 project manager @ \$100k 	46k surgeries /yr	Up to \$7.5MM/yr	\$163	4 ⁵	501(c)(3) partners + Comm'ty	
	4.2 Animal welfare organizations in Dallas should coordinate S/N efforts	nq	0	n/a	0	Comm'ty	
	4.3 The City of Dallas should establish elementary school education programs related to pet ownership <ul style="list-style-type: none"> 6 teacher resource costs ~\$66K/yr = \$396k/yr 	6k reached/yr	\$396k/yr	n/a	12	City of Dallas	
	4.4 DAS should enforce S/N ordinances in coordination with outreach	nq	nq	n/a	0	-	
5 Comm'ty Collab.	5.1 DAS should work with CIS and other city departments to provide open access to operating data and automated reporting <ul style="list-style-type: none"> \$30k increase in salary to elevate current budgeted Coordinator II: Data Analyst to a Manager II: Business to ensure proper skillset for position 	nq	\$30k/yr ⁶	n/a	0	City of Dallas	
	5.2 The animal welfare community of Dallas should share the workload of the strategic recommendations	nq	nq	n/a	0	Comm'ty	
	5.3 The animal welfare community of Dallas should engage in an inclusive, fact-based dialogue	nq	nq	n/a	0	Comm'ty	

1. Behavior classes can continue even after the dog has been adopted; 2. There is no additional FTE in this because the behavior courses are contracted out to existing professionals and organizations; 3. Cost and impact allocated to across LRR recommendations according to volume of dog adoptions; 4. 46,000 S/N surgeries to be delivered each year for three years before ramping down; 5. This project manager and data analyst should be dedicated to ensuring recommendations are effectively implemented; 6. Current data analyst is budgeted for ~\$42 while a Manager II-Business has a salary of ~67k. The recommended salary differential would be a ~25k increase to budget

Note: nq = not quantified, Salaries based on similar positions listed on Texas Tribune grossed up 20% to include benefits

Source: BCG analysis

Deep-dive on strategic recommendations (IV)

		High Priority				
Priority area	Recommendation and key assumptions	Impact	Cost	Cost/dog	Emp.	DAS partner
6 Gov.	6.1 DAS should move out from under the Department of Code Compliance and become an independent municipal department <ul style="list-style-type: none"> Assuming DAS must make a 1:1 replacement of support services¹ currently provided by Department of Code, it would cost \$370k Assuming DAS needs support services¹ in line with BCG public sector and animal service organizations benchmarks, it would cost \$250k 	<i>nq</i>	\$310k ² /yr	<i>n/a</i>	5	City of Dallas
	6.2 The City of Dallas should increase funding for Dallas Animal Services to support recommendations	<i>nq</i>	<i>n/a</i> ³	<i>n/a</i>	0	City of Dallas
	6.3 The City of Dallas or DAS should hire a project manager and data analyst to oversee the implementation of recommendations <ul style="list-style-type: none"> 1 project manager @ \$100k per year 1 analyst @ \$58k per year 	<i>nq</i>	\$158k/yr	<i>n/a</i>	2 ⁴	City of Dallas
	6.4 The Animal Advisory Commission should establish new subcommittees to support DAS	<i>nq</i>	<i>nq</i>	<i>n/a</i>	0	City of Dallas
	6.5 DAS should be exempt from the civil service hiring process	<i>nq</i>	<i>nq</i>	<i>n/a</i>	0	-
7 Operating efficiency	7.1 DAS should align its organizational structure and employee performance with its mission <ul style="list-style-type: none"> 1 data analyst @ \$58k per year for performance scorecard and reporting 	<i>nq</i>	\$58k/yr	<i>n/a</i>	1	-
	7.2 DAS should increase the scale of its volunteer program with a greater variety of roles <ul style="list-style-type: none"> 1 volunteer coordinator @51k per year 	<i>nq</i>	\$51k/yr	<i>n/a</i>	1	-

1. Support services = HR, Communications, Finance, and IT

2. Average of two cost sizing methodologies

3. No additional costs to those listed.

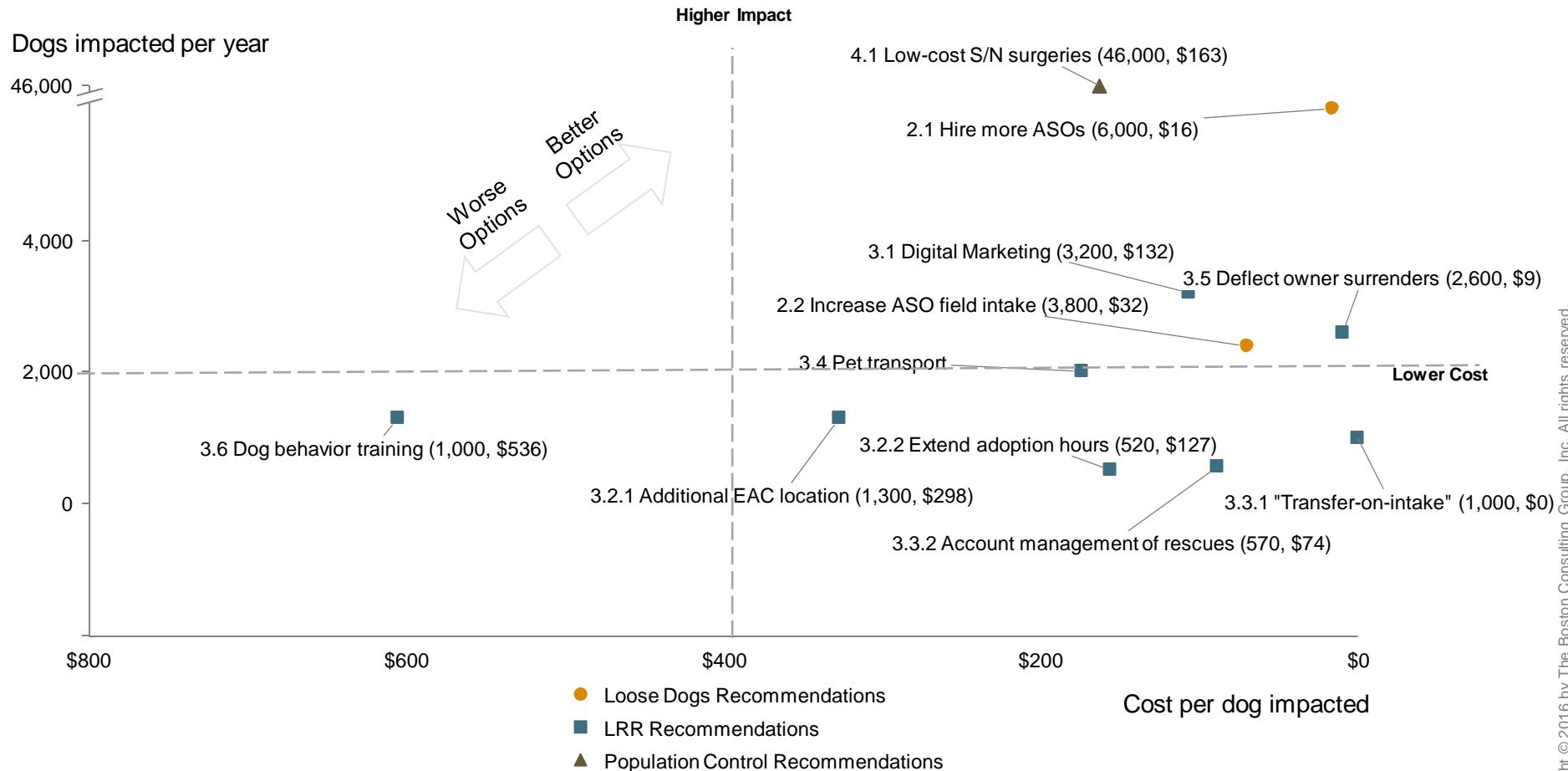
4. This project manager and analyst are unique to those already listed. These two positions will be focused on implementing and tracking all of the recommendations across the city of Dallas/

Note: *nq* = not quantified, Salaries based on similar positions listed on Texas Tribune grossed up 20% to include benefits

Source: BCG Analysis

Recommendations can be prioritized based on cost efficiency

Loose Dog and LRR Recommendations: Dogs Impacted vs Cost per Dog Impacted

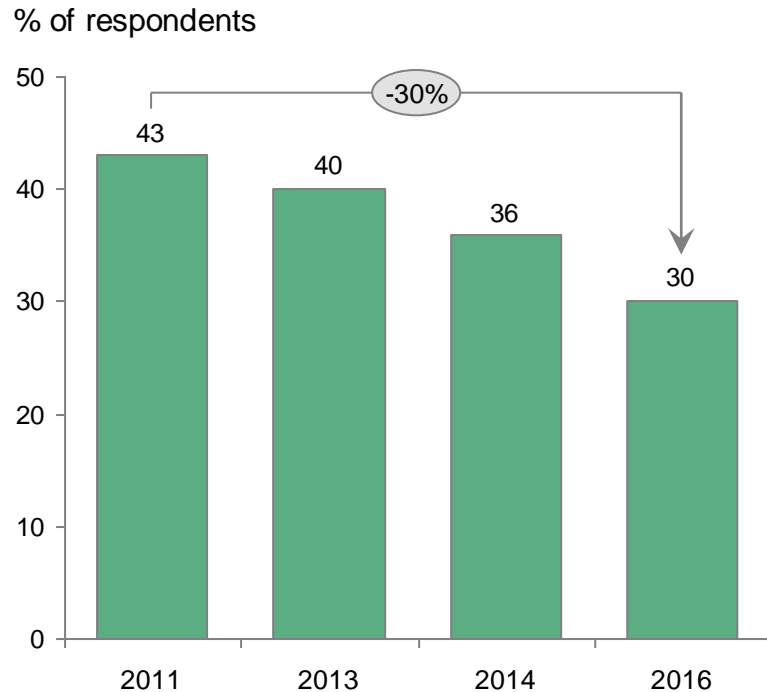


Note: Includes high range for recommendations 3.4 and 3.6
 Source: Various and BCG Analysis. See full report and supporting materials for methodology, calculations, and exact sources.

Animal Control's perceived performance based on community input has decreased year over year

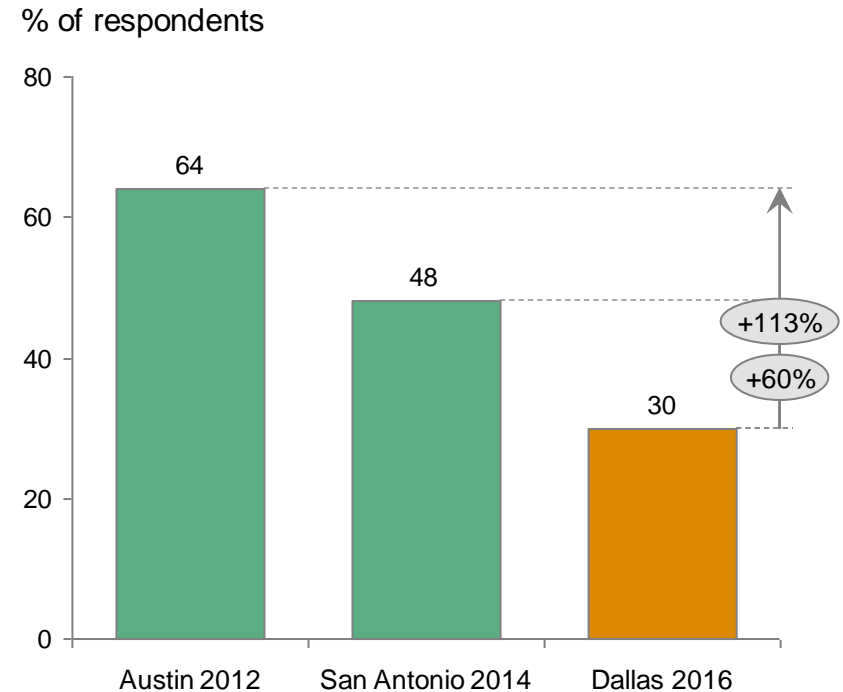
~30% decrease in city's Animal Control performance in the last 5 years

Respondents who rated Animal Control as "excellent" or "good" (excluding don't knows)



Dallas falls significantly behind when comparing to Texas peers

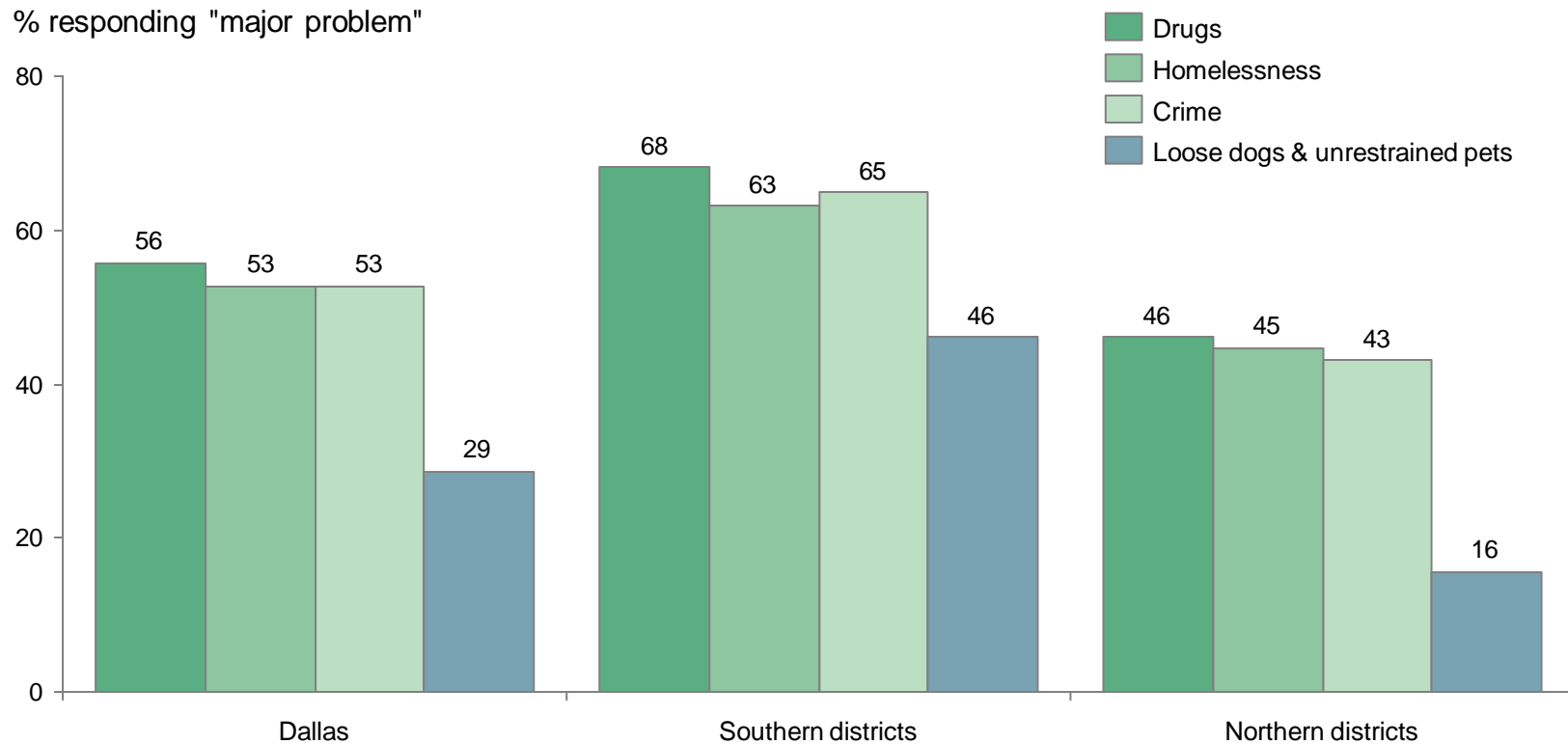
Respondents who rated item as a 4 or 5 on 5 point scale (excluding don't knows)



Note: Not all cities perform community services or conduct them yearly. City of Austin Community Survey Findings (2012). City of San Antonio Community Survey (2014)
Source: 2014 City of Dallas Community Survey (n=1,523), 2016 City of Dallas Community Survey (n=11,512), BCG analysis

Loose dogs not identified as the leading problem in Dallas, but 46% of southern Dallas considers it a "major problem"

% of community considering a problem a "major problem" from 2016 Community Survey conducted by City of Dallas



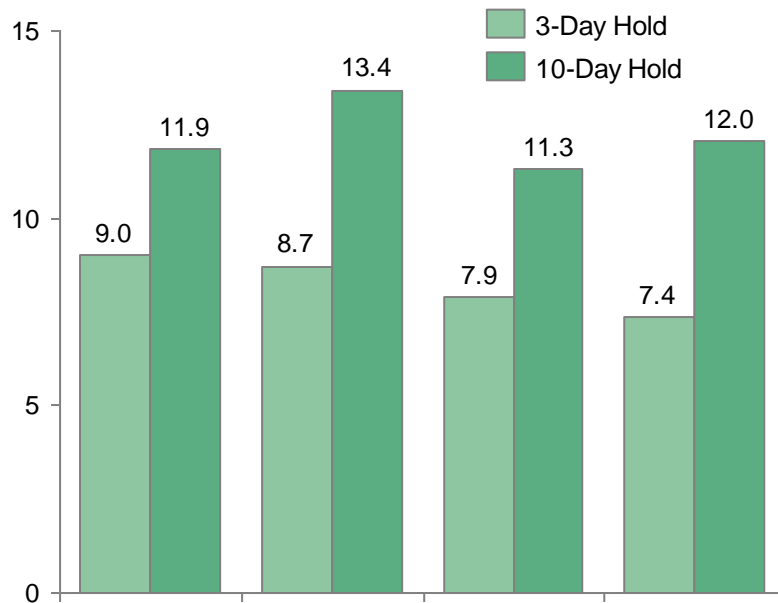
Note: I-30 used to separate North from southern Dallas. North Dallas includes districts 2,6,9,10,11,12,13,14. Southern Dallas includes districts 1,3,4,5,7,8

Source: ETC Institute Dallas Community Survey 2016, BCG analysis

Length of stay in DAS differs by intake type and eventual outcome

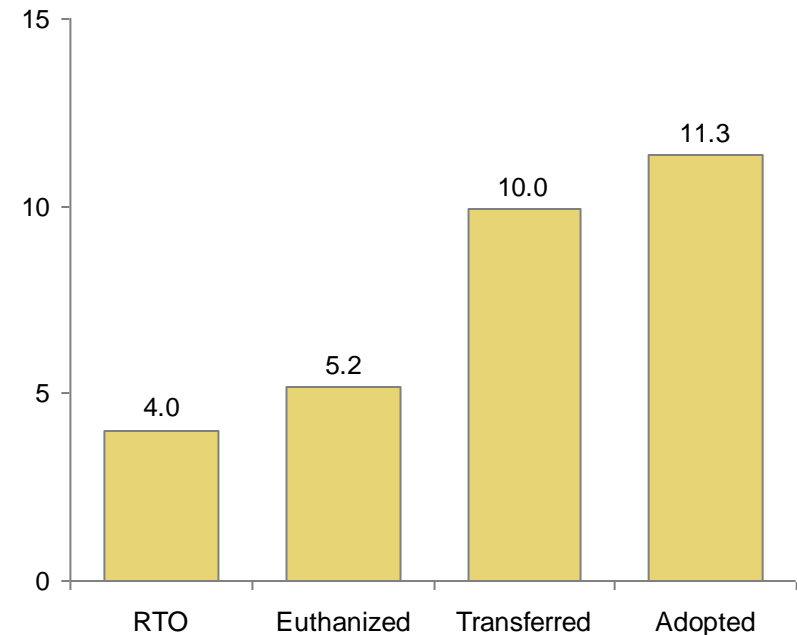
Dogs received OTC stay fewer days than dogs received from field

Average Days in DAS



Dogs eventually adopted stay longest in DAS

Average Days in DAS



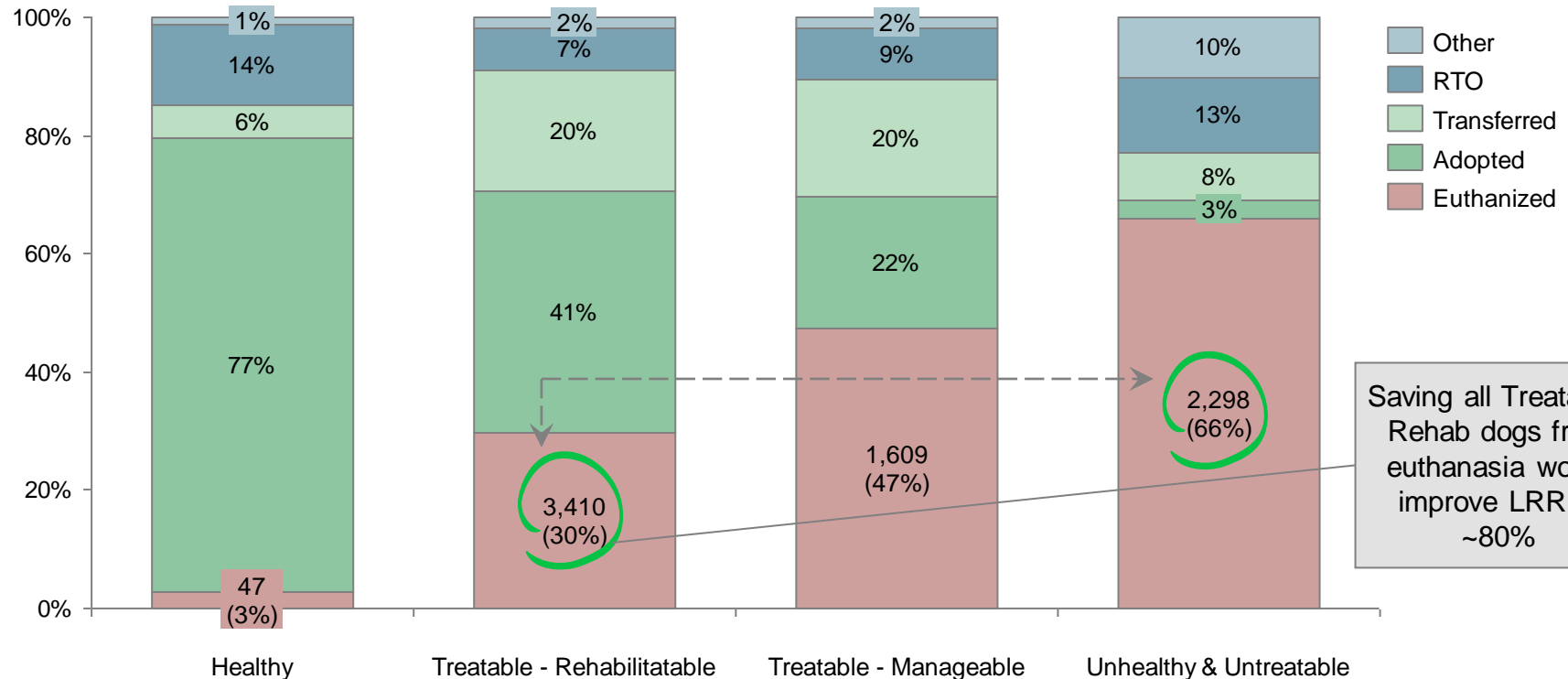
Note: Data for calendar year 2015. 'Field - Same Day RTO' includes dogs with primary intake type of 'Field' and any intake subtype and reunited with owner on the same day; 'Field - Pickup' includes dogs with primary intake type of 'Field' and intake subtypes of 'owner surrender', 'confined', or 'confiscated'; 'Field - Capture' includes dogs with primary intake type of 'Field' and intake subtype of 'stray'; 'OTC - Stray Turn-In' includes dogs with primary intake type of 'OTC' and intake subtype of 'stray'; 'OTC - Owner Surrender' includes dogs with primary intake type of 'OTC' and intake subtypes of 'owner surrender' or 'confiscated'

Source: DAS Chameleon database, BCG analysis

Relationship observed dog's health and outcome

Nevertheless, more 'Treatable-Rehab' dogs are euthanized than 'Untreatable' given scale

% of TTM as of May 2016 Dog Intake (health category based on *intake* categorization)



Saving all Treatable-Rehab dogs from euthanasia would improve LRR to ~80%

Totals	1,784	11,497	3,393	3,485
---------------	-------	--------	-------	-------

1. Other includes dead on arrival, died in shelter, missing, or no outcome categorization specified in data; Note: TTM = trailing twelve months; Asilomar health assessment taken upon intake to the shelter; Source: DAS Chameleon database, BCG analysis

DAS mission statement primarily focused on animal welfare

Animal Welfare

Austin	To provide public service and a safety net for lost and homeless animals in the community by providing necessary food, water, shelter and standard municipal veterinary care for animals in need
Dallas (public)	Dallas Animal Services and Adoption Center is dedicated to the humane treatment of animals in Dallas and educating others about responsible pet ownership . We reinforce these ideals every day by providing daily care for hundreds of animals in our shelter, assisting citizens who come to see us as well as out in the community. We respond to calls regarding animal welfare and concerns, conduct free Responsible Pet Ownership classes, hold offsite animal adoption events, and speak at and provide educational information at public safety fairs, environmental festivals, and neighborhood organizations
Dallas (private)	To strengthen our community through outreach and enforcement efforts that preserve the human animal bond through the City of Dallas
Miami	To save the lives of abandoned animals in our care, reunite lost pets with their owners, protect the people and pets in our community from health related issues and ensure the public's safety
Jacksonville	Jacksonville's Animal Care and Protective Services (ACPS) provides animal control to the citizens in Jacksonville by fair enforcement and community education. ACPS also enhances the quality of life in our neighborhoods by offering quality pets for adoption at a reasonable cost . ACPS is dedicated to providing a high level of service to the citizens in Jacksonville and to saving the lives of all adoptable animals in our community
Houston	Our mission is to promote and protect public health and animal care through sheltering, pet placement programs, pet ownership education and animal law enforcement
Los Angeles	To promote and protect the health, safety and welfare of animals and people
San Diego	To protect the health, safety & welfare of people & animals
San Antonio	Animal Care Services' mission is to encourage responsible pet ownership by promoting and protecting the health, safety, and welfare of the residents and pets of San Antonio through education, enforcement, and community partnership.
Reno	Washoe County Regional Animal Services promotes responsible care of animals through education, proactive outreach, and regulation making Washoe County a safe community
Las Vegas	The mission of Clark County Animal Control is to promote public safety, rabies control and responsible pet ownership through education, service and enforcement

Public Safety

Source: Mission statements pulled from animal services websites in respective cities, BCG Analysis.

When considering animal services operations, there are multiple governance structures to consider

Subdivision within a department	Standalone Department	Partially Privatized ¹	Completely Privatized
<p>Operates all facets of animal services, but reports to the head of another department, creating a layer between animal services and city management</p> <ul style="list-style-type: none"> • Dallas, TX • Jacksonville, FL • Houston, TX 	<p>Operates all facets of animal services and reports directly to city management</p> <ul style="list-style-type: none"> • Los Angeles, CA • San Antonio, TX • San Diego, CA • Austin, TX • Miami, FL 	<p>City contracts part of its animal services operations to an organization, typically a nonprofit, that can operate animal services on behalf of the city</p> <ul style="list-style-type: none"> • Las Vegas, NV • Reno, NV • Atlanta, GA 	<p>City contracts all animal services operations to an organization, typically a nonprofit, that can operate animal services on behalf of the city</p> <ul style="list-style-type: none"> • New York, NY <i>(although not considered a benchmark to Dallas)</i>
<ul style="list-style-type: none"> • Las Vegas, NV (Animal control) • Atlanta, GA (Animal control) 	<ul style="list-style-type: none"> • Reno, NV (Animal control) 	<p>Note: above cities' animal control functions are government operated</p>	

1. Typically, cities/counties will only privatize their animal shelter operations and operate field collection themselves; Note: If operations are partially privatized, the part of the organization that is not privatized can be a subdivision within a department or a standalone department within the city/county; Source: BCG analysis

Each structure has different pros and cons and impact on key areas

	1 Resources and Talent	2 Communication and Coordination	3 Execution and Accountability
Subdivision within a department	<ul style="list-style-type: none"> ✗ Hiring leadership and staff difficult due to lower profile & complexity ✓ Can receive layover funds from parent department 	<ul style="list-style-type: none"> ✗ Lacks a "seat at the table" with senior city leadership ✗ Perceived to not prioritize animal welfare underneath Code 	<ul style="list-style-type: none"> ✗ Lower-level leadership role lacks authority to execute ✗ Multiple layers of mgmt cloud accountability
Independent department	<ul style="list-style-type: none"> ✓ Hiring easier due to higher profile ✗ Competes with other departments for budget 	<ul style="list-style-type: none"> ✓ Greater control over messages and access ✓ Demonstrates animal services as a priority 	<ul style="list-style-type: none"> ✓ Single accountability sharpens priorities ✓ Least likely to experience conflicts of interest
Partially privatized (Shelter only)	<ul style="list-style-type: none"> ✓ Hiring easier due to partial separation from city ✓ Fixed funding from city, but can receive donations 	<ul style="list-style-type: none"> ✓ Partial control over message, but removed from government ✓ Greater freedom of action ✗ Lack of coordination between shelter and animal control 	<ul style="list-style-type: none"> ✓ Greater operating potential ✗ Moderate effort in standing-up new structure
Completely privatized (Field + Shelter)	<ul style="list-style-type: none"> ✓ Hiring easiest due to complete separation from city ✓ Fixed funding from city, but can receive donations 	<ul style="list-style-type: none"> ✓ Free control of message, but removed from government ✓ Greatest freedom of action 	<ul style="list-style-type: none"> ✓ Greatest operating potential ✗ Org lacks accountability to city, potential conflicts exists ✗ No clear organization today to fill this need immediately ✗ Heavy setup effort

Note: Typically, cities/counties will only privatize their animal shelter operations and operate field collection themselves.

Source: BCG analysis

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THE BOSTON CONSULTING GROUP

Loose dogs in Dallas: Strategic Recommendations to Improve Public Safety and Animal Welfare

August 26, 2016

August 26, 2016

We are pleased to enclose The Boston Consulting Group's (BCG's) strategic recommendations for the city of Dallas, Dallas Animal Services (DAS), and the broader Dallas community. It has been a pleasure working closely with the Dallas community over the past three months, including members of Dallas Animal Services, City Council, the Dallas Animal Shelter Commission, individuals from local animal welfare organizations, and citizens.

During the course of this study, we have validated the seriousness of the loose dog problem in Dallas as it negatively affects the public safety of citizens and the well-being of dogs. Although this problem has plagued the city for many years, we believe that these strategic recommendations, if executed by a cohesive Dallas community, can make a material difference

In the pages that follow, we provide more detail on our approach, diagnostic findings, recommendations, and proposed path forward.

We are grateful for the opportunity to work with both Dallas Animal Services and the larger Dallas community and look forward to seeing quality of life and animal welfare improve across the city of Dallas.

Sincerely,

Dylan Bolden
Senior Partner & Managing Director
Head of BCG Dallas Office
The Boston Consulting Group

Table of Contents

Table of Contents 3

Executive summary..... 5

Basis for BCG recommendations..... 10

Context 11

 Dog population in Dallas 12

Loose dogs in Dallas 14

 Dog-related public safety 17

 Dallas animal services shelter operations 19

 Dallas animal services field operations 25

 Dallas animal services resources..... 31

 Dallas animal welfare organizations 33

Recommendations 35

Recommendation 1 – Publicly adopt a mission statement balancing public safety and animal welfare 39

 1.1 DAS should adopt a mission statement balancing public safety and animal welfare 40

 1.2 DAS should adopt a mission-centric scorecard with specific targets and regular progress updates 41

Recommendation 2 – Increase field *intake* (up to 8,700 *loose dogs*) and increase related enforcement and education to prevent dogs from roaming 43

 2.1 DAS should hire additional ASOs and focus 10 ASOs and 2 field supervisors on field collection and patrol..... 43

 2.2 DAS should increase ASO field *intake*..... 45

 2.3 The Dallas community should educate residents on both the dangers of allowing dogs to run loose and the ways to avoid dog bites 47

 2.4 The City of Dallas should make animal-related citations more effective 48

 2.5. DAS should share loose dog service requests with organizations that actively capture *loose dogs* 49

Recommendation 3 – Increase the number of positive outcomes for Dallas dogs, euthanizing only the sickest animals..... 50

 3.1 DAS should enhance its digital marketing for both adoptions and *transfers* 51

 3.2 DAS should increase adoption footprint 52

 3.2.1 Expanding its retail presence via an additional adoption location..... 53

 3.2.2 Expanding its retail presence via extended adoption hours 53

 3.3 DAS should increase volume through its *transfer* program 55

 3.3.1 Establishing a "*transfer-on-intake*" program with a single high-volume partner 55

 3.3.2 Segmenting *transfers* by size and support 56

 3.4 DAS should establish a pet transport program to facilitate out-of-state adoptions 57

3.5 DAS should deflect *owner surrenders* through owner assistance programs 58

3.6 DAS should provide enhanced behavior training to increase adoptability of dogs 59

3.7 DAS should hire one veterinarian and two vet techs to perform spay and neuter surgeries and vaccinations to support the increase in dog adoptions 59

Recommendation 4 – Provide 46,000 low-cost spay and neuter surgeries in southern Dallas each year for next three years..... 61

4.1 The Dallas community should provide 46,000 low-cost spay and neuter surgeries in southern Dallas for each of the next three years..... 61

4.2 Animal welfare organizations in Dallas should coordinate spay and neuter efforts 63

4.3 The City of Dallas should establish elementary school education programs related to pet ownership 65

4.4 DAS should enforce spay and neuter ordinances in coordination with outreach..... 66

Recommendation 5 – Create a collaborative community of partners 67

5.1 DAS should work with CIS and other city departments to provide open access to operating data and automated reporting 67

5.2 The animal welfare community of Dallas should share the workload of the strategic recommendations..... 68

5.3 The animal welfare community of Dallas should engage in an inclusive, fact-based dialogue ... 69

Recommendation 6 – Make animal services a priority and strengthen accountability within the city government 71

6.1 DAS should move out from under the Department of Code Compliance and become an independent municipal department 71

6.2 The city of Dallas should increase funding for Dallas Animal Services to support recommendations..... 75

6.3 The City of Dallas or DAS should hire a project manager and data analyst to oversee the implementation of recommendations..... 75

6.4 The Animal Advisory Commission should establish new subcommittees to support DAS 76

6.5 DAS should be exempt from the civil service hiring process..... 79

Recommendation 7 – Ensure efficiency by measuring outcomes and increasing volunteers... 80

7.1 DAS should align its organizational structure and employee performance with its mission 80

7.2 DAS should increase the scale of its volunteer program with a greater variety of roles 82

Next steps..... 85

Conclusion 87

Glossary of terms..... 89

BCG team 91

Endnotes 91

Executive summary

In June 2016, The Boston Consulting Group (BCG) was engaged to develop strategic recommendations for the city of Dallas to address the threat to public safety posed by *loose dogs* in the community and to continue to reduce euthanasia of dogs entering the DAS shelter.

BCG's goal was to:

- Quantitatively understand the **supply of dogs** in Dallas
- Identify **community priorities** given varying constituent perspectives
- Identify **best practices** from other animal services organizations across the US
- Identify and **prioritize levers** to maximize impact on public safety and animal welfare
- Synthesize findings in a **strategic plan** for the community of Dallas to achieve its goals

To develop a comprehensive understanding of the situation, we employed a team of consultants for eleven weeks. Our recommendations are based on:

- **Qualitative interviews** with nearly 100 stakeholders in Dallas
- **Quantitative analysis** of all available data sources including the DAS database (*Chameleon*), 311 service requests, and 911 Record Management System (RMS) calls
- **Primary research** including a loose dog census, resident survey, and a survey of rescue/animal welfare organizations
- Review of **third-party studies** from national organizations and academic studies
- **Benchmarking of animal services** organizations in ten highly comparable cities across the US, including 30 qualitative interviews and desk research

We found that there are more than 100 animal welfare organizations in Dallas and its surrounding areas. These organizations both address animal-related public safety issues and provide support to animals and pet owners by operating pet food banks, fostering dogs, rescuing dogs from the street, and performing low-cost spay and neuter surgeries (to name a few). These organizations have considerable resources, expertise, and volunteers that currently support the community of Dallas.

Within the Dallas animal welfare community, Dallas Animal Services (DAS) plays an important role as the sole entity responsible for responding to animal-related service requests, and it is the only *open admission* shelter in the city of Dallas. In a given year, DAS reports more than 48,000 service requests, intake of over 20,000 dogs, and over 100,000 customer touchpoints. Over the last 5 years, the percentage of respondents who rated Dallas animal control as "excellent" or "good" in the City of Dallas Community Survey conducted by the ETC Institute has decreased by

30%.¹ Additionally, respondents' satisfaction with Animal Control lags behind other cities surveyed by ETC, such as Austin and San Antonio.ⁱ

Since 2011, DAS has made significant improvements across its shelter operations, field operations, partnerships, and organization that have helped to nearly doubled its *live release rate* for its sheltered dogs from ~30% to ~60% today. Notably, DAS has achieved this while being significantly underfunded relative to animal services in comparable cities. DAS accomplishments since 2011 include:

- Improved in-shelter animal health through vaccinate-on-*intake* policies, Asilomar health assessments, segregation by health, and an increase in DAS surgery volume
- Expanded partnerships through select programs (e.g. Dallas Companion Animal Project Spay Days, Big Fix for Big D, PetSmart Everyday Adoption Center) as well as overall growth in its placement with *transfer* partners
- Increased adoptions through photograph-on-*intake* policies and expanded customer service
- Began use of shelter IT system (*Chameleon*) and increased reporting of data to the public
- Nearly doubled the number of positive outcomes for its sheltered dogs, increasing its *live release rate* from ~30% to ~60% and ending euthanasia of healthy animals
- Introduced additional Animal Service Officer (ASO) training and certifications including animal cruelty investigation
- Enhanced ASO connectivity, call prioritization, and reporting structure
- Secured and deployed grant resources to fund additional resources

However, we also observed a number of urgent public safety issues facing Dallas residents:

- A BCG census estimated ~8,700 *loose dogs* in southern Dallas, which collectively pose a risk to public safety, as *loose dogs* account for ~60% of dog bites in Dallas
- DAS bite reports indicate dog bites have increased 15% annually between 2013 and 2015, with bites from *loose-owned dogs* growing faster at 23% per year
- DAS field *intake* has fallen ~4% annually since 2011 and DAS ASOs bring in fewer dogs per officer than comparable city's ASOs
- The number of individuals who rate delivery of animal-related enforcement services by the city as "good" or "excellent" has fallen from 43% in 2011 to 30% in 2016ⁱⁱ based on a city-wide survey vs. 48% and 63% in San Antonio and Austin respectivelyⁱⁱⁱ
- DAS issues approximately 12 citations per day, but 44% of all citations issued are not responded to by defendants, leaving a gap in enforcement

¹ The percentage of respondents who answered that DAS was "excellent" or "good" decreased from 43% in 2011 to 30% in 2016.

We also observed opportunities for improvement regarding animal welfare:

- We estimate that ~85% of dogs in southern Dallas have not been spayed or neutered, which contributes to a high population of dogs and places a burden on the community to find homes for these animals (e.g., southern Dallas' dog population is estimated to produce approximately ~32,500 new puppies annually)
- Despite the community's effort to perform ~6,000 spay and neuter surgeries annually, the high percentage of intact dogs suggests too few surgeries occur to control the population
- In 2015, the *live release rate* for the ~20,000 dogs entering DAS was 59%; DAS euthanized a total of 8,535 dogs, of which 4,033 were assessed as treatable-rehabilitatable and 1,756 were categorized as treatable-manageable, indicating room for continued improvement
- DAS lacks a formal and contractual partnership with a large-scale brick and mortar rescue organization, something that is typical (and reported to be critical) among comparable cities to fill gaps in available government funding
- Finally, the various animal welfare organizations operating in Dallas, taken as a whole, have limited central coordination or collaboration resulting in an overlap of mission and effort

Finally we observed opportunities for improvement regarding organization and communication:

- DAS's existing organizational structure as a subsidiary of the Department of Code Compliance limits its visibility to city leadership, muddles accountability, and lessens its perceived status as a city priority
- A large portion of stakeholders highlighted the existence of opposing factions in Dallas' animal welfare community and a history of public attacks across these groups that have prevented collaboration across the community
- Limited access to data, whether due to systems limitations, policy decisions or a failure to communicate effectively, has impeded trust and collaboration across the community

To help address these issues, we recommend seven strategic priorities designed to improve public safety, improve animal outcomes, increase spay and neuter efforts, and facilitate organizational change.

Exhibit 1| Recommendations

Priority	Recommendation
Mission	1 Publicly adopt a mission statement balancing public safety and animal welfare
Initiatives	2 Increase field intake (up to 8,700 loose dogs) and increase related enforcement and education to prevent dogs from roaming
	3 Increase the number of positive outcomes for Dallas dogs, euthanizing only the sickest animals
	4 Provide approximately 46,000 low-cost spay and neuter surgeries in southern Dallas each year for the next three years
Enablers	5 Create a collaborative community of partners
	6 Make animal services a priority and strengthen accountability within the city government
	7 Ensure efficiency by measuring outcomes and increasing volunteers

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Based on our assessment, the most critical of our recommendations is providing a high volume of low-cost spay and neuter surgeries in southern Dallas through a three-year surge effort. This recommendation is the only solution that addresses both public safety (intact animals are more likely to roam and bite) as well as animal welfare (countless animals can be saved by preventing unnecessary population growth), while also creating change that is sustainable in the long term.

Because spay and neuter efforts do not yield immediate impact, we recommend additional initiatives to accelerate the rate at which positive change takes place. Among those initiatives are strategies to increase the number of *loose dogs* taken off the streets and to achieve more positive outcomes for dogs. These initiatives are supported by enablers to ensure they can be effectively implemented by the entire community of stakeholders.

While some of our recommendations include best practices, which should be carried out on an ongoing basis, others—such as the large increase in spay and neuter surgeries—represent temporary or "surge" initiatives that can be carried out in the near term, but scaled back over the long term.

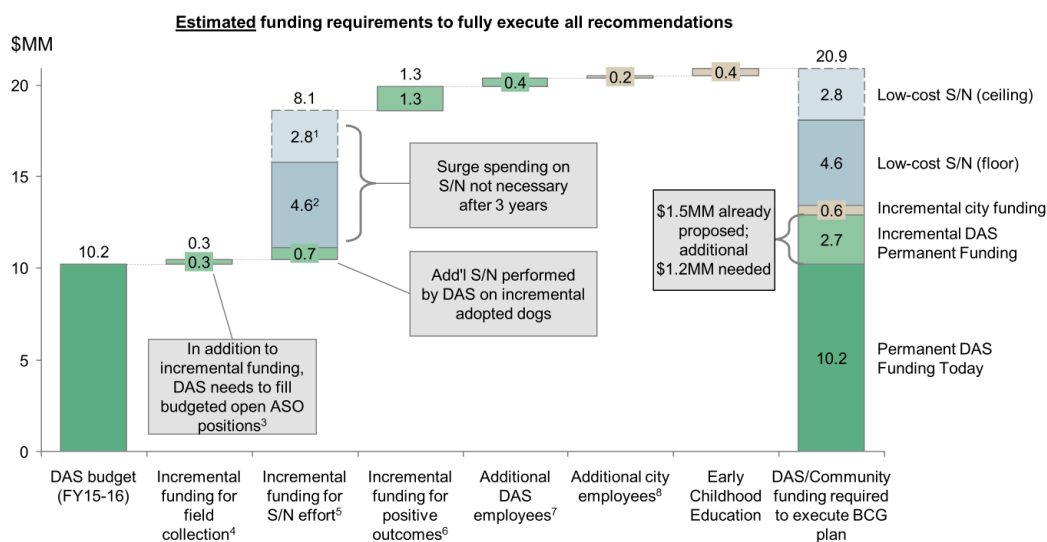
While these recommendations can meaningfully improve both public safety and animal welfare in the city of Dallas, it is important to note that all seven must be carried out in parallel to

achieve the desired effect—unbalanced actions will have unintended consequences negatively impacting public safety or animal welfare.

When successfully implemented, these recommendations should serve to reduce the number of dog bites occurring in Dallas because fewer dogs will be loose and because spayed and neutered dogs are less likely to bite. We also anticipate these recommendations will increase the number of positive outcomes for dogs sheltered at DAS by creating or expanding programs for *positive placement* and by reducing the long-term supply of dogs to be placed (through spay and neuter efforts).

Successful implementation of this plan must also include a coordinated effort on behalf of the entire community as well as incremental funding from both government and private sources.

Exhibit 2| Funding necessary to support recommendations



1. Assumes low-cost S/N available without restriction or qualification. Also assumes vets are paid salaries.; 2. Assumes means-testing for low-cost S/N—e.g., presentation of Medicare/Medicaid card, proof of free lunch for school-aged children, etc. Also assumes vets are paid per surgery; 3. At the time of this report, there were 8 ASOs and 2 field supervisor vacancies on the DAS organizational chart; 4. Cost associated with Recommendation 2, collection of loose dogs; 5. Cost associated with Recommendation 4.1 regarding dog population control and Recommendation 3 when there are additional dogs adopted out by DAS; 6. Cost associated with Recommendation 3, initiatives aimed at increasing LRR, excluding costs for spay and neuter and vetting additional adopted dogs; 7. Costs from additional DAS employees found in recommendations 5.1, 6.1, 7.1, and 7.2; 8. Cost associated with Recommendation 4.3
 Note: This includes the higher estimate of the ranges on recommendations 3.4 and 3.6
 Source: BCG analysis

In the pages that follow, we provide more detail on our approach, diagnostic findings, recommendations, and proposed path forward.

Basis for BCG recommendations

Between June 20 and August 19, 2016, BCG dedicated a team of consultants to analyze the public safety and animal welfare issues associated with *loose dogs* in Dallas.

To develop an understanding of animal services and public safety in Dallas, BCG completed local stakeholder interviews, analyzed relevant data sets, conducted its own census and surveys, studied efforts from comparable benchmark cities, and reviewed governmental and academic research.

Throughout the course of this project, BCG was aided considerably by the city of Dallas and Dallas Animal Services, who provided unfettered access to personnel and data.

In addition, nearly 100 private citizens in Dallas and 40 animal control and animal welfare professionals from across the country contributed their experiences and perspectives over the course of this project. Out of respect for their privacy we have not explicitly included their names in this report, but we owe them a debt of gratitude for their assistance.

Exhibit 3| Actions taken to develop understanding

Information Type	Actions Taken
Interviews with Stakeholders	<p>100+ stakeholder interviews completed including:</p> <ul style="list-style-type: none"> • Government: Council Members, Animal Commissions, Code & DAS, DPD • Non-profits: Animal rescue organizations, funders/philanthropies • Citizens: Town halls and specific involved individuals <p>~40 interviews with stakeholders from comparable benchmark cities including Atlanta, Austin, Jacksonville, Las Vegas, Los Angeles, Miami, Reno, San Antonio, and San Diego</p>
Data Analysis	<p>Detailed analysis of all relevant data sources:</p> <ul style="list-style-type: none"> • DAS data & Government: Chameleon, bite reports, 311, 911, Sanitation • Community Data: Historical S/N activity • Public Data: Census data
Primary Research	<p>Extensive primary research to collect new and unique information:</p> <ul style="list-style-type: none"> • Census: Roaming dog census in North and southern Dallas • Ride-a-longs: DAS field day, Targeted Response Team and CARE • Surveys: Community, Rescue/welfare organization
Secondary Research	<p>Gathered and reviewed large volume of available secondary research:</p> <ul style="list-style-type: none"> • Industry: HSUS, ICAMP, WSPA, ASPCA • Academic: The Ecology of Stray Dogs, Anthrozoos, Advances in Companion Animal Behavior, etc.

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Context

In June 2016, The Boston Consulting Group (BCG) was engaged to develop recommendations to assess and improve two fundamental expectations regarding animals within the city of Dallas:

- 1) **Public safety:** An expectation that residents can peacefully enjoy the city without being endangered or disturbed by loose or uncontrolled animals
- 2) **Animal welfare:** An expectation that animals be treated with dignity and care and that the life of an animal will only be taken if no reasonable alternative exists

The scope of this document and BCG's effort was limited to dogs, their impact on public safety, and their outcomes once admitted to DAS. While not specifically evaluated, some recommendations in this report may also prove relevant for cats.

Furthermore, while our primary focus has been the city of Dallas, it is our hope that these recommendations can, in some cases, be successfully applied to other cities facing similar challenges.

Dog population in Dallas

Dallas is home to approximately 350,000 dogs² and 185,000 dog-owning households.³ Approximately 150,000 of these dogs reside in southern Dallas, where dog ownership on a per capita basis is higher than in northern Dallas.⁴

The level of spay and neuter also varies substantially across the city. We estimate that ~85% of dogs in southern Dallas are intact compared to approximately 20% of dogs in northern Dallas.^{iv}

Based on estimates of the dog population, spay and neuter levels, and reproduction rates, we expect approximately 36,000^{5v} puppies will be born in the coming year in the city of Dallas, of which approximately 32,500 will be born in southern Dallas. On its own, this would lead to an implied population growth rate of ~10% however as ~35,000 dogs will die from natural causes,⁶ the net increase in the Dallas dog population will likely be closer to 1%.

While on its own this 1% increase could be easily absorbed, the stark difference in spay and neuter levels between northern Dallas and southern Dallas complicates the dynamic. In northern Dallas, 16,000 more dogs are expected to die of natural causes than will be born. As a result, residents of northern Dallas must buy or adopt ~16,000 new dogs per year to replace pets that pass away.⁷ By contrast, in southern Dallas ~17,000 more dogs are expected to be born in 2017 than will die of natural causes. This means residents of southern Dallas must either take in or rehome ~17,000 new dogs to accommodate the net increase in the population due to breeding. Given the human population of southern Dallas is growing at 1.4% annually, this increase in the dog population—which amounts to ~10%—poses a significant challenge that could lead to a continued threat to both public safety and animal welfare.

² According to the American Veterinary Medical Association (AVMA), Northern Dallas has 0.584 dogs per household. By averaging estimates from the AVMA (0.583 dogs/household) and Pets for Life (1.182 dogs/household), we estimate that southern Dallas has 0.883 dogs per household. Experian estimates that there are 333,700 households in northern Dallas and 173,598 households in southern Dallas (based on estimates from Q2 2015).

³ According to the AVMA, 36.5% of US households own a dog

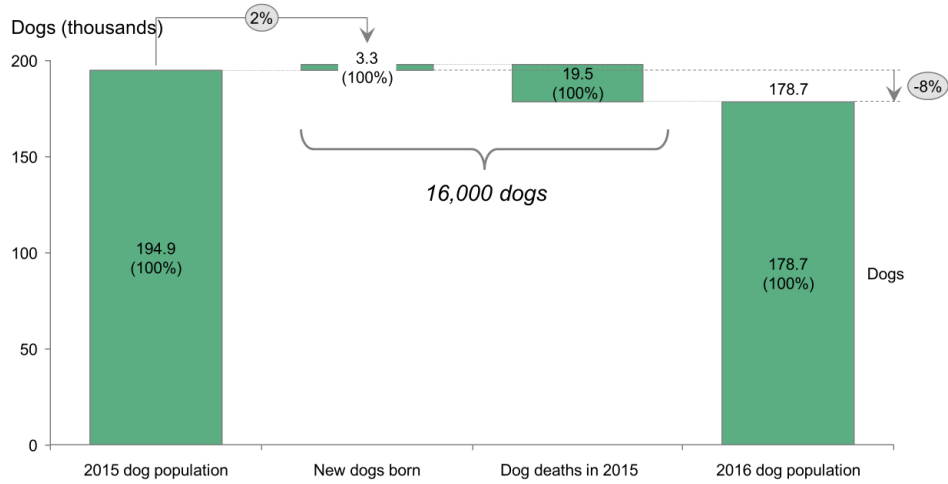
⁴ There are 173,598 households in southern Dallas and 0.883 dogs per household. There are 333,700 households in northern Dallas with 0.583 dogs/household.

⁵ As stated in "Birth and Death Rate Estimates of Cats and Dogs in US Households," birth rate assumes 1.16 litters per year, 7 puppies per litter, and a 75% birth survival rate, for an average of 6.09 puppies per year for each intact female. Sex ratio is assumed to be 50/50.

⁶ A ten-year life expectancy implies 10% of dogs die in a given year.

⁷ This is without any *community interventions*.

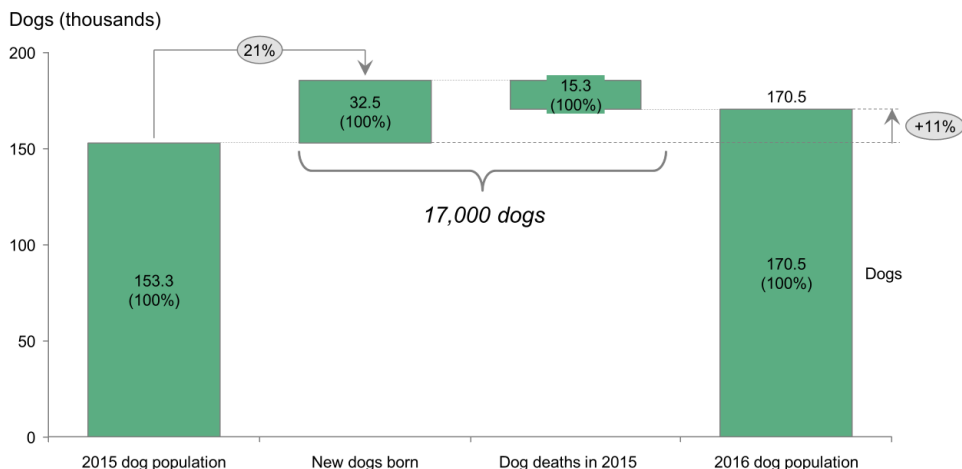
Exhibit 4| Northern Dallas estimated dog population



Note: See compendium for more detail
 Source: Experian Current Year Estimates (Q2 2015) for population data, AVMA, PFL, Birth and Death Rate Estimates of Cats and Dogs 2004, ASPCA, Canine Perinatal Mortality Study 2012, BCG analysis

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Exhibit 5| Southern Dallas estimated dog population



Note: See compendium for more detail
 Source: Experian Current Year Estimates (Q2 2015) for population data, AVMA, PFL, Birth and Death Rate Estimates of Cats and Dogs 2004, ASPCA, Canine Perinatal Mortality Study 2012, BCG analysis

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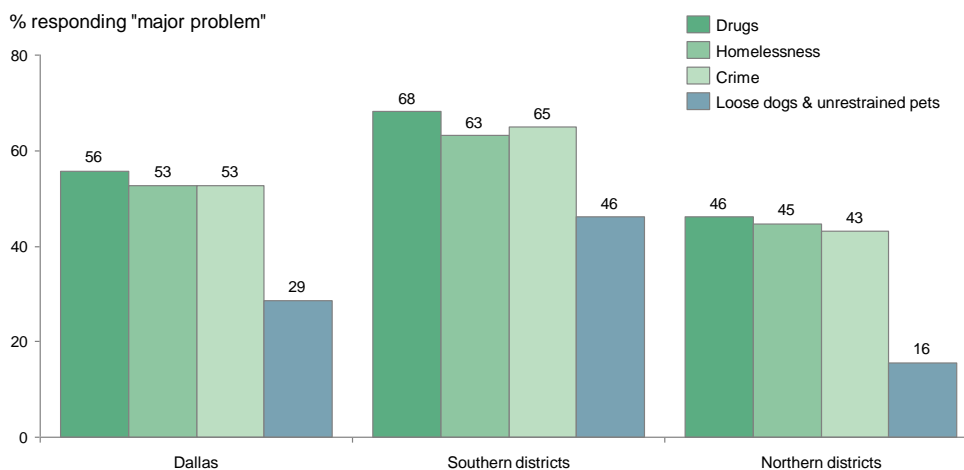
Loose dogs in Dallas

Around the time of this project, local news reports highlighted the presence of *loose dogs*, dog bites, and dog attacks in Dallas, indicating that Dallas residents felt threatened by a loose dog crisis that was intensifying.

These headlines were, in part, corroborated by the 2016 Dallas Community Survey^{vi}—conducted by the ETC institute—which found that 46% of southern Dallas residents felt "*loose dogs*" were a "major problem" compared to 16% in northern Dallas.

Exhibit 6| Dallas community ranking of "major problems" in the city

% of Dallas community considering a problem a "major problem" from 2016 Community Survey



Note: I-30 used to separate North from southern Dallas. North Dallas includes districts 2,6,9,10,11,12,13,14. Southern Dallas includes districts 1,3,4,5,7,8.
 Source: Dallas Community Survey 2016 conducted by ETC Institute

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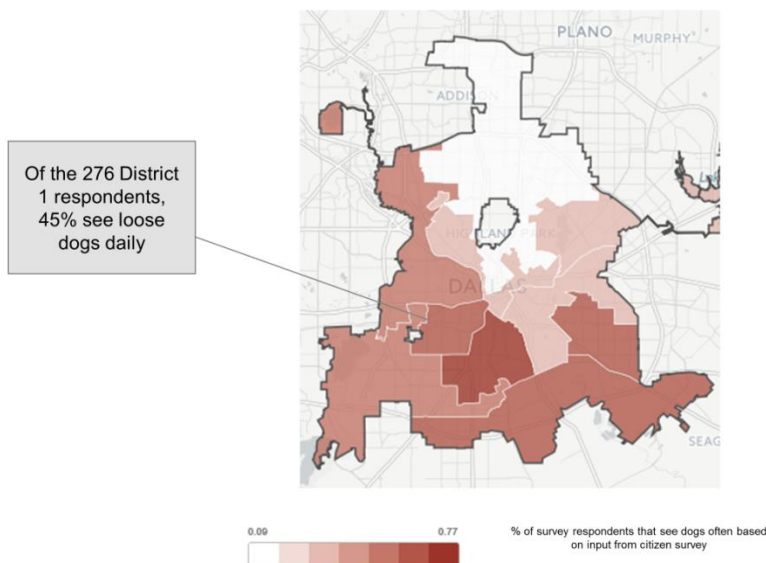
Furthermore, national studies indicate that intact animals (those not spayed or neutered) are more likely to roam, suggesting that low spay and neuter levels in southern Dallas likely contribute to a higher frequency of roaming dogs.^{vii}

To validate reports and estimate the total loose dog population, BCG conducted a census of *loose dogs*.

First, BCG conducted an open survey of Dallas residents to identify areas with the most or fewest loose dog sightings. Of the ~2,000 residents completing the survey, some respondents reported that they saw *loose dogs* in their neighborhood on a weekly or daily basis and felt these dogs to be a threat to their safety.^{viii} The survey results indicated a higher prevalence of *loose dogs* in southern Dallas, which allowed BCG to focus its census efforts.

Exhibit 7 | Dallas survey respondents who see dogs in their neighborhood daily

Results are based on open access survey and subject to participation bias. Duplicate responses removed.



Note: Q: *Approximately how often do you see a loose dog in your neighborhood?* Often is at least once per day. ; Note: Only used residents that provided addresses. All n=2594. North Dallas n=665. southern Dallas n=299
 Source: Community Survey conducted by BCG in June 2016; BCG analysis

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Second, to quantify the community's reported sightings, BCG conducted a census of *loose dogs* to estimate the total loose dog population.

BCG travelled previously-defined, but random, routes through Dallas neighborhoods between 6:00 – 7:30am, counting *loose dogs*, and removing any double-counting of *loose dogs* through photographic comparisons.

In southern Dallas, the BCG team spotted 135 loose⁸ dogs along 176 miles of road driven, which suggests a population of ~8,700 *loose dogs* in southern Dallas based on two analytical methods defined and used by the World Health Organization (WHO) and the World Society for the Protection of Animals (WSPA).⁹ Due to a lack of observations (only one loose dog seen in northern Dallas along 59 miles driven), we have not estimated the loose dog population for northern Dallas.

⁸ In addition, our census observations suggest that the vast majority of observed loose dogs are owned, as most appeared well-fed and some had collars.

A second, independent effort conducted by the Southern Dallas Animal Initiative during the same period, estimated ~7,100 *loose dogs* in southern Dallas based on a reported 428 loose dog observations along 525 miles of road.

Dog-related public safety

National trends

The CDC has estimated that ~885,000 dog bites requiring medical care occur every year in the US.^{ix} Other national research suggests that ~70% dog bites in the US can be attributed to intact male dogs,^{x,xi} and the overwhelming majority of these dogs have an owner (88%).^{xii}

Furthermore, stray or *loose dogs* are responsible for 35-45% of dog bites in the US,^{xiii} while the rest can be attributed to known dogs in a confined setting (an owner, family member, or a friend/visitor being bitten in or near the dog's home). Finally, victims of dog bites are likely to be the most vulnerable members of the community, either the very young (38%) or the elderly (30%).^{xiv}

Dallas trends

Dog bites, and specifically dog bites by *loose dogs*, have been covered in the local Dallas news during the summer of 2016, with headlines such as:

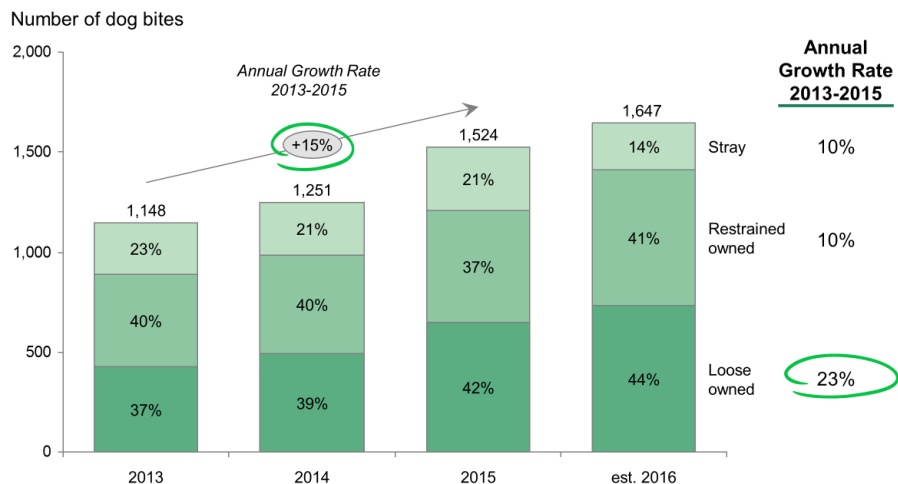
- "Dallas's Stray Dog Problem Gets Worse After Woman's Death"^{xv}
- "Dallas Postal Workers Worried about Increase in Loose Dog Attacks"^{xvi}

To separate headlines from actual trends, BCG evaluated calls to both 311 and 911 for dog attacks to determine whether these calls have increased over the last three years. While these data sources suggested an increase in bites, the data was found to be unreliable given substantial changes to reporting systems and taxonomy.

Instead of relying upon these indicators of public safety levels, BCG analyzed DAS bite records, as they provide the official record for the Texas Department of State Health Services on all animal bites in the city of Dallas. Historically, DAS bite records have been captured and recorded on physical paper cards. While DAS has begun the transition to digitize this data, BCG manually entered data of ~5,000 historical bite reports to understand the recent trajectory.

This analysis revealed that dog bites have increased between 2013 and 2015 at an annualized rate of 15%, and bites by *loose dogs* are growing faster at an annualized rate of 23%.

Exhibit 8 | Dog bites in Dallas have increased

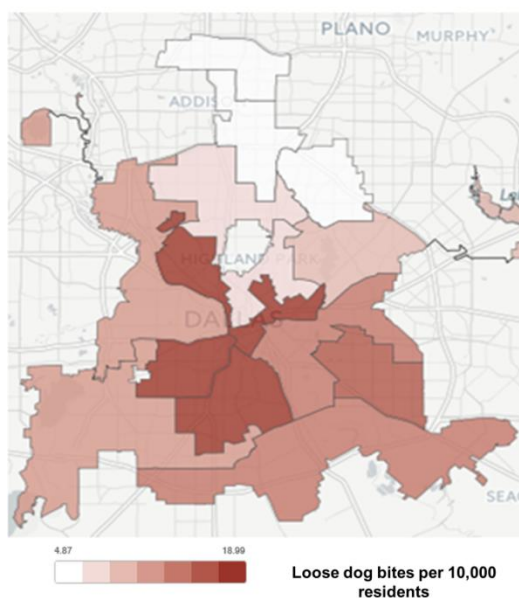


Note: See compendium for more detail.
Source: DAS dog bite reports 2013 – Q1 2016 (n=4290), BCG analysis

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Loose dogs and loose owned dog bites predominate in southern Dallas. By mapping the available owner addresses of *loose dogs* that bit people between 2013 and 2016, it can be seen that the majority of owners are concentrated in southern and western Dallas.

Exhibit 9| Dog bites primarily occur in southern Dallas



Note: Assumes that the owner of the loose dog who bit is a proxy for the location of the dog bite
 Source: DAS dog bite reports 2013 – Q1 2016 with owner addresses that are locatable in Dallas and the "at large" (or loose) field was marked yes. (n=1,442), BCG analysis
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In conversations with southern Dallas residents, many claimed to carry protection against *loose dogs* when walking in their neighborhoods (including bats, knives, guns, and pepper spray), and such behavior was observed by BCG consultants during the dog census.

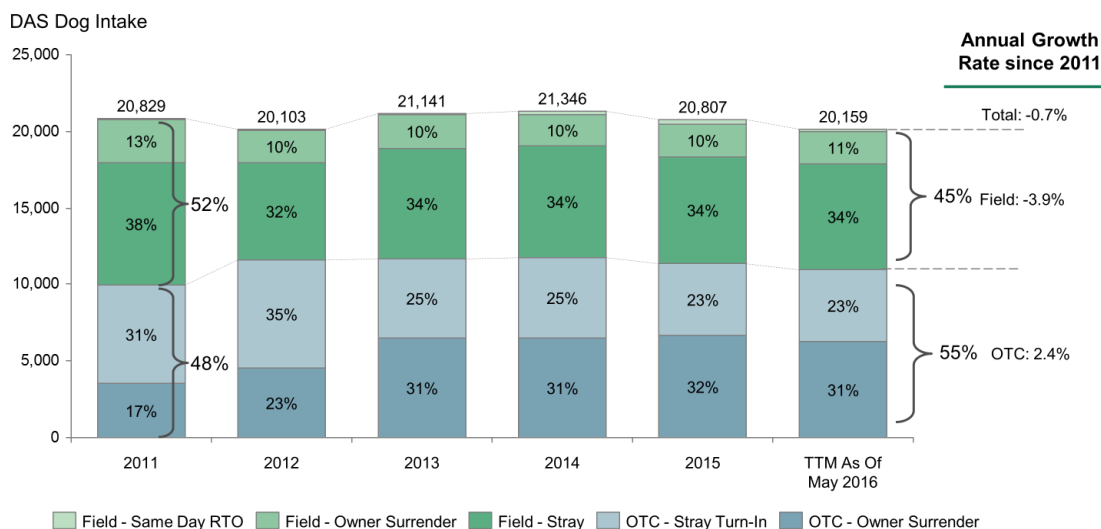
Dallas animal services shelter operations

DAS collects dogs daily through its field operations and, because it is an *open admission* shelter, must also accept all dogs that residents of Dallas bring to its shelter. DAS is responsible for collecting animals across the city of Dallas ("the field") through its Animal Service Officers (ASOs). In addition to field *intake*, ASOs respond to animal-related complaints from 311, investigate possible rabies bites, enforce animal related ordinances, investigate animal cruelty, handle court-related activities, assist in disaster response, and administer euthanasia.

From 2011-2015, DAS had an annual *intake* of approximately 20,000 dogs, which equates to an average of approximately 55 dogs per day. This number fluctuates seasonally, peaking significantly in the summer, with some days approaching an *intake* of 150 dogs.

In 2015, 55% of *intake* came over the counter, or OTC (that is, dogs brought directly into DAS), and 45% came from the field (that is, dogs collected by DAS animal service officers). Specifically, *intake* was split among OTC – *Owner Surrenders* (~6,600, 32%), OTC – *Stray Turn-In* (~4,700, 23%), *Field – Stray* (~7,000, 34%), *Field – Owner Surrender* (~2,100, 10%), and *Field – Same Day RTO* (~400, 2%). Overall, dog *intake* has remained relatively flat since 2011.

Exhibit 10| Sources of DAS’s annual dog intake



Note: See compendium for more detail
 Note: TTM = trailing twelve months
 Source: DAS Chameleon database, BCG analysis

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The DAS shelter has approximately 500 kennels¹⁰ to house dogs. Of these kennels, ~120 are for adoption, ~200 are for general use, and ~180 are for restricted specific use (e.g., for dogs that are contagious, injured, quarantined, in protective custody, isolated, new moms, and puppies). During 2015, average kennel utilization across all dog kennels was ~70%, with kennel utilization for both general and adoption kennels at ~90%, and restricted dog kennel utilization at ~45%.

¹⁰ Dallas Animal Services’ Westmoreland location has approximately 650 kennels for all animals.

Usage above 90% can effectively be viewed as 100% utilization, as the average daily *intake* exceeds the average number of available kennels.

Dogs entering the DAS shelter for any reason, other than *owner surrender*, must be held by DAS for a mandatory three-day¹¹ or ten-day¹² *legal hold*. In 2015, 38% of dogs were not subject to a legal hold, 47% were subject to a three-day hold, and 15% were subject to a ten-day hold. On average, dogs stayed at DAS ~9.4 days total or ~5.5 days beyond the legal hold period. For dogs with a three-day hold, the average stay beyond the legal hold was 5.3 days. For dogs with a ten-day hold, the average stay beyond the legal hold was 2.2 days.¹³

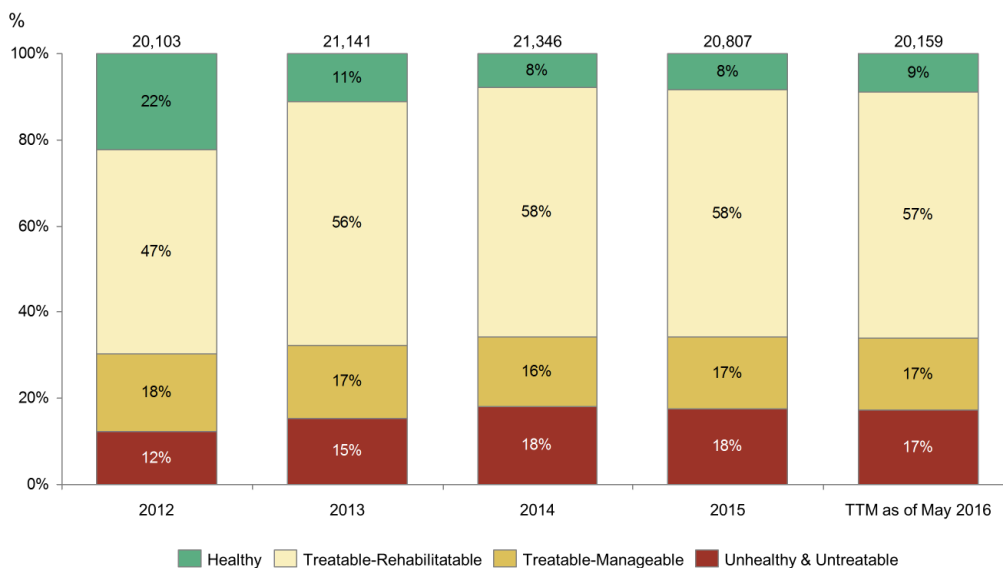
At DAS, animal health is assessed upon *intake* using Asilomar Accords which were adopted in 2011. The Asilomar Accords are used nationwide by numerous animal shelters and rescues, though adjusted for a given community to reflect its unique circumstances. Today, 9% of dogs arriving at DAS are identified as "Healthy," 57% as "Treatable-Rehabilitatable," 17% as "Treatable-Manageable," and 17% as "Unhealthy and Untreatable."

¹¹ Any animal that enters the shelter without a microchip or collar is subject to a three-day legal hold, not including the day of intake.

¹² Any animal that enters the shelter with a microchip or collar is subject to a ten-day hold, not including the day of intake.

¹³ This excludes dogs that are euthanized or returned to owner on the day of intake.

Exhibit 11| Health status of dogs when received by DAS

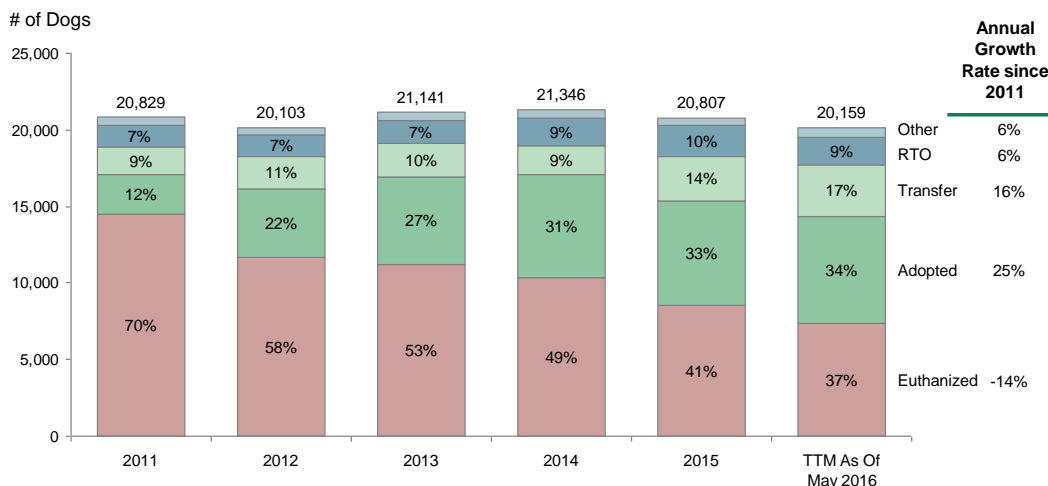


Note: See compendium for more detail
 Note: TTM = trailing twelve months
 Source: DAS Chameleon database, BCG analysis

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In 2015, ~2,000 dogs (10% of *intake*) were returned by DAS to their owners, ~6,800 dogs (33% of *intake*) were placed through adoption, ~2,900 dogs (14% of *intake*) were transferred to partner/rescue organizations, ~500 were classified as "Other" (including ~250 dead-on-arrival), and ~8,500 dogs (41% of *intake*) were euthanized.

Exhibit 12| Outcomes for dogs at DAS

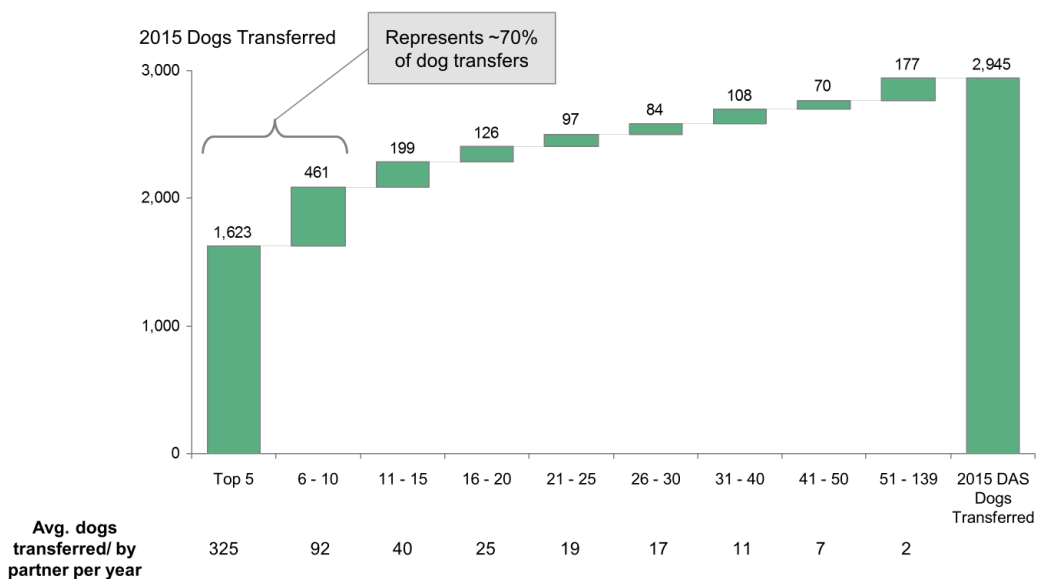


Note: TTM = trailing twelve months
Source: DAS Chameleon database

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DAS has made significant improvements in its *live release rate* over the past five years, doubling the number of positive outcomes. It has done this by growing both adoptions and *transfers*. In 2015, DAS *transferred* dogs to ~140 partners. Ten of these partners were responsible for 70% of all dog *transfers*. Approximately 90 of DAS's *transfer partners* pulled an average of 2 dogs each in 2015.

Exhibit 13| Number of DAS dogs transferred to rescue organizations in 2015



1. Among smaller volume rescues are organizations that focus only on a specific breed or have much smaller kennel capacity than other rescues.
Source: DAS Chameleon database

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At the same time, Dallas lags many other major cities with comparable circumstances and/or intake volumes on *positive placement*.

Exhibit 14| LRR for open admission shelters



Note: Live release rates correspond to either 2014 or 2015 depending on figures most recently reported by each shelter.
 Source: Data based on statistics from city/county shelter reports and benchmark interviews.

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Dallas Animal Services field operations

DAS is responsible for collecting animals across the city of Dallas ("the field") through its 33 ASOs.¹⁴ In addition to field *intake*, ASOs respond to animal-related requests from 311, investigate possible rabies bites, enforce animal-related ordinances, investigate animal cruelty, handle court-related activities, assist in disaster response, and administer euthanasia. ASOs employ various approaches to fulfill these responsibilities, including, but not limited to the following:

- Capture loose animals using poles, treats, and traps
- Impound dogs that are in dangerous environments
- Impound dangerous dogs
- Issue *civil* and *criminal citations* to enforce animal ordinances

¹⁴ This includes senior ASOs and ASOs but does not include the seven field supervisors/managers, the office assistant, the intake clerk, or the bite investigator, all of whom also operate in the field department.

- Issue violations to warn and educate citizens on proper ordinances
- Educate citizens on pet ownership and city ordinances
- Investigate animal cruelty cases
- Manage rabies quarantine and reporting process
- Conduct bite investigations
- Assist police and fire department
- Support disaster response efforts

Our interviews indicate that DAS' 33 ASOs spend a large portion of their time on manual, administrative processes: mapping and driving between locations in Dallas (35%), processing *intake* at the shelter (11%), and updating the *Chameleon* database on their activities (6%).^{xvii}

Each officer serves four 10-hour shifts each week. There are three types of shifts for ASOs.^{xviii}

- 1) **Reactive:** Approximately 80% of shifts are spent responding to 311 calls. ASOs drive to the addresses provided in 311 service requests in prioritized order. The result of these requests is typically dog capture, citations, and/or education.
- 2) **Proactive:** Approximately 10% of shifts are proactive education, targeted outreach, and proactive dog collection. This occurs primarily through *Targeted response team sweeps* and the CARE team efforts.
- 3) **Shelter:** Approximately 10% of shifts are spent in the shelter with ASOs recording bite data and administering euthanasia.

The following sections include additional detail on 311 requests, the CARE team, citations, and dog collection.

311 requests

From June 2015 to May 2016, DAS received over 48,000 requests from 311. Of all the 311 requests, ~30,000 were dispatched and responded to by ASOs.^{xix,xx} When an ASO responds to a request, he or she drives to the specified address and searches for the complaint. Sometimes, the source of a complaint cannot be located because there is no animal or person at the address and no follow-up information has been provided. If the source of the complaint can be located, the ASO will typically capture a dog, issue a citation, and/or educate the person on city animal ordinances.

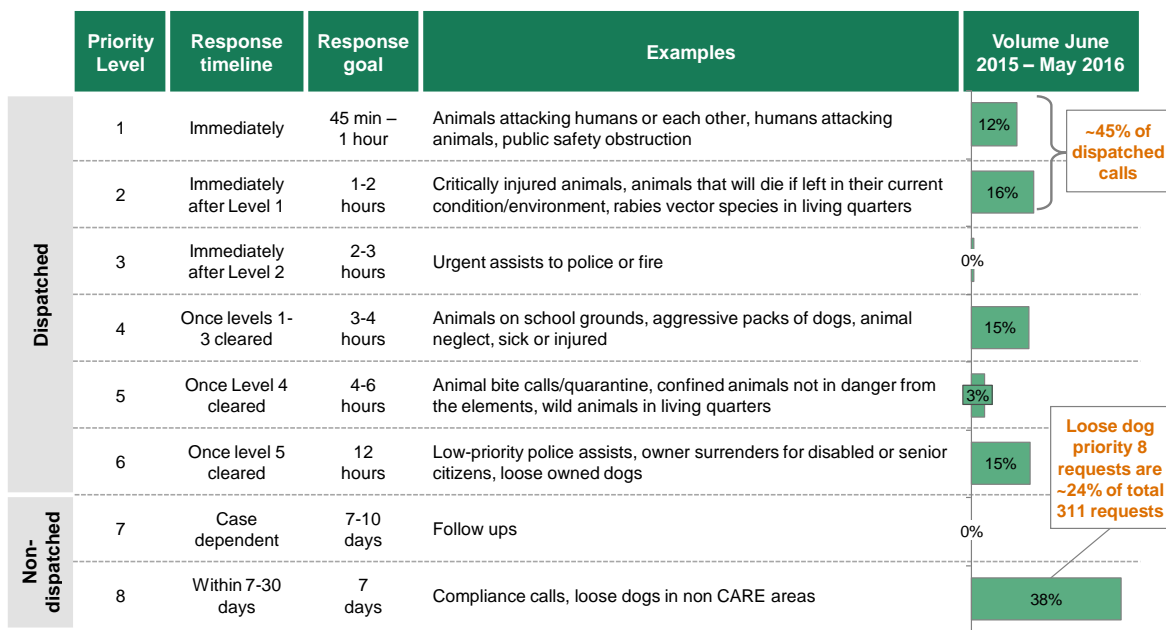
ASOs work 10-hour shifts, starting as early as 7:00 am and ending as late as 11:00 pm. On average, ~80 requests are dispatched to ASOs each day, and ~45% of these are priority 1 or 2 requests regarding a human or animal in imminent danger. Given that there are 12 ASOs responding on any given day, ASOs respond to an average of 7 requests each shift.

Of the ~48,000 total requests received over the 12 months ending May 2016, ~19,000 (38%) were not dispatched to ASOs because they were categorized as the lowest priority. These non-

dispatched calls include, among other things, reports of non-dangerous, not-owned *loose dogs* in non-CARE areas. Non-dispatched calls are recorded and used to identify areas that need focused ASO resources, such as a CARE team. Where possible, letters are sent to the addresses of non-dispatched requests with information on city animal ordinances.

With the limited number of ASOs available to respond to calls at any point in time, it is not possible to respond to every loose dog request with the current level of resourcing, given the time required to drive between requests and the time required to locate fast moving dogs (many cannot be located at all). Moreover, priority calls where a human or animal is in imminent danger must remain the immediate priority of ASOs.

Exhibit 15| Animal-related 311 requests between June 2015 – May 2016 in Dallas



Note: This analysis was done on Average response times based on when requests were "Closed" in the 311 system. Due to changes in reporting, these averages are approximate on ~44k of the total 48k requests
 Source: 311 request data, 311 Animal Service Request Types matrix from 311, "Follow-up to Dallas Animal Services Update" to Quality of Life Committee on 5/6/2016, BCG analysis

CARE team^{xxi}

The CARE team (Community Animal Resource Effort) consists of 4 ASOs and 3 coordinators/managers that are responsible for the majority of DAS's proactive education. This team works four days a week conducting door-to-door outreach in one census tract over the course of one month. A census tract is an area roughly equivalent to a neighborhood with a population of 2,500-8,000 people. Census tracts are prioritized for the CARE team based on historical 311 animal-related service requests.

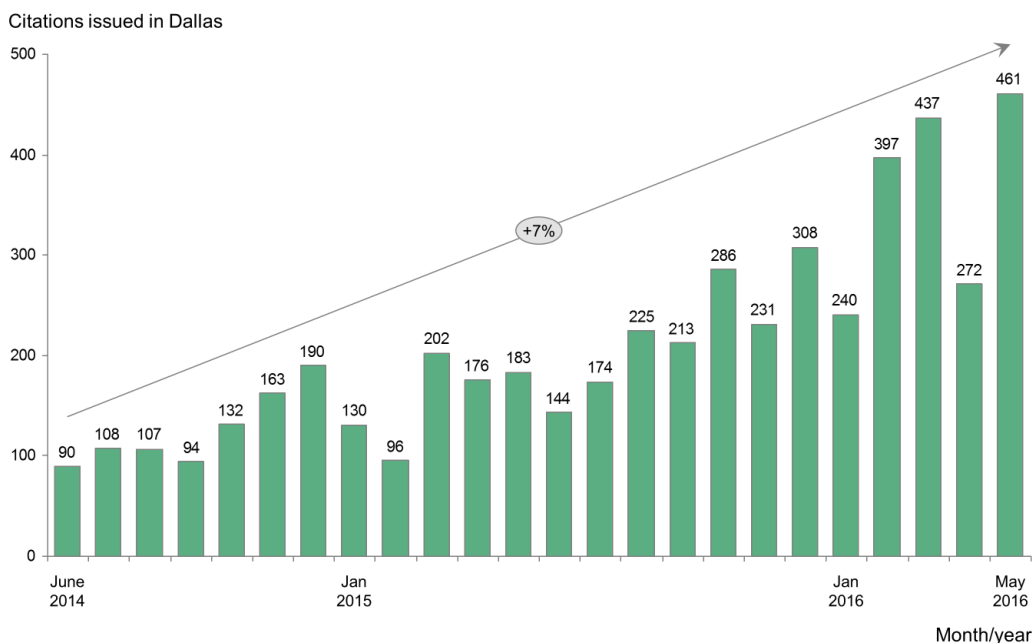
During the first half of a given shift, the CARE team sweeps the area for *loose dogs* and returns them to owners, where possible. (BCG was unable to determine the number of dogs that are collected during these sweeps.) For the second half of the shift, this team visits every household in the neighborhood to educate citizens on animal-related city ordinances and available low-cost animal resources (e.g., spay and neuter). Sometimes, the CARE team must visit a house multiple times before someone is home, especially given that many residents work during the time of the shifts. Two weeks after the initial visit, the CARE team returns to households with pets to determine if they are in compliance with animal-related ordinances. If they are not, ASOs issue citations.^{xxii,xxiii}

From April through July 19 of 2016, according to internal DAS records, the CARE team made contact with an average of 105 houses per day^{xxiv}. Prior to April 2016, derivations of the CARE team, such as the Targeted Area Initiative, were executed. As of mid August 2016, the CARE team began to use volunteers in its efforts.^{xxv} Although the volunteer role in this program has not been scaled yet, DAS plans to do so.

Citations

During the 24 months between June 2014 and May 2016, the number of citations issued by ASOs increased each month at a rate of 7%. In January through May of 2016, ASOs issued 1,807 citations, averaging approximately 12 citations per day in total, or 11 citations per month per ASO.^{xxvi} Approximately 2% of all citations issued during this time were *civil citations*, and the rest were *criminal citations*.

Exhibit 16| Citations issued between June 2014 – May 2016



Source: Citation data from municipal courts

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While it is not the responsibility of DAS to manage the payment of fines, an analysis of outcomes of DAS citations indicates that only 36% of all citation fines were paid in the 24 months following June 2014.^{xxvii} Of all citations issued in 2015, approximately 44% remained in Initial Arraignment, which means that the defendant did not respond to the citation.^{xxviii}

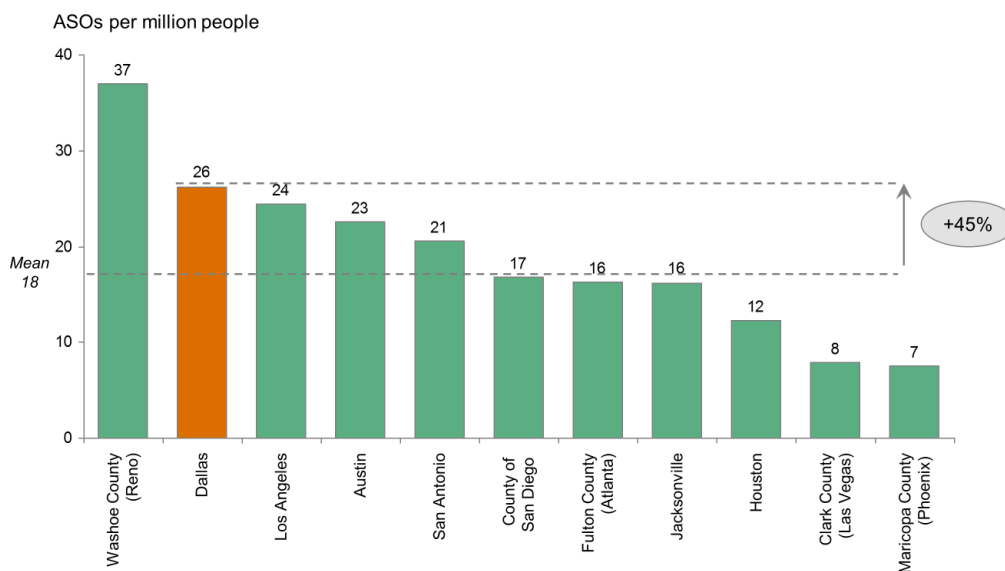
Dog collection

In 2015, ~74% (~7,000) of all field *intake* came from the capture of *loose dogs*, ~22% (2,100) came from dogs surrendered by owners in the field, and the remaining 4% (or 2% of total *intake*) were dogs captured and returned to their owners on the same day. Total field *intake* has decreased at a 4% annualized rate since 2011, field *owner surrenders* have decreased at 6%, and *field collection of loose dogs* have decreased at approximately 4%.^{xxix} Dogs are typically captured by ASOs using dog poles. Occasionally, one of approximately 50 traps in DAS’s inventory is set and, as needed, dogs are retrieved with the assistance of tranquilizer darts.

ASO staffing levels

DAS has 33 active ASOs.¹⁵ When compared to organizations in peer cities, DAS has 45% more ASOs per million people, but each ASO collects approximately 20% fewer dogs than ASOs in peer cities do. Other measures of ASO productivity could include citations issued, education administered, and call volume addressed.

Exhibit 17| Number of DAS animal services officers

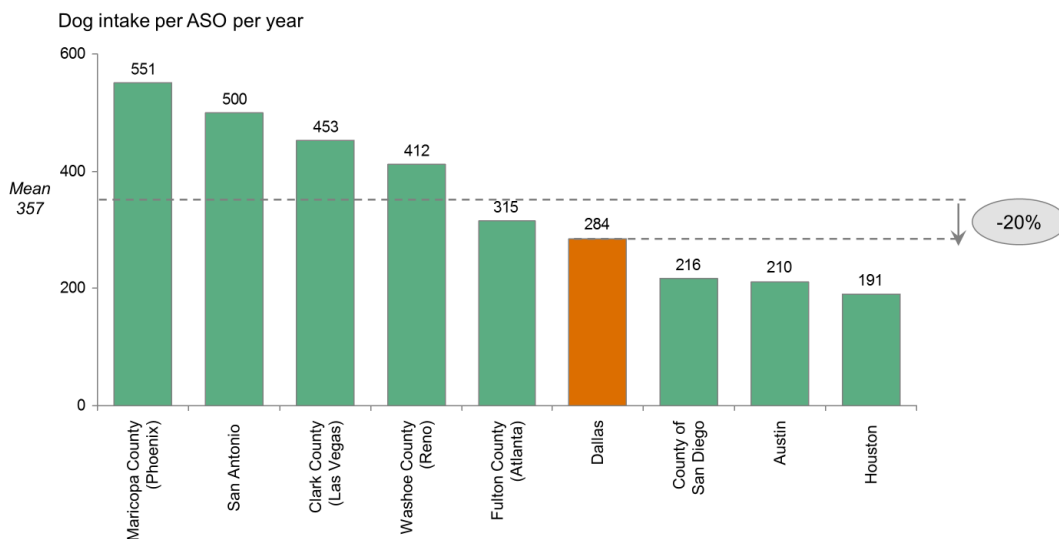


Note: Assumes that 33 ASOs with a field intake of 9,363 for CY 2015 in Dallas
 Source: DAS Chameleon Database, Maricopa County Yearly Report (2016), Personal Interviews with Animal Control Centers of NYC, Clark County Animal Control, County of San Diego Animal Services, Houston BARC, Fulton County Animal Services, Austin Animal Services, Jacksonville Animal Services, San Antonio Animal Services, Los Angeles Animal Services, Washoe County Regional Animal Services, US Census Bureau (2013), BCG analysis

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¹⁵ DAS has self-reported an actual ASO base of 33. The FY16 budget has 37 ASOs. On the June 27, 2016 organization chart, there are 37 filled positions and 8 vacant ASO positions. For the purposes of this report, we assume that DAS has 33 active ASOs on staff.

Exhibit 18| Dog intake per ASO per year



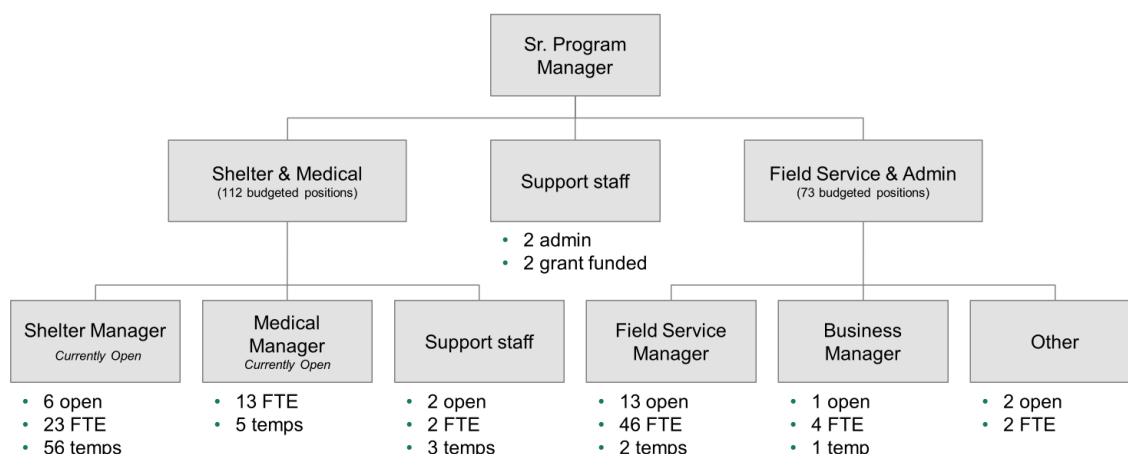
Note: Assumes that 33 ASOs with a field intake of 9,363 for CY 2015 in Dallas
 Source: DAS Chameleon Database, Maricopa County Yearly Report (2016), Personal Interviews with Animal Control Centers of NYC, Clark County Animal Control, County of San Diego Animal Services, Houston BARC, Fulton County Animal Services, Jacksonville Animal Services, San Antonio Animal Services, Los Angeles Animal Services, Washoe County Regional Animal Service, BCG analysis

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Dallas Animal Services resources

As of June 27, 2016, DAS had 192 positions per its organizational chart. Of the 192 positions, 166 were filled and 26 were open or unfilled, including key positions for a shelter operations manager, a medical team manager, and a data analyst. Of the 166 filled positions, 102 were full-time and 64 were temporary employees (45 of which were day laborers).^{xxx}

Exhibit 19| DAS organization



Source: DAS June 27, 2016 organizational chart.

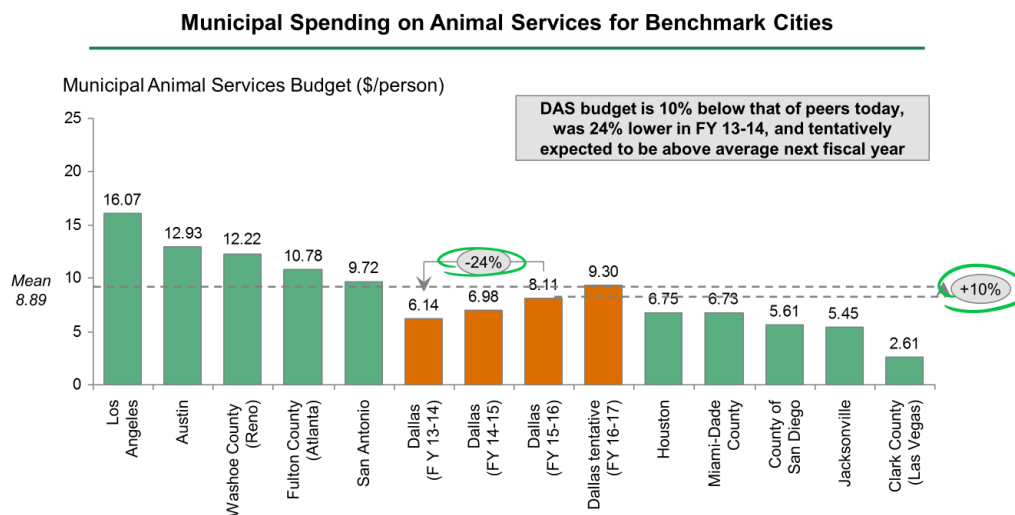
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Historically, Dallas Animal Services has been underfunded relative to its peers on a per capita basis. More recently, following multiple budget increases, Dallas Animal Services increased its budget to \$10.2 million for fiscal year 2015-2016; however, it still lags its peers by ~\$0.78 per person or nearly ~\$1 million in aggregate.

In many comparable cities in the US, animal services departments effectively increase their municipal budgets by forming an explicit and contractual partnership with a major nonprofit organization. Animal services departments with such partnerships significantly reduce their expense burden by *transferring* activities and costs to their partners. In interviews with animal services and city professionals in peer cities, these types of partnerships were consistently cited as a critical success factor.

While it is impossible to quantify the exact financial advantage of such partnerships, below we illustrate the order of magnitude of their impact by adding the annual budgets of the partner organizations to the annual budget of the animal services department in peer cities. While we understand that the animal services departments do not benefit from 100% of the partners' funding, the exhibit demonstrates that DAS' lack of such a partnership represents a major financial deficit.

Exhibit 20| DAS budget



Note: Mean excludes Dallas; Source: Interviews with management from Los Angeles Animal Services, Washoe County Animal Services, County of San Diego Animal Services, San Antonio Animal Care Services, Fulton County Animal Services Austin Animal Services, Dallas Animal Services FY 2015 General Fund Budget, Jacksonville Animal Care and Protective Services, and Clark County Animal Control.; Lifeline Animal Project 990 Tax Form (2014), Miami-Dade Animal Services Projected Budget (2015), US Census Bureau 2013 Population Estimate and BCG analysis

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Dallas animal welfare organizations

In addition to DAS, there are over 100 organizations operating in the animal welfare landscape in Dallas. These organizations perform a variety of activities including:

- Placing animals with new owners through adoption
- Operating a network of foster homes
- Providing pet ownership education
- Rescuing strays from the streets
- Transporting animals to different cities and states
- Providing financial support to pet owners in need
- Advocating for animal-related legislative issues
- Providing low-cost behavioral training
- Performing discounted spay and neuter surgeries

- Operating a shelter for animals
- Performing humane investigations and emergency rescues
- Trapping, neutering, and releasing animals
- Hosting vaccination clinics
- Hosting microchip clinics
- Providing low-cost veterinary care
- Offering door-to-door education and spay and neuter information
- Operating pet food pantries and food banks

To better understand the landscape of these organizations, BCG issued a *Rescue and Animal Organization Survey* to animal-related groups in the Dallas area. This survey was conducted online, and "cold" emails and calls were made to more than 100 groups. Seventy two distinct organizations participated in the survey. From these respondents, we found that these organizations provide many resources to the Dallas area: survey respondents had an aggregate annual budget of over \$28 million. Most are growing; 74% report that they are growing while only 6% report that they are shrinking.

According to the survey responses, these organizations overlap in their missions and activities. 89% of the surveyed organizations place animals with new owners through adoption, 77% operate a network of foster homes, and 76% provide pet ownership education.

An analysis of the 58 surveyed organizations that rescue dogs (provide shelter, foster, or transport for dogs) indicates that these organizations had *intake* of ~30,000 dogs in 2015 and could house around 4,000 dogs at any given time. DAS already leverages and partners with some of these rescue organizations. In 2015, DAS *transferred* dogs to over 100 distinct rescue organizations. According to the Rescue and Animal Organization Survey, 61% of respondents "agree" or "strongly agree" that DAS has improved over the last three years. However, the largest partners, responsible for ~60% of total rescue dog *intake*, source a small percentage of all of their dogs from DAS (2%)^{xxxi}.

Exhibit 21| Reported dog intake from survey respondents

	Top 3 Rescues In Dallas	Other Rescues In Dallas	Total
# of rescue / transfer organizations	3	~55 (limited to survey)	30,867
Reported 2015 dog intake	20,373 (66%)	10,494 (34%)	30,867
Dog intake from DAS	386 (2%)	2,559 (24%) ¹	2,945 (10%)
% of DAS dog transfers	13%	87%	100%

DAS has low share with Dallas' largest rescues
Top 3 Rescue organizations in Dallas pull only 2% of their annual intake from DAS

Note: See compendium for more detailed assumptions.
 Source: Rescue and Animal Organization survey (n=72), BCG analysis

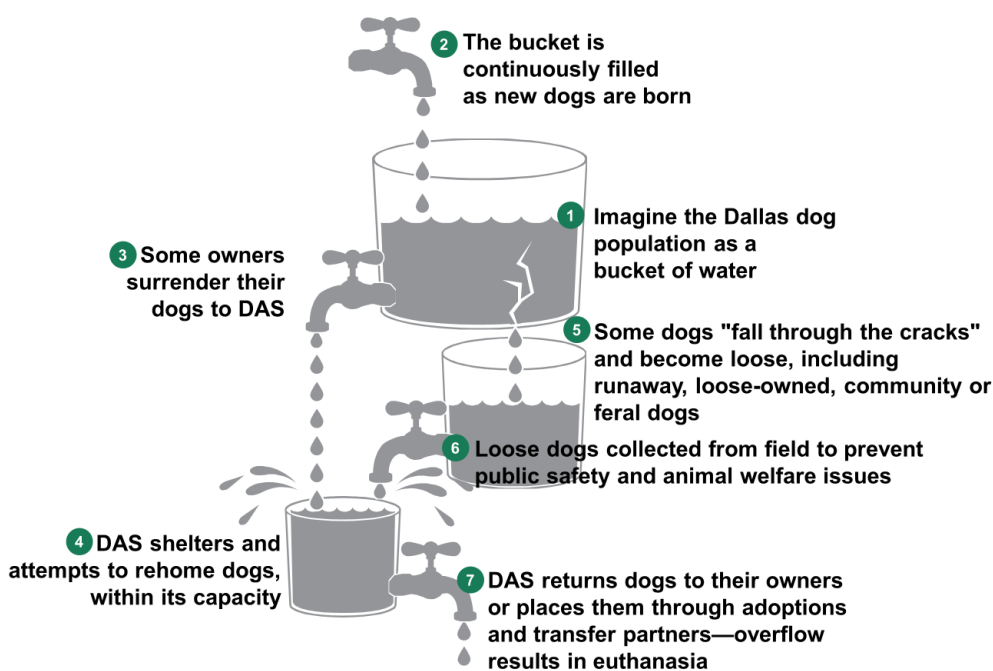
Recommendations

Given the objective of improving both public safety and animal welfare, BCG recommends that the city of Dallas, Dallas Animal Services, animal welfare organizations, animal-oriented philanthropies, and the people of Dallas focus their efforts on seven recommendations:

- 1) Publicly adopt a mission statement balancing public safety and animal welfare
- 2) Increase field *intake* (up to 8,700 *loose dogs*) and increase related enforcement and education to prevent dogs from roaming
- 3) Increase the number of positive outcomes for Dallas dogs, euthanizing only the sickest animals
- 4) Provide 46,000 low-cost spay and neuter surgeries in southern Dallas each year for the next three years
- 5) Create a collaborative community of partners
- 6) Make animal services a priority and strengthen accountability within the city government
- 7) Ensure efficiency by measuring outcomes and increasing volunteers

When considering these recommendations, a conceptual framework of buckets and spouts can help to highlight how a given strategy affects our dual objectives of public safety and animal welfare.

Exhibit 22| Dallas dogs conceptualized as buckets and flows



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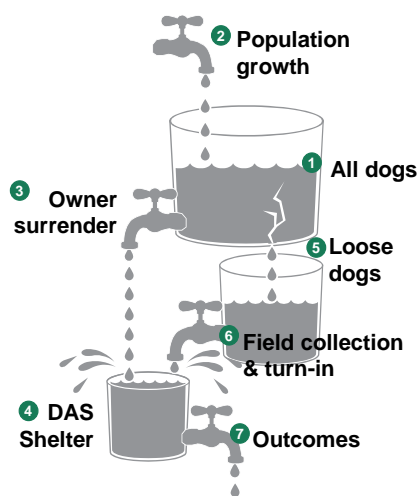
The most effective solution is reducing the number of new dogs born into the system, which in turn reduces the pressure across every bucket and spout. As a result, our most critical recommendation is providing a high volume of low-cost spay and neuter surgeries in southern Dallas through a three-year surge effort. This recommendation is the only solution that addresses both public safety (intact animals are more likely to roam and bite) as well as animal welfare (countless animals can be saved by preventing unnecessary population growth), while also creating change that is sustainable.

Because spay and neuter efforts do not yield immediate impact, we recommend additional initiatives to accelerate the rate at which positive change takes place. Among those initiatives

are strategies to reduce the number of *loose dogs* on the streets and to create more positive outcomes for dogs.

While these recommendations can meaningfully improve both public safety and animal welfare in the city of Dallas, it is important to note that all seven must be carried out in parallel to achieve the desired effect—unbalanced actions may have unintended consequences that negatively impact public safety or animal welfare. For example, focusing exclusively on picking up *loose dogs* would likely result in higher levels of euthanasia in the short term and have little benefit to public safety in the long term as new dogs are born.

Exhibit 23| A coordinated effort required



Isolated single actions compromise public safety or animal welfare, or lack sustainability

Single Action	Direct or Unintended Consequence
6 Pick up all the loose dogs	2 People replace pets given large supply of new dogs
5 Encourage community to keep loose dogs off the street	7 Euthanasia spikes from increased intake
4 Build a bigger shelter	2 If breeding continues, dog population overwhelms the most responsible of owners
2 S/N all the dogs	3+6 Intake fills shelter, returns to "business as usual"
	5 Owned pets still roam the streets

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While some of our recommendations include best practices, which should be carried out on an ongoing basis, others—such as the large increase in spay and neuter surgeries—represent temporary or "surge" initiatives that can be carried out in the near term, but scaled back over the long term.

When successfully implemented, these recommendations should serve to reduce the number of dog bites occurring in Dallas as a result of fewer dogs being loose and the fact that spayed and neutered dogs are less likely to bite. We also anticipate these recommendations will increase the number of positive outcomes for dogs sheltered at DAS by creating or expanding programs for

positive placement and by reducing the long-term supply of dogs to be placed through spay and neuter efforts.

Supporting these solution-oriented initiatives are recommended enablers to ensure these efforts are effectively implemented by the entire community of stakeholders.

Successful implementation of this plan requires a coordinated effort by the entire community as well as incremental funding from both government and private sources.

In the pages that follow, we provide a rationale for each recommendation, suggested ownership, supporting evidence, and estimated costs to implement.

Recommendation 1 – Publicly adopt a mission statement balancing public safety and animal welfare

Today, DAS's mission, as stated on their website, is largely focused on animal welfare.

Dallas Animal Services and Adoption Center is dedicated to the humane treatment of animals in Dallas and educating others about responsible pet ownership. We reinforce these ideals every day by providing daily care for hundreds of animals in our shelter, assisting citizens who come to see us as well as out in the community. We respond to calls regarding animal welfare and concerns, conduct free Responsible Pet Ownership classes, hold offsite animal adoption events, and speak at and provide educational information at public safety fairs, environmental festivals, and neighborhood organizations.

DAS also has a secondary mission statement that has not been publicly shared, which is also largely focused on animal welfare.

To strengthen our community through outreach and enforcement efforts that preserve the human animal bond through the city of Dallas

When comparing mission statements of comparable cities one can observe a range of statements that emphasize animal welfare, public safety, or a blend of the two, where DAS's mission statement(s) have a heavier focus on animal welfare than many other comparable organizations.

Exhibit 24| DAS mission statement primarily focuses on animal welfare

Animal Welfare

Austin	To provide public service and a safety net for lost and homeless animals in the community by providing necessary food, water, shelter and standard municipal veterinary care for animals in need
Dallas (public)	Dallas Animal Services and Adoption Center is dedicated to the humane treatment of animals in Dallas and educating others about responsible pet ownership . We reinforce these ideals every day by providing daily care for hundreds of animals in our shelter, assisting citizens who come to see us as well as out in the community. We respond to calls regarding animal welfare and concerns, conduct free Responsible Pet Ownership classes, hold offsite animal adoption events, and speak at and provide educational information at public safety fairs, environmental festivals, and neighborhood organizations
Dallas (private)	To strengthen our community through outreach and enforcement efforts that preserve the human animal bond through the City of Dallas
Miami	To save the lives of abandoned animals in our care, reunite lost pets with their owners, protect the people and pets in our community from health related issues and ensure the public's safety
Jacksonville	Jacksonville's Animal Care and Protective Services (ACPS) provides animal control to the citizens in Jacksonville by fair enforcement and community education. ACPS also enhances the quality of life in our neighborhoods by offering quality pets for adoption at a reasonable cost . ACPS is dedicated to providing a high level of service to the citizens in Jacksonville and to saving the lives of all adoptable animals in our community
Houston	Our mission is to promote and protect public health and animal care through sheltering, pet placement programs, pet ownership education and animal law enforcement
Los Angeles	To promote and protect the health, safety and welfare of animals and people
San Diego	To protect the health, safety & welfare of people & animals
San Antonio	Animal Care Services' mission is to encourage responsible pet ownership by promoting and protecting the health, safety, and welfare of the residents and pets of San Antonio through education, enforcement, and community partnership.
Reno	Washoe County Regional Animal Services promotes responsible care of animals through education, proactive outreach, and regulation making Washoe County a safe community
Las Vegas	The mission of Clark County Animal Control is to promote public safety, rabies control and responsible pet ownership through education, service and enforcement

Public Safety

Source: Mission statements pulled from animal services websites in respective cities, BCG analysis

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Given the dual objectives of stakeholders interviewed by BCG, public safety and animal welfare, we recommend a mission statement that balances these needs. Further, because a mission statement alone is not sufficient to gauge progress, we recommend specific metrics to track progress against this mission and measure success.

1.1 DAS should adopt a mission statement balancing public safety and animal welfare

Rationale: A mission statement is a tool that helps organizations set priorities, communicate intention, and set expectations for the public and partners.

We believe DAS's current mission statement lacks sufficient emphasis on public safety. Given the current needs of the Dallas community, we recommend that DAS adopt the following

mission statement (or similar):

- Our mission is to ensure public safety, promote animal welfare, and contribute to a stable population of animals within the city of Dallas. Successful execution of our mission depends on the efficient and data-driven use of resources as well as collaboration with community partners.

1.2 DAS should adopt a mission-centric scorecard with specific targets and regular progress updates

Rationale: While a focused mission statement is useful to align stakeholder expectations and priorities, it is not sufficient to measure success. To succeed in its mission, we recommend DAS adopt the following mission-centric scorecard and targets (or a similar set of metrics).

A balanced scorecard should include metrics that measure public safety, positive outcomes, population control, partnership success, and operating efficiency.

A data analyst will be necessary to create and update the mission-centric scorecard. The cost for this employee is included in recommendation 7.1.

Exhibit 25| Community scorecard can be used to track progress

To be agreed by community				
Objective	Goal (Metric)	Current Level	2017 Target	2019 Target
Reduce number of Loose Dogs	Fewer loose/roaming dogs (to repeat loose dog census in 2017)	8,700	5,500	1,500
	Fewer dog bite reports from loose and stray animals	1,676	1,500	800
	Fewer bite/animal-related emergency calls to 311 and 911	43,836	40,000	30,000
Increase LRR	Improved LRR (Live Release Rate)	59%	69%	86%
Control Population through S/N	Higher rate of S/N among dogs in southern zip codes	15%	43%	80%
	High volume of S/N surgeries delivered	5,000	28,000	46,000
	Lower long term absolute intake from southern Dallas	13,466	22,166	10,000
Increase Collaboration	Increased partner satisfaction (to be surveyed)	50%	60%	70%
	Increased number of volunteer hours	1.2 FTE	10 FTE	25 FTE
Improve Efficiency	Decrease in average length of stay	7.6 days	7	6
	Increased efficiency of animal service officers (dog intake per year)	286	350	450

Note: See compendium for more detail
 Source: BCG Dallas dog census, DAS dog bite reports, 311 service requests, 911 calls, DAS Chameleon database, Big Fix for Big D, Spay and neuter Network, Dallas Companion Animal Project, Pets for Life, Geocoding analysis, BCG Rescue and Animal Organization Survey (n=72), DAS volunteer hour excel file, BCG analysis

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Recommendation 2 – Increase field *intake* (up to 8,700 loose dogs) and increase related enforcement and education to prevent dogs from roaming

BCG's second recommendation focuses on reducing the number of *loose dogs* on the streets of Dallas, with the goal of improving public safety and quality of life. Dallas residents have the right to peacefully enjoy the city without being endangered or disturbed by loose or uncontrolled animals.

Increasing field *intake*, in isolation, would likely result in higher levels of euthanasia at Dallas Animal Services, due to the relationship between shelter utilization and euthanasia. However, when implemented in parallel with recommendation 3 (opportunities to increase positive outcomes for dogs), the increased *intake* should not result in higher levels of euthanasia. We believe increased *intake* is necessary to balance both public safety and animal welfare.

It should also be noted that any success in picking up *loose dogs* would be short-lived unless accompanied by long-term improvements in spay and neuter levels (to bring future population growth under control) as outlined in recommendation 4. In short, if Dallas does not control population growth, there will always be more dogs to collect. Hence, recommendations 2, 3, and 4 must exist in harmony to balance public safety and animal welfare, and achieve sustainable results.

2.1 DAS should hire additional ASOs and focus 10 ASOs and 2 field supervisors on field collection and patrol

Rationale: Today, the majority of DAS ASOs are call-focused in that ~80% of their collective time is spent responding to priority 311 calls. These calls are necessary from an animal services and population health perspective; however, 311 calls are a largely unproductive means of collecting dogs. DAS typically has 12 to 14 ASOs¹⁶ working field shifts each day, excluding shifts in the shelter, with daily field *intake* of 25 dogs per day.

Based on expert interviews, a dedicated ASO unit that would proactively patrol a given area would be a more effective means of increased field *intake* of *loose dogs*.

We recommend DAS dedicate two teams of five ASOs to such a unit, which would be responsible for collecting *loose dogs* using the most effective methods appropriate, educating the community about ordinances, and referring those in need to available assistance.

For example, on a given day this unit might:

- Catch a loose dog using a standard ASO pole
- Trap or chemically capture a loose dog
- Issue citations for loose, unregistered, unvaccinated, or intact dogs

¹⁶ On any given day, DAS deploys two shifts of five ASOs responding to 311 requests, two ASOs from the CARE team, and two additional ASOs working in the field.

- Educate an owner about ordinances regarding loose, unregistered, unvaccinated, or intact dogs and refer them to resources to bring their animal into compliance
- Return a loose dog caught to its owner in the field with the appropriate citation and/or scheduled appointment to bring that animal into compliance
- Introduce themselves to actively involved neighbors who could become a direct source of information about loose animals and built trust in the community

Today, DAS executes *Targeted response team sweeps* weekly (typically on Wednesdays) in which it targets specific areas of the city with a team that patrols, collects, and issues citations over a few hours. It will be helpful to leverage this pre-existing practice for this recommendation, but increase the scale of that effort to full-time coverage. The first priority of this team should be to locate and collect *loose dogs* while door-to-door education efforts are secondary.

With the recommended dog *field collection* teams, DAS has the opportunity to collect an additional ~6,000 dogs each year. This estimated impact relies on several key assumptions. First, the dedicated force of ASOs would work in two teams of five, given that the team-based capture model is most effective for loose dog collection.^{xxxii} Second, each ASO team can collect approximately 15 dogs per team per day (three per ASO).^{xxxiii} Third, each *intake*-dedicated ASO team would run sweeps four days per week, focusing, for example, on early morning (3:00 am – 9:00 am) and early evening (6:00 pm – 9:00 pm), when dogs are most active and when ASOs could engage with residents leaving for or coming home from work.^{xxxiv} As seasonal shifts occur, it may be necessary to alter the sweep times to adapt to dog behavior.

The incremental cost incurred would be ~\$240,000 for four additional fully-equipped trucks, at a cost of \$60,000 each (one-time cost), and ~\$94,000 in recurring labor costs each year for two additional ASOs.¹⁷ It also requires that DAS fill current open positions (as of the writing of this report, the DAS organizational chart showed that there were 8 open ASO positions and 2 open supervisor positions) and reallocate additional ASOs to this dedicated collection effort.

To speed the hiring process, it is recommended that DAS forgo the civil service hiring process (as noted in recommendation 6.5).

In the event that DAS is unable to hire additional ASOs for an extended period of time, it is recommended that DAS partner with local organizations that are active in loose dog capture (as noted in recommendation 2.5).

¹⁷ This was determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits.

2.2 DAS should increase ASO field *intake*

Rationale: On average, one DAS ASO brings in ~284 dogs a year,¹⁸ which is approximately 73 fewer than comparable animal control units. Cities with high *intake* per ASO include Phoenix (Maricopa County) and San Antonio, where annual dog *intake* per ASO is 551 and 500, respectively.

DAS could make several changes to increase ASO *intake*. By implementing the following tactics, it is believed that ASOs can increase their *intake* level to 357 dogs per ASO per year, which is the average field *intake* for ASOs from comparable cities.

- 1) **Improve 311 processes.** 311 dispatch and operators are a pain point for ASOs. Calls are sometimes miscategorized as high priority or lack sufficient information for ASOs to respond. Approximately 30% of all priority 1 requests cannot be responded to because by the time an ASO arrives at the address there is no person, no animal, or no follow up contact information.^{xxxv} As one DAS ASO commented, “Sometimes, I get to a Priority 1 call for Attack in Progress, and when I get there, there is no human, no dog, and no contact information for the recorded address. That call was probably a loose dog and not an attack. It shouldn’t have even been dispatched.”

If the 311 operator and dispatcher could more effectively capture data, categorize requests, and dispatch requests, ASOs’ responses to calls could be more efficient. This can be achieved by revising the 311 scripts, increasing coordination between 311 and DAS, and/or bringing the 311 operator and dispatcher in house. Approximately half of benchmark cities have their own animal control call centers and the other half utilize the city’s or county’s general call center.^{xxxvi}

The 311 operator/dispatcher needs to develop expertise in animal-related calls and continuously improve the 311 animal-related script in order to more accurately classify requests and capture the information necessary for effective ASO response. We recommend DAS bring a four-person 311 request team in house to improve the 311 process.

- 2) **Optimize 311 response mapping.** Approximately 6% of ASO time is spent mapping out routes^{xxxvii} on physical maps or on personal phones. (Historically, ASOs have been provided flip phones by DAS). 29% of time is spent driving between calls. By automating mapping, either on smartphones or through the mapping application in *Chameleon*, ASOs can minimize their time spent prioritizing calls, mapping routes, and driving, and instead focus more time on dog capture or community engagement. DAS has reported that it is in the process of sourcing smartphones, and we support these efforts.
- 3) **Eliminate manual record keeping.** Today, ASOs spend time recording 311 requests

¹⁸ This assumes 33 DAS ASOs collected 9,363 dogs in 2015.

and bite reports on paper^{xxxviii} even though ASOs also enter their activities and outcomes in the *Chameleon* database. By streamlining data entry and relying on *Chameleon* as the definitive source of data, ASOs can eliminate time spent on manual recordings. Completely digitized records will also eliminate complexity in reporting and retrieving data. DAS has reported that it is in the process of digitizing more information, and we support these efforts and encourage that they be accelerated. The success of this outcome relies, in part, on the efficacy of DAS's technology systems.

- 4) **Upgrade field connectivity to *Chameleon*.** *Chameleon* software is used to dispatch officers and store all of their activity data. Often the computers in their trucks become dislodged from the docking station or disconnected from the Internet.^{xxxix} One ASO reported “[We need] improved access to our primary operating system [*Chameleon*] while in the van. Most of the docking posts [in the vans] provide terrible connection to the system, causing numerous delays.”^{xi} By improving field connectivity, DAS can eliminate ASO time spent waiting to upload notes or to determine their next 311 response.
- 5) **Improve fleet and equipment management.** Evidence suggests the fleet of DAS trucks has not been efficiently maintained, leaving trucks and equipment in disrepair. One DAS supervisor reported that the majority of trucks were overdue for maintenance and oil checks. As a result, on days when shifts overlap, there may not be enough trucks available for ASOs to drive. As one ASO noted, “Often vans are not working, poles are not working, and I have not been able to get new ones for quite some time.”^{xii} If maintenance were done consistently on the trucks and equipment throughout the year, ASOs could increase the number of *loose dogs* captured.
- 6) **Encourage ASOs with recognition and metrics.** ASOs report feeling isolated from the rest of DAS staff. During staff meetings, field operations are reportedly excluded and ASO achievements in capturing dogs or issuing citations are not recognized. In order to better motivate and include ASOs in the operations, DAS should introduce metrics and recognition around dog capture and citations.
- 7) **Require consistent schedules from ASOs.** According to the DAS employee interviews, ASOs are able to miss work for extended periods of time without any consequences. One ASO pointed out that there are some officers “who refuse to work or come to work.” While we cannot verify this assertion, a larger share of ASOs vs. other DAS positions reported that poor individual performance is tolerated. DAS should ensure that ASOs maintain consistent schedules, especially during times when calls are most active.

Management at DAS has already initiated several changes to improve ASOs' field *intake*. For example, more equipment, such as blowguns, has been ordered. New trucks with LED lights for night shifts have been budgeted and the efficacy of night shifts has been evaluated. Truck

inspections have been scheduled. In addition, DAS field supervisors have recently adjusted the ASO schedule to be two ten-hour shifts, ensuring that there are overlapping shifts during the times when there is the highest volume of 311 requests (Tuesday-Thursday from 1-5pm).

To be more in line with other cities, DAS should aim to increase field *intake* to 357 dogs per ASO per year, or an additional ~2,400 annual field *intake*, given the current number of ASOs (33) and current annual field *intake*. The estimated cost would be ~\$168,000, which would cover salaries (\$42,000)¹⁹ for two 311 dispatchers and two 311 operators. If DAS chooses to improve the 311 request process without bringing operators and dispatchers in house, it should use the \$168,000 to support other efforts that would increase ASO efficiency.

2.3 The Dallas community should educate residents on both the dangers of allowing dogs to run loose and the ways to avoid dog bites

Rationale: Today, community education efforts in Dallas are facilitated by the DAS CARE team and other volunteer organizations.

Currently, the CARE team that works 4 shifts a week, with the help of volunteers, the team visits 105 houses a day.²⁰ This model is not a scalable solution to address the 173,598 households in southern Dallas. In fact, at the current rate it would require ~17 years for the DAS CARE team to reach each southern Dallas household twice.²¹ In order to reach each southern Dallas household twice within two years, the community needs ~8.5 times more manpower than the current CARE team today.

To reach the population in a timely manner, it is imperative that community organizations and volunteers take responsibility for community education efforts.

In the future, education efforts should emphasize the negative impact that *loose dogs* have on the community (to encourage residents to restrain or confine their dogs). The community should also be educated on ways to avoid dog bites (including proper handling of pets and appropriate responses to *loose dogs*).

The goals of the education program should be to reduce the number of *loose dogs* on streets and increase community awareness of how to interact with dogs in a safe manner. There will not be any costs associated with this effort based on the assumption that the community will execute these responsibilities.

¹⁹ This was determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits.

²⁰ CARE team data from April – July 2016.

²¹ Pets for Life in southern Dallas suggests two touches per household.

2.4 The city of Dallas should make animal-related citations more effective

Rationale: If used effectively, citations encourage compliance with local animal ordinances. As one manager of animal services in a benchmark city claimed, “There is never a silver bullet, but our ‘animal-citation’ program is the best thing we have done.”^{xliii} In order to ensure that citations are effective, they need to be easily issued and appropriately followed through.

Today, there are two types of animal citations: criminal and civil. *Criminal citations* can result in jail or warrants, while civil can result in a collection agency and bad credit.

Today, it is difficult to issue citations in Dallas, whether criminal or civil, for several reasons.

First, ASOs spend the majority of their time responding to 311 requests, and therefore have limited opportunity to patrol areas and proactively issue citations. 311 calls infrequently result in a citation because by the time an ASO arrives at the specified address, there are no people or dogs to be found—and an ASO must witness a violation in order to issue a citation.^{xliiii} If a citizen reports a dog confined in a car, for example, an ASO cannot issue a citation unless he or she witnesses the confined dog.

Second, appearing in court to defend *criminal citations* is time consuming (98% of all citations issued are *criminal citations*). On average, each officer spends one entire day each month in court, during which he or she could be responding to 311 calls or proactively patrolling a given neighborhood.^{xliiv}

Third, issuing *civil citations* takes a large amount of time. In 2012, DAS helped to initiate the change to allow ASOs to write *civil citations*, in part because *civil citations* do not require an ASO to attend court hearings. In order to issue a *civil citation*, an ASO must have a concrete court date to write on the citation, which can only be generated by the *docket*. Because the *docket* is shared by the entire Department of Code Compliance and can only be accessed by one person at a time, it can take more than an hour to receive a court date and complete a *civil citation*. As one DAS supervisor commented, “A few weeks ago, I was on the phone with an officer for two hours while I tried to enter the *docket*.”

Aside from the inefficiencies in giving citations, there are also issues with follow through. When citations are issued, they are rarely paid. Only 38% of all fines were paid in 2015. Most defendants simply do not respond to citations; 44% of all citations issued in 2015 were stuck in “initial arraignment,”^{xliiv} meaning the defendant did not respond to the citation.

While BCG did not have the necessary information to assess the number of repeat offenders, we support the execution of warrants against defendants with the highest number of outstanding citations.

To improve the process of issuing citations, the city of Dallas can take action in three areas.

- Increase the amount of time that officers patrol neighborhoods to issue citations more proactively
- Transition from issuing *criminal citations* to *civil citations* to minimize ASO time spent in court. In 2016, DAS ASOs started to implement *civil citations* more regularly

although still as a small percentage of total issued citations.

- Invest in IT to create one *docket* for animal services, thereby minimizing the time needed to issue a citation (as of the writing of this report, DAS reported that they had initiated this change)

We also recommend the city of Dallas consider changing the citation court process to increase compliance with city animal ordinances and increase responsiveness to citations. Potential suggestions include:

- Including fines in a resident's water bill
- Creating a dedicated animal court (as in San Antonio)
- Actively issuing warrants when fines go unpaid

We have not estimated a cost for these potential changes, but the primary cost drivers would be system enhancements to revise the *docket* and additional time spent by marshals and court personnel.

2.5. DAS should share loose dog service requests with organizations that actively capture loose dogs

Rationale: DAS receives ~48,000 311 requests yearly, ~12,000 (24%) of which are loose dog calls that are not dispatched to ASOs.^{xlvi}

At the same time, multiple private street rescue teams exist in Dallas, which based on BCG's Rescue and Animal Organization survey, rescued a reported ~6,000 dogs directly from the street in 2015.

We recommend that DAS share information about non-dispatched loose dog calls in real-time with street rescue organizations to augment DAS's field staff. This communication could be automated with a description of the dog, its location, and when it was last seen.

It should be noted that a clear memorandum of understanding would likely be necessary with these organizations and that all captured animals should be brought to DAS for the stray hold period.

Given volume of ~30 non-dispatched calls per day, this communication could be managed by DAS employees (e.g., field dispatch) until an automated solution is put in place. Accordingly, this initiative will incur no additional costs in the immediate future. We have not sized this opportunity which would be impacted by partner participation, speed of responding to loose dog sightings, and success rate of catching dogs. Implementing this recommendation would require a change in DAS's technological capabilities and its current approach on active disclosure of data to the public, which we address in recommendation 5.1 below.

Recommendation 3 – Increase the number of positive outcomes for Dallas dogs, euthanizing only the sickest animals

DAS collects dogs daily through its field operations and, because it is an *open admission* shelter, must also accept every dog that residents of Dallas bring to its shelter. If all dog kennels are in use, DAS is forced to euthanize dogs in order to make space for new dogs that enter the shelter each day.²²

By speeding up dog adoptions and *transfers* (e.g., reducing the average length of stay), DAS can free up kennel space and reduce its euthanasia rates.

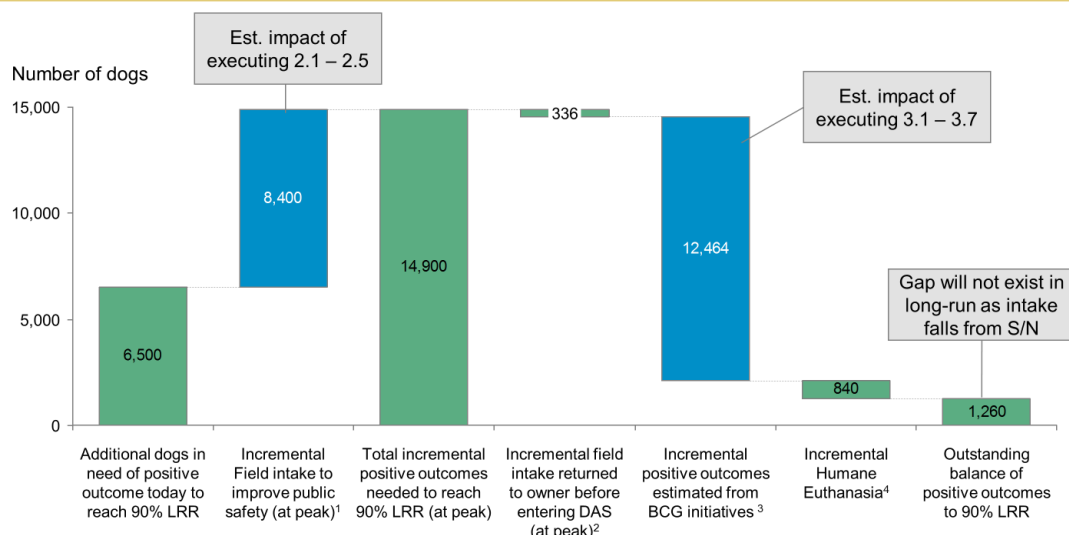
The following initiatives will place thousands of dogs into positive outcomes and continue to increase DAS's *live release rate* for dogs which has already grown from ~30% in 2011 to ~60% in 2015.

These initiatives play a critical role in offsetting any temporary spike in field *intake* (recommendation 2) until a successful spay and neuter program (recommendation 4) results in lower *intake*.

²² The same is true of cats and other animals. It should be noted, however, that dog and cat kennels are not typically interchangeable.

Exhibit 26| Impact of recommendations on DAS’s positive outcomes

Illustrative based on data from 2015



1. Hiring additional ASOs expected to take several months. Increasing intake per ASO will be ongoing process where first improvements is not expected for > 6 months. Field intake likely to decline in 2-3 years once loose dog population under better control, decreasing need for additional positive outcomes.; 2. Assume that 4% of all incremental collected dogs are returned to owner in the field as they were in 2015; 3. Timeline for implementing recommendations to increase number of positive outcomes expected to be faster than timeline for increasing field intake.; 4. Assume 10% of incremental field intake is humanely euthanized
 Note: This includes the higher estimate of the ranges on recommendations 3.4 and 3.6
 Source: BCG analysis

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3.1 DAS should enhance its digital marketing for both adoptions and transfers

Rationale: Digital marketing is an important tool that can be used by shelters to increase adoptions and *transfers*. Marketing materials showcase dogs available for adoption and highlight their unique characteristics. As one director of a successful city shelter commented, "All principles of retail marketing apply to adoptions."

Effective marketing, especially online pet profiles (photographs and descriptions of dogs), can significantly impact outcomes. One study found that high-quality online profiles can increase speed to adoption by ~40% compared to animals that have low-quality pictures or descriptions.^{xlvi} Another study found that high-quality photos alone can lead to a ~63% decrease in the median days to adoption for a shelter dog.^{xlvi}

DAS currently underutilizes digital marketing in two ways.

- DAS’s online content is not at its maximum scale or potential. Many pet profiles have poor photos (or missing photos) and do not include unique descriptions for each dog.

- DAS does not fully take advantage of external websites that can expose rescue organizations and adopters to its dogs, including *Petfinder*, *Pet Harbor*, and Facebook. Currently, not all dogs are searchable on *Petfinder* and only ~10%^{xlix} of dogs are posted to the Dallas Dogs In Need of *Transfer* Facebook page, a page maintained by a DAS volunteer. In addition, DAS's website does not feature pet profiles.

We recommend DAS feature high-quality photographs and unique descriptions in its pet profiles and make better use of complementary websites.

By improving its pet profiles (especially by taking good photographs and posting them on more websites), DAS has the potential to increase positive outcomes by ~3,200 assuming that improved profiles increase positive outcomes by 20%^l and dogs posted to Facebook have an LRR 28% higher than those that aren't.

To achieve this aggregate ~3,200 positive outcomes, a ~\$60,000 initial investment is necessary for an IT system upgrade. Anecdotally, the internet and computers at DAS are prohibitively slow. An additional ~\$338,000 in recurring costs will also be required to cover:

- Additional spay and neuter surgeries and vaccinations (all adopted dogs receive spay and neuter surgery and vaccinations) at \$96 per adopted dog (~\$192,000)²³
- The ~2.8 employees needed to create pet profiles by taking good photographs, writing good descriptions, and posting them to the necessary websites (~\$101,000)²⁴
- The two staff that will give additional customer service to adopters as they visit the kennels (~\$42,000)²⁵
- The equipment needed to improve dog profiles, such as cameras and laptops (~\$4,000)

3.2 DAS should increase adoption footprint

DAS should tailor its adoption program to meet consumer needs and preferences. Accordingly, DAS should ensure that its locations and hours of operation provide sufficient adoption opportunities within the community.

There are several opportunities for DAS to enhance its retail effectiveness.

²³ The \$96 includes \$28 for veterinary labor and \$68 for consumables, such as supplies. The cost to DAS for a spay/neuter surgery will differ from the cost needed to provide a low-cost spay/neuter surgery to the community.

²⁴ This was determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits.

²⁵ This was determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits.

3.2.1 Expanding its retail presence via an additional adoption location

Rationale: Today, in partnership with PetSmart Charities, DAS manages an “Everyday Adoption Center” (EAC), a retail store located in a North Dallas PetSmart. This facility has 18 kennels available for dog adoption (compared with 118 kennels at the main DAS facility in Westmoreland).ⁱⁱ Though it is just 15% of the size, the EAC is responsible for 25%ⁱⁱⁱ of all DAS adoptions.

There are many reasons why the EAC is successful. The EAC facility was purposefully designed for retail adoption by a leading national retailer, and it features spacious open kennels, multiple viewing areas, and a socialization room for potential adopters to connect with dogs. The EAC site is also located in northern Dallasⁱⁱⁱⁱ—an area that needs to “import” dogs due to higher levels of spay and neuter surgeries and lower in-community birth rates.

Expanding DAS’s retail presence by opening another adoption location, in partnership with PetSmart or another organization, could significantly boost DAS’s adoption rate.

Because a new adoption location may not be as effective as the current EAC facility (which facilitates 1,736 dog adoptions per year),^{liv} we conservatively estimated 75% of current volume. Even at 75% of current performance, a new adoption location could result in a projected ~1,300 dog adoptions per year.

Assuming the existing partnership through DAS and PetSmart Charities could be replicated either with a PetSmart or another retail partner, the cost of operating an additional adoption facility would average ~\$425,000 per year. This cost includes labor necessary for operation, as well as \$96^{26,lv} cost to prepare each of the 1,300 dogs for adoption (e.g., spay and neuter surgery and vaccines). The construction costs of the additional facility would be incurred by a retail partner, as is in line with the cost structure of the current EAC site.

3.2.2 Expanding its retail presence via extended adoption hours

Rationale: DAS currently operates its Westmoreland Adoption Center for 50 hours each week, Monday through Saturday, 11:00am - 6:30pm, and Sunday 12:00pm - 5:00pm. In 2015, DAS facilitated 6,406 animal adoptions with these hours of operation.^{lvi,27}

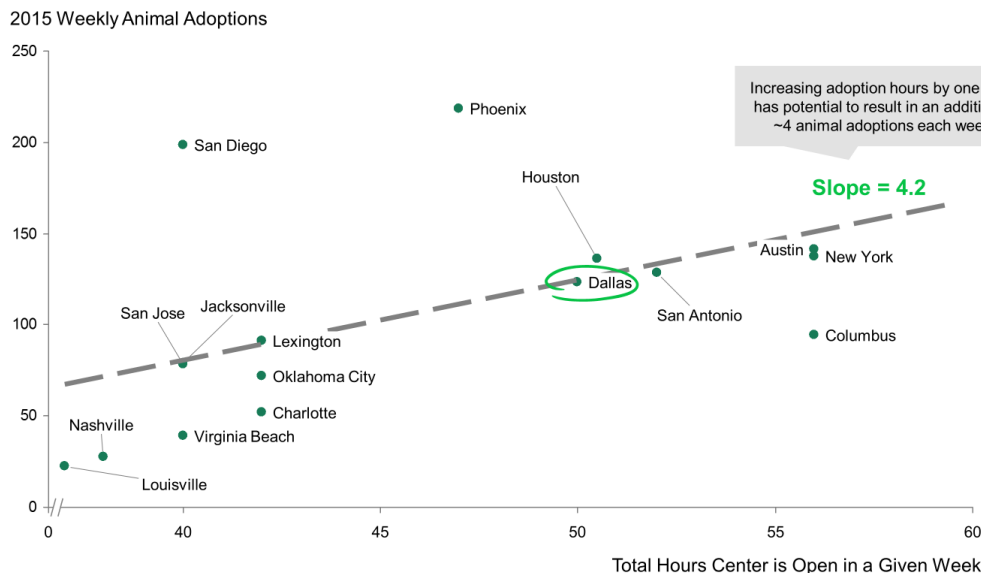
Through analysis of the adoption hours and adoption volume of other animal services agencies across the US, we found that approximately four animals are adopted for each additional hour that an adoption center is open.²⁸

²⁶ The \$96 includes \$28 for veterinary labor and \$68 for consumables, such as supplies.

²⁷ Excluding adoptions from the EAC facility.

²⁸ This analysis included a regression of adoption hours on animals adopted from other animal service agencies.

Exhibit 27 | Adoption hours vs. weekly animal adoptions



1. Statistic from Chameleon Database
 2. Conservatively estimate that some hours of day are less productive for adoptions (morning and night hours)
 Source: DAS Chameleon database, Shelter websites, BCG analysis

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Based on this analysis, DAS could realize an additional ~520 dog adoptions each year by keeping the adoption center open for an additional 12 hours each week (an additional 2 hours each day). This analysis conservatively assumes that the additional hours of operation would only be 25% as productive as the four dogs per hour average, which means one dog would be adopted for every extra hour that DAS stays open.

By extending the adoption center’s operating hours, DAS would incur a cost of ~\$81,000 per year, due to increased labor cost of four hourly-employees to cover the adoption desk and help adopters visit the kennels, as well as the cost for spay and neuter surgeries and vetting for incremental dogs adopted (\$96^{29,lvii}).

²⁹ The \$96 includes \$28 for veterinary labor and \$68 for consumables, such as supplies.

3.3 DAS should increase volume through its *transfer* program

Rescue organizations are vital partners for a city shelter to maintain a high LRR. In many cities, shelters depend on rescue organizations, or transfer partners, to place a considerable amount of dogs into new homes. As one director of animal services advised, “befriend rescue groups. You have to make them your partners.” DAS can better leverage the resources and capacity of rescue partners to *transfer* more dogs and increase LRR rates.

Both DAS *transfer* records from *Chameleon* and BCG's Rescue and Animal Organization Survey confirm the rescue organization landscape is concentrated in Dallas. For example, 10 partners were responsible for 70% of all DAS *transfers* in 2015 while 100+ were responsible for the remaining 30%. In the greater Dallas-Fort Worth area, three large rescue organizations are responsible for the majority of dog *intake*, but these same organizations only pull 2% of their dogs from DAS. Refer to Exhibits 13 and 21 for more detail.

The following initiatives identify opportunities to enhance *transfer* partnerships and better leverage the capacity that they have to offer, especially the capacity of the larger partners

3.3.1 Establishing a "*transfer-on-intake*" program with a single high-volume partner

Rationale: In benchmark interviews with other cities, a key success factor needed to increase LRR was a high-volume rescue partner. As one animal services agency director commented, “We would never have the same [LRR] rate that we do if it weren’t for our rescue partners.”

In addition, many municipal shelters have found that immediately *transferring* animals on *intake* to a partner helps to ensure that adoptable animals remain healthy, while also freeing up capacity. One large *transfer* said, “We would prefer to have the animals before they ever have to enter a municipal shelter.”

Such immediate *transfers* have a drastic impact on average length of stay, reducing it to zero days for the affected population of dogs.

Therefore, the potential exists for DAS to develop its own "*transfer-on-intake*" program with a high-volume partner. This partner would commit to pulling a minimum number of dogs annually (e.g., 1,000 – 3,000). In return, the partner would typically be allowed to tag and immediately pull any dog it chooses, before the dog technically enters the DAS shelter. The legal hold would still apply to these dogs, as 10% of all DAS dogs are eventually returned to their owner (40% of all microchipped *loose dogs* are returned and 6% of unchipped *loose dogs* are returned). The partner's shelters would coordinate with DAS to track legal holds and circulate the location of dogs in the event that an owner is looking for his or her dog. Each dog can still be photographed on *intake* and uploaded into the *Chameleon* database, making it easier for owners to locate lost pets. Finally, such rapid *transfers* would typically qualify as an *intake* and *transfer*, benefiting any LRR reporting by DAS.

By developing a "*transfer-on-intake*" program with a high-volume partner, DAS could *transfer*

an additional ~1,000 dogs per year before the dogs enter the DAS shelter, while still contributing positively to DAS's LRR. This estimate is based on existing partnerships across comparable cities.

This program could be established at no additional cost to DAS. There would be minimal work added to the *transfer's* current responsibilities (e.g., communicating with large *transfers*). The cost of transportation to the partner's shelter is typically incurred by the *transfer*.

3.3.2 Segmenting *transfers* by size and support

Rationale: While rescue organizations have an altruistic mission, the number of animals they take from a given shelter and the number of animals they subsequently place in homes can be increased through proper management of these partnerships. Relationships between the rescue organizations (also referred to as *transfers*) and DAS are managed by DAS's *transfer*.

Today, 90% of the *transfer's* day is spent answering questions from *transfers* about dogs, or tagging and pulling dogs on behalf of partners.^{lviii} As a result, there is little time to proactively cultivate relationships with partners.

According to respondents from the Rescue and Animal Organization Survey, DAS has already established solid relationships with *transfers*. 67% of survey respondents agreed that DAS is "helpful and supportive of their work," and multiple respondents pointed to the *transfer* as someone who is "amazing" and "good to work with."

However, there is still room for improvement. Although 50% of rescue partners "strongly agree" or "agree" that they are satisfied with DAS, 26% "strongly disagree" or "disagree." Improved relationships between DAS and its *transfers* has a tangible benefit in that the most satisfied partners pull a larger percentage of dogs from DAS (versus other city shelters).^{lix} If DAS can better support its *transfers* and increase satisfaction, it can increase the number of dogs *transferred*.

To increase satisfaction, DAS should first hire an additional *transfer* who is responsible for proactive relationship management. This coordinator should focus at least half of his or her time on developing relationships and addressing the needs of the ~15 largest partners as they have the potential to pull the majority of DAS *transfers*. The relationships with larger partners will require the *transfer* to tailor DAS services to each partner's individual needs (e.g., expediting their pulling process, answering questions on dogs immediately).

The additional *transfer* should spend the remaining time developing relationships with the 100+ small partners and addressing common needs. Rather than tailor services to each partner, DAS can improve these relationships overall by streamlining processes and holding monthly meetings where all partners can be heard.

One change in particular that can streamline communication with smaller *transfers* is

automating tagging. Today, a *transfer* can tag, or claim, a dog by directly emailing the DAS *transfer*. The coordinator checks whether the dog is still at the shelter, alerts the adoption desk, and ensures that the dog is entered in *Chameleon*. The process of tagging and pulling dogs takes up ~50% of the *transfer's* time today. It's time consuming and also more likely for human error. Mistakes and inefficiencies in the tagging process can undermine relations with *transfers* and with the public. If an email is missed, or a tag is entered incorrectly, a dog may be euthanized before the mistake is discovered.

DAS can automate the tag by enabling *transfers* to tag immediately and online through the *Chameleon* database. This would eliminate error, eliminate *transfer* time spent on manual tasks, and increase satisfaction of *transfers*. 44% of all respondents from the Rescue and Animal Organization Survey said they would be more likely to *transfer* dogs from DAS if the process for tagging/reserving dogs was improved.

If DAS can better support its *transfers*, it will increase partner satisfaction and increase the number of dogs *transferred* from DAS by an estimated 570 each year. An additional *transfer* will be necessary to build these relationships and will require approximately \$51,000^{lx} in annual salary. There is not an incremental spray and neuter cost associated with *transfers*.

3.4 DAS should establish a pet transport program to facilitate out-of-state adoptions

Rationale: Pet transport, the process of transporting pets from one city to another, connects adopters in areas with a dearth of animals (many northern cities) with shelters in areas with excess animals (many southern cities like Dallas). Roughly 12,000-14,000 dogs and cats are transported by major pet transport companies each year,^{lxi} primarily through ground transportation (e.g., trucks, cars, vans).

Today, DAS does not operate a systematic out-of-state transport program; however, their peers do participate in pet transport programs. The Houston BARC foundation, for example, partners with a Houston nonprofit to transport pets each week from Houston to Colorado. BARC's initial agreement was to transport at least 50 animals to Colorado each week (~2,500 annually).^{lxii} Miami Animal Services also operates an out-of-state pet transport program, transporting nearly 20 animals out-of-state every week (~1,000 annually).

Establishing an out-of-state dog transport program would require DAS to hire one additional program supervisor focused on transport coordination. It would also require DAS to either establish, or partner with, a foster home network in the Dallas area. The foster network is a necessary program requirement because interstate pet transport regulations dictate that dogs must have a two-week stay out of the shelter prior to transport.

By developing a structured transport program, DAS can achieve an additional ~900-2,000 adoptions each year. The impact of the transport program depends upon the scale of the foster network. An established network of ~100 foster homes, each fostering one dog at a time

with two-week turnover throughout the year (20 “turns” each year) would support up to ~2,000 transported dogs. However, a less robust network of 60 fosters, each fostering two dogs at a time and participating in 15 “turns” throughout the year, would support a more conservative ~900 transported dogs.

A structured transport program would cost approximately \$156,000 - \$285,000 each year. This includes the cost of hiring an additional transport coordinator (approximately \$51,000 salary),³⁰ two weeks of dog food during foster care (~\$21 for total cost of ~\$19,000 - \$42,000),³¹ and incremental medical costs associated with spay and neuter surgeries and vetting for adopted dogs (~\$96 each for a total of ~\$86,000 - \$192,000).^{32, lxiii} As is common in other cities, volunteers can be used to help the transport coordinator manage program logistics.

3.5 DAS should deflect *owner surrenders* through owner assistance programs

Rationale: Deflection programs, such as the ASPCA’s “Project Safety Net,” encourage owners to keep their dogs instead of surrendering them to the shelter. This keeps dogs from ever entering the shelter, freeing kennel capacity. Given that DAS has a limited number of dog kennels, there is a direct correlation between kennel capacity and euthanasia rates.

In a survey of owners surrendering their pets to DAS, the most common reasons for surrendering an animal were: not having a yard suitable for a dog (24%), lack of time to care for a dog (24%), and not having enough money to care for a dog (21%).^{lxiv} A deflection program can provide support to Dallas dog owners, enabling them to keep their animals, reduce the strain on the shelter *intake* system, and increase the overall rate of positive dog outcomes.

Survey responses also revealed that approximately 37% of all surrendered dogs could be deflected if owner aid were available.^{lxv} Specifically, 12% of owners would keep their dog if provided with resources for a temporary home for their pet, 9% would keep their dog if provided resources to cover routine veterinary care costs, 7% would keep their dog if provided with pet behavior training, and 5% would keep their dog if provided with support for a dog run or fence.

Based on the statements of Dallas residents responding to the survey, a program to support owners has the potential to keep up to ~2,600 dogs from entering the shelter each year (based on 2015 volume). The cost of instituting a surrender deflection program is expected to be ~\$26,000^{lxvi} per year which includes the salary for an additional 0.5 DAS employee to coordinate the program and connect owners with community resources.

It is assumed that assistance with resources, such as dog runs, pet food, or veterinary care, can

³⁰This was determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer and then applying an extra 20% to that salary to account for benefits

³¹ By comparison, caring for a dog at DAS costs ~\$15/day and takes up kennel space, which can contribute to euthanasia when space for new animals is unavailable.

³² The \$96 includes \$28 for veterinary labor and \$68 for consumables, such as supplies.

be provided by existing animal welfare organizations already providing these services to the community. For example, an owner intending to surrender a dog due to the price of dog food could be directed to the North Texas Pet Food Pantry, which offers dog food to those in need.

3.6 DAS should provide enhanced behavior training to increase adoptability of dogs

Rationale: Studies show dogs that receive behavior training are 1.4 times more likely to be adopted than dogs that do not.^{33, lxvii} DAS does not currently have a dog behavior program.

There is an opportunity for DAS to institute behavior training courses for a subset of its dog population in order to increase adoption volume. Based on interviews with other shelters and senior DAS management, we recommend that DAS consider both treatable-rehabilitatable (TR) and treatable-manageable (TM) dogs as candidates for these programs. Based on 2015 numbers, this would amount to approximately 15,400 dogs eligible for behavior training.

Providing behavior training to 15,400 dogs would result in 700-1,300 additional dogs adopted each year. According to *Chameleon* records, behavior was cited as the reason for euthanasia in 50% of euthanized TR and TM dogs.³⁴ We also assume that training courses would make these dogs 1.4 times more likely to be adopted. Dogs will start training immediately in the shelter. Once they are adopted out, they will be given vouchers to continue their training.

Providing behavior training to this group of ~15,400 TR and TM dogs would incur a cost of ~\$392,000 - \$770,000 each year. The cost of providing behavior training classes to all TR and TM dogs at DAS would range from ~\$21 - \$42 per dog. The cost for spay and neuter surgeries and vetting for 700-1300 additional dogs would be ~\$96 per dog.^{35, lxviii} Behavior training would comprise ~75% of the total cost to implement.

3.7 DAS should hire one veterinarian and two vet techs to perform spay and neuter surgeries and vaccinations to support the increase in dog adoptions

Rationale: DAS is legally required to spay and neuter and vaccinate all of its dogs adopted by the public, and recommendation 3 will lead to a substantial increase in adoptions (up to ~7,100). To keep up with demand, DAS will need to hire an additional veterinarian and two

³³ As stated in "The Effects of Training and Environmental Alterations on Adoption Success of Shelter Dogs," there is a 77% adoption rate for trained dogs vs. 56% adoption rate for untrained dogs.

³⁵ The \$96 includes \$28 for veterinary labor and \$68 for consumables, such as supplies.

veterinary technicians to perform these surgeries each year.

Assuming this team can perform at maximum ~8,000 surgeries each year, the total cost would be \$200,000, with the veterinarian receiving a salary of \$100,000 and each veterinary technician receiving a salary of \$50,000.^{lxix}

These labor costs (\$28 per surgery³⁶), along with consumable costs (\$68 per surgery), have been allocated to the individual initiatives to cover all incremental spay and neuter surgeries and vetting required in recommendation 3 (\$96 per surgery).

³⁶ Recommendation 3 will result in an additional ~7,100 dog adoptions. We allocated a \$200,000 salary to cover these 7,100 surgeries, which amounts to approximately \$28 per surgery.

Recommendation 4 – Provide 46,000 low-cost spay and neuter surgeries in southern Dallas each year for next three years

Population control is critical to achieve a long-term, sustainable solution for the city of Dallas, where today approximately 36,000 puppies are born annually. In cities that have achieved high spay and neuter levels, shelter *intake* tends to fall over time, reducing shelter utilization and increasing the LRR. Population control also serves to protect public safety, given that intact male dogs account for 70 - 75% of bites.^{lxx lxxi}

4.1 The Dallas community should provide 46,000 low-cost spay and neuter surgeries in southern Dallas for each of the next three years

Rationale: Today, only ~15% of dogs in southern Dallas are believed to be spayed or neutered.^{lxxii} With such low spay and neuter levels, and dogs' ability to reproduce quickly, the southern Dallas dog population could, in theory, double to ~300,000 dogs over the next 10 years if no other intervention occurred.

Some of the largest consumer barriers to spay and neuter surgeries are price^{lxxiii} and access. Today, ~40% of southern Dallas residents live in poverty,³⁷ and the average ~\$150 cost of spaying or neutering a pet would likely strain a family's finances. Similarly, ~74% of pets in southern Dallas have never gone to a veterinarian for a check-up or treatment.^{lxxiv}

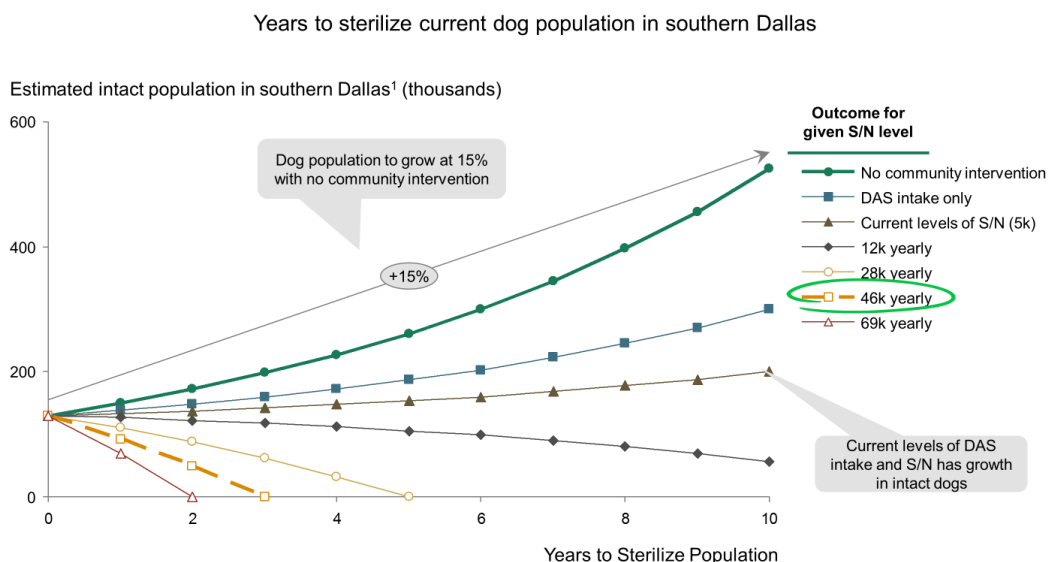
To overcome low spay and neuter levels, a series of non-profits in Dallas have delivered ~6,000 low-cost spay and neuter surgeries annually within southern Dallas over the past few years. These organizations include DAS, the Spay Neuter Network, the Dallas Companion Animal Project, Pets for Life, the SPCA, and were funded, in part, by the Big Fix for Big D. Separately, DAS has delivered an incremental ~3,500 free spay and neuter surgeries annually through the adopted dogs it has placed into southern Dallas.^{lxxv}

Because "access" or "convenience" is a typical barrier to having one's pet spayed or neutered, these organizations have used both brick-and-mortar locations (where transport is provided) as well as mobile units.

Based on BCG projections, the historical volume of low-cost spay and neuter surgeries deployed has slowed the population growth of intact dogs in Dallas, but the dog population is still rising each year. To control the dog population in southern Dallas, it will require a surge effort of 46,000 low-cost spay and neuter surgeries each year for the next three years (equivalent to 35 surgeries per thousand residents).

³⁷ We used asset poverty as a proxy for the poverty line, which is when families cannot support their households at poverty level for three months if they lose their income.

Exhibit 28| Southern Dallas needs a surge of 46,000 low-cost spay/neuter surgeries each year for three years



Note: DAS intake and current levels of spay and neuter are consistent. See compendium for more detailed assumptions and sources
 Source: AVMA, ASPCA, American Kennel Club, Pets for Life Canine Perinatal Mortality Study 2012, Birth and Death Rate Estimates of Cats and Dogs 2004, PetMD, Development of a Model for Estimating the Size and Dynamics of Pet Dog Population 1994, BCG analysis

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Other cities that have been successful in high-volume spay and neuter programs include San Antonio, Texas, with 58,000 surgeries yearly (41 surgeries per thousand residents) and Jacksonville, Florida, with 39,000 surgeries yearly (46 surgeries per thousand residents).

To succeed with a high-volume spay and neuter campaign, DAS must collaborate with community partners, provide door-to-door marketing in targeted neighborhoods, ensure compliance with ordinances, and provide access to staff that specializes in high-volume spay and neuter surgery.

The overall cost of executing 46,000 spay and neuter surgeries annually is ~\$7.5 million, or ~\$160-\$168 per surgery depending on if it is through brick and mortar or a mobile van.

This amount could be reduced by an estimated ~\$900,000 to a total of \$6.6 million by requiring means testing, where people who can afford spay and neuter surgery pay a partial fee for the procedure.³⁸ Medicaid or other government assistance cards can be used as the primary method for Dallas residents to qualify for funding. The risk in requiring means testing is a lower participation rate.

³⁸ This assumes a cost of \$30 per surgery, if the resident is above poverty level.

The cost of the program could also be reduced by an additional estimated \$2 million to a total of ~\$4.6 million by using salaried veterinarians vs. a pay-per-surgery fee structure on top of means testing, if available in the area. A pay-per-surgery approach can be expedient, given the limited supply of high-quality and high-speed surgeons available to provide such programs.

4.2 Animal welfare organizations in Dallas should coordinate spay and neuter efforts

Rationale: Today, no single organization in Dallas is capable of delivering 46,000 spay and neuter surgeries annually. To successfully deliver these surgeries, organizations across the community will need to divide the workload by agreeing to individual targets, coordinating delivery across the city as part of an integrated plan, and sharing data to track progress and prioritize efforts.


To begin this process, interested organizations should hold a summit to determine the gaps between what exists today and what is needed to deliver 46,000 surgeries. Armed with this information, these organizations should form a coalition with a common brand, mission, and a well-defined operating agreement or memorandum of understanding, including a detailed account of individual commitments to deliver a specific number of spay and neuter surgeries.

Next, this coalition should agree on an initial set of zip codes³⁹ to target, defining clear goals, end points and a schedule or timelines to achieve these. Having this set of goals, end points, and a well-defined timeline will give funders the confidence they need to provide any missing resources.

As a starting point, BCG recommends delivering the following number of surgeries in these southern Dallas zip codes.

³⁹ In place of zip codes, the coalition could also focus on census tracts or any other means of subdividing Dallas into discrete plots of land.

Exhibit 29| Dallas spay and neuter targets by zip Code

 Big Fix for Big D Zip Code

Zip code	Y1 Intact (%) ¹	Y1 Estimated Dogs ²	Y1 Intact Population	Y1 Target S/N Surgeries	Y2 Target Intact Population	Y2 Intact (%)
75211	80	18,732	14,954	4,191	11,557	59
75212	84	6,456	5,412	1,395	3,846	60
75216	86	15,400	13,250	3,602	9,934	64
75217	88	19,439	17,050	4,686	12,922	65
75224	82	9,090	7,472	2,111	5,821	61
75227	86	15,516	13,320	3,813	10,514	64
75228	78	21,768	16,934	5,002	13,795	59
75241	87	9,401	8,211	2,318	6,391	65
75116	85	6,041	5,135	1,569	4,327	64
75134	85	6,464	5,494	1,680	4,634	64
75180	85	6,978	5,932	1,811	4,994	64
75203	81	5,556	4,528	1,264	3,487	60
75207	85	695	591	174	479	64
75208	78	9,175	7,201	2,052	5,658	59
75210	85	2,654	2,256	629	1,735	63
75223	83	3,954	3,274	913	2,518	61
75226	85	1,958	1,664	500	1,378	64
75232	86	9,025	7,722	2,197	6,058	64
75233	81	4,451	3,622	1,024	2,824	61
75236	81	4,239	3,413	997	2,748	60
75237	77	7,131	5,480	1,625	4,480	59
75249	76	4,625	3,520	1,040	2,869	58
75253	90	5,629	5,048	1,408	3,882	67
Total	83	194,378	161,481	46,000	126,852	62

1. Intact population in southern Dallas estimated from S/N status of DAS intake within zip. If intake in a given zip code was < 50 dogs, intact population assumed to be 85% of total dog population
 2. Dogs per household is average of AVMA (0.583 dogs/HH) and Pets for Life (1.182 dogs/HH) ownership rates
 Note: See Compendium for more details
 Source: Experian Current Year Estimates (Q2 2015), AVMA, Birth and Death Rate Estimates of Cats and Dogs 2004, ASPCA, Canine Perinatal Mortality Study 2012, DAS Chameleon database, Development of a Model for Estimating the Size and Dynamics of Pet Dog Population 1994, BFBD, SNN, SPCA, DAS, DCAP, PFL; BCG analysis

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To deliver the required number of surgeries, coalition members will need to engage in extensive door-to-door canvassing to promote upcoming spay and neuter clinics and identify potential community advocates or leaders.

One effective approach is to develop and scale a program similar to San Antonio’s Comprehensive Neighborhood Sweeps Initiative. As part of this program, a new targeted neighborhood would be selected each month in a designated zip code. A team of trained volunteers would attempt to speak with each neighborhood resident on two occasions about the importance and availability of low-cost spay and neuter surgeries. Volunteers could also be supported by the DAS CARE team who would supplement education with enforcement.

While the DAS Care team has already begun this work, door-to-door canvassing is very time-intensive and will therefore require a much larger force of volunteers; at its present pace, it

will take ~17 years for the four-person CARE team to effectively reach each household twice in southern Dallas.⁴⁰

During canvassing, detailed data should be collected on a household basis to prioritize follow-up visits. This might include the address, dog ownership, spay or neuter status, historical litters, loose dog sightings, etc. Today, multiple organizations that perform door-to-door outreach already collect this information; however, collection should be standardized and shared across organizations to improve the efficiency of follow-up outreach.

Target neighborhoods within the designated zip code should be canvassed until the coalition achieves its objectives (e.g., by delivering surgeries or increasing spay and neuter levels). Once these objectives have been achieved, the coalition should select a new zip code and begin the effort again.

During this process, zip codes should be constantly reprioritized based on any and all available data, and community advocates should be engaged to ensure that any continuing needs for spay and neuter surgeries in these neighborhoods are met.

4.3 The city of Dallas should establish elementary school education programs related to pet ownership

Rationale: Changing fundamental cultural habits can take an entire generation or more, as has been seen with recycling and seatbelt use.

Today, Dallas has no education programs to teach children about responsible pet ownership, which makes it unlikely that tomorrow's pet owners will behave differently in the future.

Conversely, other US cities have been successful in implementing school-based animal education programs targeted at young children. Santa Fe, New Mexico, for example, is home to one of the nation's leading animal education programs. Animal Protection of New Mexico (APNM) and Santa Fe Public Schools jointly developed a program called "The Animal Connection" in order to deliver animal education in schools. Started in 2011, this program delivers expert instruction in animal care and instills positive behaviors around pet ownership to elementary school children.^{lxxxvi} The instruction is delivered by dedicated teachers, with assistance from APNM ASOs and shelter animals, and it engages students through both interactive exercises and fact-based discussions.

Dallas has the opportunity to develop its own animal education program focused on children enrolled in Pre-K through 8th grade. Rather than developing its own curriculum, the Dallas Independent School District (DISD) could leverage existing curriculum from New Mexico. In addition to providing education to students and preparing the next generation of responsible

⁴⁰ There are 173,598 households in southern Dallas and Pets for Life suggests two touches per household are required before a resident agrees to spay or neuter an intact animal. This assumes the CARE team visits approximately 105 houses per month (which was the average for CARE teams between April – July 2016).

pet owners, this curriculum could also be used as an opportunity to deliver material to students on low-cost spay and neuter programs that they or their parents could immediately benefit from.

DISD has 152 primary schools⁴¹ with ~118,000 students.^{lxxvii} By hiring six full-time teachers to deliver this program, DISD could reach ~6,000 students each year ensuring each student is able to receive each lesson at least once.

Assuming a fully-loaded salary of \$66,000 for each of the six teachers, the total cost for this program would be \$396,000⁴² per year.⁴³ This recommendation is a long-term option that will require lead time in order to fund, implement, and see results.

4.4 DAS should enforce spay and neuter ordinances in coordination with outreach

Rationale: ASOs can promote spay and neuter outreach to residents that are not in compliance, while enforcing spay and neuter ordinances. Today, ASOs do issue citations regarding spay and neutering, and at the same time, disseminate flyers regarding available low-cost spay and neuter options.

From June 2014 – May 2016, 406 spay and neuter citations were issued and 199 received no response (49%). That equates to one spay and neuter citation being acknowledged every three days. ASOs should more actively enforce spay and neuter ordinances, but also balance their messages by offering support (as is current practice). If a dog owner is not in compliance, ASOs can educate the owner on the mandatory requirement for and the benefits of sterilization, provide the owner with low-cost spay and neuter options, and offer the opportunity for the owner to become compliant within a certain timeframe before issuing a citation.

This approach has been successful in San Antonio’s Comprehensive Neighborhood Sweeps Initiative. The first week of outreach focuses on education. ASOs give warnings to ordinance violators and provide information on how to become compliant. In the second week, free vaccination clinics are provided. In the third week, citations are issued to violators.

⁴¹ Pre K – 8th grade.

⁴² This was determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits.

⁴³ As a point of clarification, this cost would be incremental to the DISD budget and would not be paid for out of the DAS budget.

Recommendation 5 – Create a collaborative community of partners

We believe that Dallas' loose dog and animal welfare challenges cannot be overcome without collaboration across the community.

Today, many organizations operate independently. There is no common plan or a common data set against which Dallas can measure community results. Our interviews highlighted a dissonance and negative dialogue amongst some animal welfare organizations that prohibit groups from collaborating.

We believe that if the city of Dallas is going to address its animal-related challenges, it must unite animal organizations and advocates in a collaborative community that includes increased data sharing, coordination of resources, and a greater level of trust and courtesy across organizations.

Data is critical to measuring impact and progress, evaluating the effectiveness of a given approach, and re-prioritizing future efforts. It can also provide transparency across organizations that create a greater sense of trust, understanding, and proof of value. Coordination of resources will be critical as no single organization in Dallas will be adequate to meet the breadth or scale of these responsibilities independently. And finally, trust will be critical to stay committed to the mission and strengthen organizational relationships.

5.1 DAS should work with CIS and other city departments to provide open access to operating data and automated reporting

Rationale: Data transparency is beneficial to citizens, private organizations, and governments.^{lxxviii} Open data creates trust and collaboration between governments and citizens, promotes greater innovation by providing the data sets necessary for innovation, provides access to critical information, and offers transparency and visibility to the public. Open data policies can provide these same benefits to DAS and its animal welfare community.

Today, DAS does not publish its *Chameleon* database online, beyond a set of monthly reports. As a result, citizens must file Open Record Requests (ORRs) in order to access more detailed DAS data. DAS responds to approximately 160 ORRs per year, some of which are specific to *Chameleon*.⁴⁴ This requires time and effort from DAS in order to organize and respond to the ORRs, and these requests also prove frustrating to citizens who want ready access to DAS data.^{lxxix} In addition to ORRs, residents often reach out to DAS to confirm the status of a specific animal, which requires manual effort on behalf of DAS employees.

By partnering with Communication Information Services (CIS) and other relevant city departments, DAS can open its data to the public by leveraging the existing Dallas Open Data Portal. Precedence for this model exists in other Texas cities. Austin, for example, makes its data available to the public, offering full datasets, standardized tables, and interactive maps.

⁴⁴ This is the projected volume for ORRs in 2016.

By providing open access to its data, DAS would enable residents to directly access the information they need from the online database.

We believe open DAS data is an important tool to engage and promote greater transparency across the entire community.

The DAS database analyst can lead open data implementation. This position is open and funded, though it has not yet been filled. The database analyst would be responsible for making the *Chameleon* data available online, managing the connection between *Chameleon* and CIS, and assisting individuals in working with DAS data.

Because DAS will need a data analyst with experience in SQL and database management, the current budgeted Coordinator II: Data Analyst position at ~\$42,000 is not likely to attract the right level of talent. This position should be elevated to a Manager II: Business position at ~\$67,000⁴⁵ in order to secure the right skill set (requiring a ~\$25,000 increase in salary which translates to a \$30,000 increase in budget, considering benefits).

5.2 The animal welfare community of Dallas should share the workload of the strategic recommendations

Rationale: By coordinating efforts, the community can work together to tackle the strategic recommendations and reach its goals more quickly (especially for spay and neuter initiatives).

There are over 150 animal-related organizations in and around Dallas. These organizations range from low-cost spay and neuter clinics to foster organizations that temporarily house animals until they can be adopted, among many other functions. While each of these organizations does valuable work, there is significant overlap and a lack of coordination. Resources are not strategically orchestrated, where better coordination could increase efficacy.

In the words of one animal control department manager in a benchmark city, "The shelter didn't create the problem. It was created to fix the problem, but it can't do it alone." The director of a large animal nonprofit agreed: "Collective impact is the key to success." Indeed, collective efforts are often rewarded with temporary funds and grant money. For instance, funding for "Big Fix for Big D" was contingent on the commitment and participation of community partners. Best Friends Animal Society has also given grants to rescue organizations that collaborate with partners.^{lxxx}

To leverage the resources and expertise of existing organizations, Dallas animal welfare organizations should identify common goals and clearly define responsibilities, pledging to a piece of a larger plan. By recognizing specialized strengths and experience, Dallas can increase

⁴⁵ This was determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits.

fundraising success for the overall animal welfare community.

To increase collaboration, we recommend hosting a preliminary workshop that allows organizations to make specific commitments that would be tracked by an overall project manager budgeted for in recommendation 6.3.

5.3 The animal welfare community of Dallas should engage in an inclusive, fact-based dialogue

Rationale: As BCG completed nearly 100 interviews of relevant stakeholders in Dallas, a large portion of interviewees highlighted the existence of opposing factions in Dallas' animal welfare community and a history of public attacks across these groups and towards specific individuals or organizations.

Because we believe that our plan will not be successful without community support and collaboration, we recommend that the community attempt to engage in fact-based and solutions-oriented dialogue. Historically, examples of unproductive discourse can be attributed to many members of the community, including individuals, DAS employees/temps, members of non-profit organizations, and members of the Animal Shelter Commission.

While a cessation of negative opinion and discourse cannot be guaranteed across the public at large, we request the public at large to be solutions-minded and recommend DAS leverage standardized responses and hold its own employees to a higher standard for online conduct.

To demonstrate our perspective, we have identified common situations that have historically produced dialogue that we do not believe to be solution-oriented and serves to erode the relationship between DAS and the community.

Representative context	Alternative (recommended) response
When DAS was accused of being "evil" for euthanizing a dog	"At DAS our goal is to not euthanize any animal that could be placed. We haven't achieved that goal yet, but we are making progress every day through expanded adoptions and <i>transfers</i> . Just like you, we don't like seeing any animals euthanized. To find out how you can help go to [link]"
Regarding DAS euthanizing animals	"When our facilities at DAS are full and we do not have <i>transfers</i> available to take the animals, we have the very difficult responsibility of deciding which animals are euthanized. We do this through a standard and defined process which you can view here [link]. In the future we hope that no animals

	will be euthanized through expanded adoptions and transfers."
Regarding a private individual reporting to have saved many animals	"At DAS we know we can't save every animal. Your actions are helping the animals in our city. Thank you."
Regarding anti-DAS conversations	"Your opinion is important to DAS. We'd like to understand what policies and or procedures we could improve to better serve the community in the future"
Regarding loose dogs in Dallas	"DAS has an obligation to the residents of Dallas. We take your safety seriously and are doing [A, B, C] to address these concerns."

The community, which includes animal welfare advocates, the public, and DAS, can build trust by fostering a fact-based, solutions-oriented dialogue.

DAS should proactively address mistakes or concerns from residents head-on, explain its policies directly (and often), and communicate its achievements (such as its increased adoption rate) as well as its strategic goals. Animal welfare organizations and advocates should reciprocate.

In addition, DAS should refine its social media policy to be similar to that of the Dallas Police Department to ensure that all employees are projecting a similar message, even when speaking under their personal accounts.

The DPD Section 214.04 reads, "Employees are free to express themselves as private citizens on social media sites to the degree that their speech and/or language does not impair working relationships of the Department, impede the performance of their duties, impair discipline and harmony among coworkers, or negatively affect the public perception of the Department."^{lxxxix}

There should be no additional cost to creating an open, fact-based dialogue, as the effort can be led by the social media coordinator or, if DAS becomes an independent municipal department (recommendation 6.1), by an additional communications/public information officer.

Recommendation 6 – Make animal services a priority and strengthen accountability within the city government

The structure of an organization first, defines the environment in which its people and processes are organized and second, defines the individuals that participate in the decision-making process.

With respect to Dallas Animal Services, its organizational structure as a subsidiary of the Department of Code Compliance impacts its visibility (e.g., reduced access to Council), muddles accountability (e.g., more layers of management), and lessens its perceived status (e.g., of lower priority than Code).

Organizational design also encompasses advisory boards, a similar function to today's Animal Shelter Commission. In a typical private or nonprofit landscape, such organizations play an important role in providing both advice and oversight or accountability to the larger organization.

To increase the efficacy of Dallas Animal Services, we recommend several changes to its current organizational structure.

6.1 DAS should move out from under the Department of Code Compliance and become an independent municipal department

Rationale: Today, DAS is a municipal organization underneath the Department of Code Compliance which itself reports into the Assistant City Manager responsible for Dallas's "quality of life" portfolio of departments.⁴⁶

Through the course of BCG's stakeholder interviews, individuals pointed out that DAS's organizational placement within the Department of Code Compliance impacts three areas:

- Resources and Talent
- Communication and Coordination
- Execution and Accountability

⁴⁶ This includes the Department of Code Compliance, Dallas Public Libraries, the Office of Cultural Affairs, and Sanitation.

Exhibit 30| Pros & cons of existing DAS organization structure

	1 Resources and Talent	2 Communication and Coordination	3 Execution and Accountability
Existing structure:	<ul style="list-style-type: none"> ✗ Hiring leadership and staff difficult due to lower profile & complexity 	<ul style="list-style-type: none"> ✗ Lacks a "seat at the table" with Dallas's senior city leadership 	<ul style="list-style-type: none"> ✗ Lower-level leadership role (Sr. Program Manager) lacks authority to operate effectively
Subdivision within a department	<ul style="list-style-type: none"> ✓ Can receive layover funds from parent department 	<ul style="list-style-type: none"> ✗ Perceived to not prioritize animal welfare given placement underneath another organization 	<ul style="list-style-type: none"> ✗ Multiple layers of mgmt cloud accountability

Note: Typically, cities/counties will only privatize their animal shelter operations and operate field collection themselves. See compendium for more detailed assumptions. Source: BCG analysis

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In response to these issues, BCG evaluated four organizational models:

- **Subdivision within a department (status quo):** Dallas Animal Services could make no changes to its existing organizational model and continue to operate within the city's Department of Code Compliance
- **Independent department:** Dallas Animal Services could become an independent department and report directly to an Assistant City Manager
- **Partially privatized:** Dallas Animal Services could privatize its shelter operations while leaving field operations under the Department of Code Compliance or an Assistant City Manager
- **Completely privatized:** Dallas Animal Services could privatize all or part of its operations

We assessed these models against the same three criteria: Resources and Talent, Communication & Coordination, and Execution & Accountability, and identified a mix of

advantages and disadvantages for each model.

Exhibit 31 | Pros & cons of various governance structures

	1 Resources and Talent	2 Communication and Coordination	3 Execution and Accountability
Subdivision within a department	<ul style="list-style-type: none"> ✗ Hiring leadership and staff difficult due to lower profile & complexity ✓ Can receive layover funds from parent department 	<ul style="list-style-type: none"> ✗ Lacks a "seat at the table" with senior city leadership ✗ Perceived to not prioritize animal welfare underneath Code 	<ul style="list-style-type: none"> ✗ Lower-level leadership role lacks authority to execute ✗ Multiple layers of mgmt cloud accountability
Independent department	<ul style="list-style-type: none"> ✓ Hiring easier due to higher profile ✗ Competes with other departments for budget 	<ul style="list-style-type: none"> ✓ Greater control over messages and access ✓ Demonstrates animal services as a priority 	<ul style="list-style-type: none"> ✓ Single accountability sharpens priorities ✓ Least likely to experience conflicts of interest
Partially privatized (Shelter only)	<ul style="list-style-type: none"> ✓ Hiring easier due to partial separation from city ✓ Fixed funding from city, but can receive donations 	<ul style="list-style-type: none"> ✓ Partial control over message, but removed from government ✓ Greater freedom of action ✗ Lack of coordination between shelter and animal control 	<ul style="list-style-type: none"> ✓ Greater operating potential ✗ Moderate effort in standing-up new structure
Completely privatized (Field + Shelter)	<ul style="list-style-type: none"> ✓ Hiring easiest due to complete separation from city ✓ Fixed funding from city, but can receive donations 	<ul style="list-style-type: none"> ✓ Free control of message, but removed from government ✓ Greatest freedom of action 	<ul style="list-style-type: none"> ✓ Greatest operating potential ✗ Org lacks accountability to city, potential conflicts exists ✗ No clear organization today to fill this need immediately ✗ Heavy setup effort

Note: Typically, cities/counties will only privatize their animal shelter operations and operate field collection themselves. See compendium for more detailed assumptions. Source: BCG analysis

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While a recommendation for "complete privatization" would have provided an organization with the greatest freedom to hire, communicate, and operate, there were three key risks that prevented us from recommending this organizational and governance structure:

- First, under a Completely Privatized structure the Dallas government could lose control of its Animal Services. For example, the organization could choose to stop all field intake with only the threat of losing funding. The Dallas government would not have a viable secondary option in the interim.
- Secondly, there were no clear nonprofit partners that we believe would actively seek to assume both field and shelter operations. While these may exist, they were not brought to our attention.
- Third, the effort to transition to a full privatized model represents a high level of effort which in our opinion could be better applied to addressing public safety and animal welfare.

Partial privatization would create a model in which the city focuses almost exclusively on public safety and the partnering non-profit would assume all responsibility for *intake* of collected animals and animal welfare. Such a model exists in two comparable cities/counties: Nevada Humane Society for Washoe County (Reno) and The Animal Foundation of Clark County (Las Vegas). This model:

- Allows the city to focus all of its resources entirely on public safety (field operations)
- Provides the non-profit organization greater access to fundraising, hiring, and ease of operations.

Ultimately we felt that the effort in implementing partial privatization was not necessary given alternatives available:

- A similar impact on *live release rate* could be achieved through establishing a contractual relationship with a high-volume *transfer*, as opposed to ceding the existing shelter operations to that organization.
- The effort to transition to a full privatized model represents a moderate level of effort, which, in our opinion, could be better applied to addressing public safety and animal welfare.

When speaking with leaders in the animal welfare community across the country, many believed animal services needs to be an independent department. One interviewee noted, "Animal services needs to be a priority...[you] cannot put it inside another department and say it's a priority"

There are many benefits to becoming an independent department. Hiring is easier due to the organization's higher profile within the city. Communication and coordination with stakeholders is more effective thanks to greater control over messaging. And delivery of services is improved due to a single point of accountability, which sharpens management priorities and limits conflicts of interest.

Therefore, it is our recommendation that DAS become an independent department that delivers both field and shelter-related services.

As an independent department, DAS will likely need to add additional personnel in finance, human resources, communications, and IT. The cost for these new positions was estimated at \$310,000 based on current *transfer* costs incurred by DAS, general public sector benchmarks, and comparison to other animal services departments.

Whether the newly independent DAS department should continue to exist within the "quality of life" portfolio or become part of the "public safety" portfolio, which includes DPD, was not evaluated.

6.2 The city of Dallas should increase funding for Dallas Animal Services to support recommendations

Rationale: Historically, Dallas Animal Services has been underfunded relative to its peers on a per capita basis. More recently, and following multiple budget increases, Dallas Animal Services' budget still lags its peers for fiscal year 2015-2016, but only by ~\$0.78 per person or nearly ~\$1 million in aggregate.

In many comparable cities in the US, animal services departments effectively augment their municipal budgets by forming explicit and contractual partnerships with a major nonprofit organization. Animal Services departments that achieve this significantly increase their potential funding, where Dallas lags peers with such arrangements by nearly \$8 million annually on a per person adjusted basis.

In total, BCG recommendations will require long-term incremental funding to DAS of ~\$2.7 million, a three-year surge of funding for spay and neuter totaling ~\$7.5 million per year, and additional city spending of ~\$0.4 million and ~\$0.2 million for animal-related early childhood education and a two-person project management team, respectively. (Refer to Exhibit 2 for details on necessary funding.) While the project management team is an urgent, short-term recommendation, the childhood education recommendation is a long term option that will require lead time in order to fund, implement, and see results.

We recommend that the city of Dallas approve DAS budget increases in the incoming fiscal year by ~\$1.2 million (in excess of the current proposed \$1.5 million budget increase) to a total of \$12.9 million.

By doing so, the city will both enable DAS to execute this sweeping set of recommendations and also demonstrate its commitment to the community of private funders that will also be necessary to succeed in this mission.

At the same time, we encourage the city government to insist on clear metrics for success (recommendation 1.2) that will demonstrate the value of an investment.

6.3 The city of Dallas or DAS should hire a project manager and data analyst to oversee the implementation of recommendations

Rationale: Due to the large scope of these recommendations, a project manager should oversee projects, track success, and identify potential opportunities to reprioritize as necessary. Project managers effectively manage time, budget, and overall scope. They should also build a project plan, guide implementation of recommendations, and track progress.

In addition to the project manager, the data analyst will be responsible for tracking progress

and generating automatic or weekly reports to ensure initiatives are successfully on track.

The project manager will escalate potential issues, ensure alignment, and eliminate any barriers to implementation. The yearly cost for a project manager is ~\$100,000, and the yearly cost for a data analyst is \$58,000.⁴⁷

6.4 The Animal Advisory Commission should establish new subcommittees to support DAS

Rationale: Most for-profit and non-profit organizations have boards that actively support and contribute to the success of the overall organization. In the nonprofit world, these boards are made up of civic-minded, highly engaged individuals who work on behalf of their organization to identify and solve complex issues. To engage in effective problem solving, most boards have subcommittees that focus on specific topic areas.^{lxxxii}

When speaking with animal officials in benchmark interviews,⁴⁸ the split between municipalities that did and did not have an animal advisory board was roughly 50/50. In municipalities that did have an animal advisory board, interviewees often struggled to work with their boards in a way that created value. As one animal services official said, "The productivity of the board varies dramatically with its members. I can't always count on the board to help."

Currently, Dallas City Code, Section 2-157 mandates that the city of Dallas must have an Animal Advisory Commission to support DAS. This commission has 15 members, each appointed by members of the city council. By law, the commission must include one licensed veterinarian, one city or county official, one member who operates an animal shelter, and one member from an animal welfare organization. Unlike most nonprofit boards, the current animal advisory commission has no specific subcommittees or mandate around which to organize. The city council should appoint members that have the skills and experience to create positive change for the Dallas community.

To better serve the community, as well as DAS, we recommend that the Dallas Animal Advisory Commission be restructured to create relevant subcommittees, reform membership rules, and strengthen its contributions to DAS and the community.

Animal Advisory Commission Subcommittees and Membership

We recommend the formation of five subcommittees responsible for public safety, shelter

⁴⁷ This was determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits.

⁴⁸ Benchmark cities include Atlanta, Austin, Houston, Jacksonville, Las Vegas, Los Angeles, Miami, Reno, San Antonio, and San Diego.

management, animal cruelty, public relations, and external relations. Each subcommittee would consist of three members. This member limit^{lxxxiii} represents standard practice and is meant to ensure productivity and foster innovative ideas and suggestions based on each member's specific background. To support DAS, members will be responsible for assisting or advising in the development of policies and procedures relating to their subcommittee's focus area.

The Public Safety subcommittee would provide advice on issues relating to the population of *loose dogs*, the number of dog bites, and the efficacy of field *intake* programs.

The Shelter Management subcommittee would provide advice on issues affecting data collection and reporting, euthanization decision processes, adoptions, *transfers*, and the foster program.

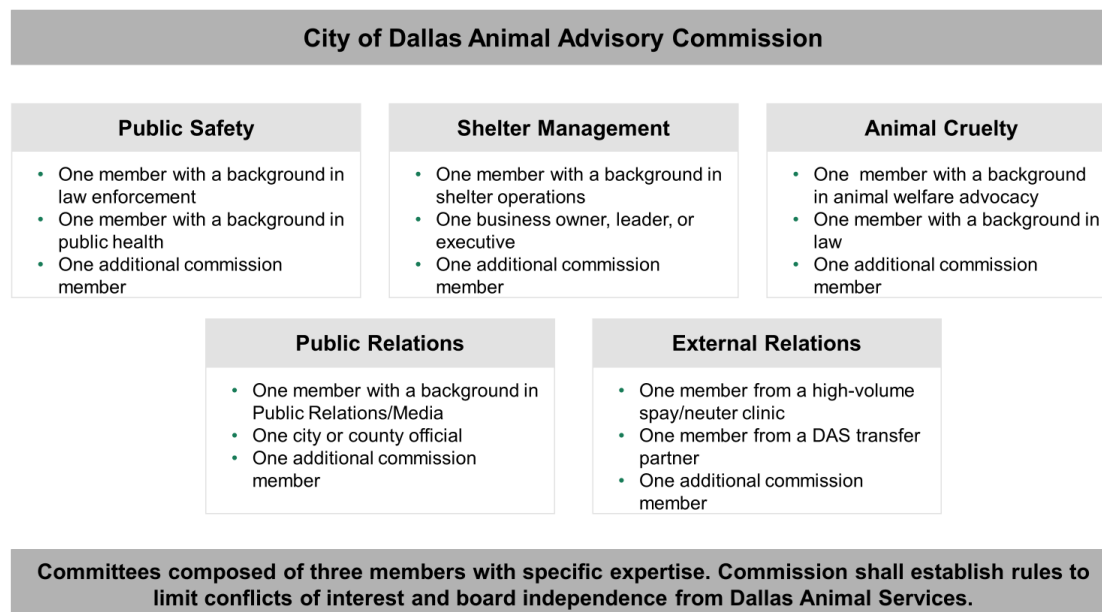
The Animal Cruelty subcommittee would advise DAS on the animal cruelty investigation process, including education strategies, and enforcement procedures.

The Public Relations committee would offer guidance on the effectiveness of DAS' communication with the public, including standard policies and procedures related to social media, marketing materials, strategies for major events and day-to-day operations, and crisis and emergency management.

The External Relations subcommittee would advise DAS on its relationships with philanthropic organizations, major adoption partners, and other allied organizations (such as the proposed spay and neuter coalition).

To ensure the commission has the required skills to appropriately staff each subcommittee, we further recommend that the commission include at least one member each with a background in law enforcement or public safety, technology or data science, law or legislation, communications and business development, or corporate strategy.

Exhibit 32| BCG recommends the formation of five subcommittees



Source: BCG analysis

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Animal Advisory Commission Independence

Effective boards carefully consider conflict of interest and support diverse ideas and opinions.^{lxxxiv} Minimizing conflict of interest helps ensure ethical decision-making among board members. Diversity can aid in problem solving because people with different backgrounds will offer a variety of perspectives. While the city of Dallas has a conflict of interest policy, we suggest the commission adopt policies that promote diversity of opinion.

Specifically, to promote diversity of opinion within the commission, the Animal Advisory Commission should implement a membership rule ensuring that no more than three commission members are affiliated with one another through an employer, nonprofit board, social club, or other organization.

To strengthen the independence of the commission, we also recommend that current DAS employees be prohibited from sitting on the commission as members—a policy which was in place prior to 2014.

6.5 DAS should be exempt from the civil service hiring process

Rationale: Today, DAS hires employees through the civil service process. Anecdotally, it can take up to nine months to fill a position, and good candidates often find employment elsewhere. This difficulty contributes to the challenges DAS has filling all open positions (14% of its positions unfilled).

While the civil service provides worker protections and prevents political appointments, the hiring process at DAS needs to be improved if the recommendations on this report are to be put in place.

If DAS were to receive a civil service exemption for hiring (e.g., job postings, resume screening, and interviewing) it would streamline the hiring process, allow the organization to attract top talent, decrease the time to fill open positions, and allow DAS to hire candidates with specialized training. This exemption would not erode protections for new or existing employees as it would impact only the process of filling an open position.

If DAS becomes an independent department (recommendation 6.1), this could be implemented without incremental cost as additional human resources personnel are already budgeted for. If DAS is not an independent department, an additional employee may be needed to manage the hiring process.

Recommendation 7 – Ensure efficiency by measuring outcomes and increasing volunteers

Over time, any organization should strive to do more with the same level of resources – or the same amount of output with fewer resources. Improving in this manner typically results from delegation and performance tracking, where work is divided up across an organization and individuals or teams are measured and managed according to specific performance metrics. Alternatively, organizations can become more efficient by tapping into cheaper pools of resources, e.g., volunteers.

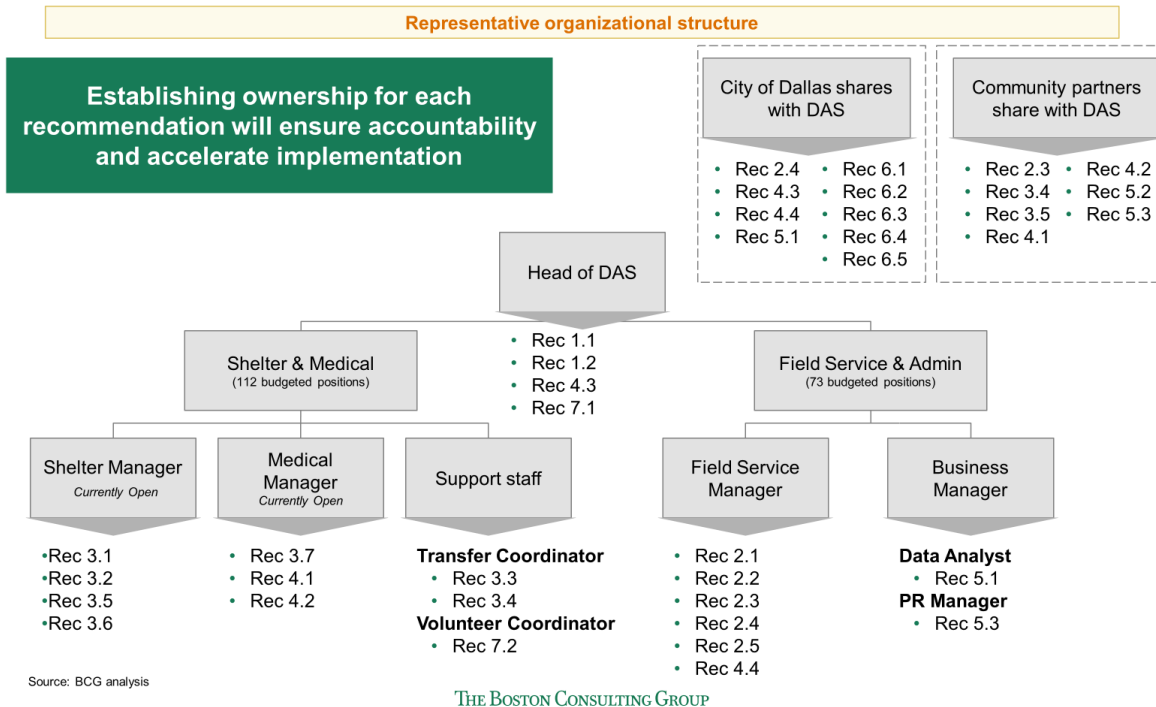
In this set of initiatives, we recommend that DAS delegate initiatives across its organizational structure, where the balance of non-DAS led initiatives would be assumed by other organizations (as specified in recommendation 5.2).

Additionally, we recommend DAS expand its existing volunteer program, both in the number of volunteer hours and volunteer tasks, to increase the efficiency of shelter operations and free up resources for other tasks.

7.1 DAS should align its organizational structure and employee performance with its mission

Rationale: In our opinion, it is not feasible for a single individual within DAS to effectively oversee and manage implementation of all of BCG’s recommended actions. Accordingly, each recommendation should be assigned a specific owner to oversee its implementation and long-term success. Certain DAS roles are a natural fit for some of the recommendations, while others initiatives require coordinated efforts across DAS, the city of Dallas, and animal welfare organizations.

Exhibit 33| Each recommendation needs a specified owner



Each owner should be assigned specific metrics to track performance of that initiative in order to measure process and promote continuous improvement. It's a cardinal management principle: when performance is measured, performance improves. When performance is measured and reported, the rate of improvement accelerates.

By tracking additional metrics, DAS can understand what works and what doesn't, ensure the right behaviors and efforts are rewarded, and share best practices. There are several important metrics that DAS can use to track progress (some of which are already being tracked). To track these metrics, DAS will need to secure a dedicated analyst who is well-versed in SQL and understands the full capabilities of *Chameleon*. This initiative will require an additional data analyst at \$58,000⁴⁹ to track and report on employee performance. This analyst will also be responsible for the mission scorecard detailed in recommendation 1.2.

⁴⁹ This was determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits.

Exhibit 34| Sample productivity metrics to track progress

Representative metrics-- to be decided by DAS

Field team metrics	OTC intake team metrics	Shelter team metrics	Medical team metrics
Field intake	OTC owner surrenders deflected with aid	Live release rate	Live release rate
Intake per ASO		Length of stay	Spay/neuter per hour and per day
Citations per ASO		Return rate for adopted dogs	% of dogs experiencing health decline in DAS
CARE team metrics		'Share of wallet' for top 20 transfer partners	% of dogs euthanized by intake
<ul style="list-style-type: none"> • People reached • Warnings issued • Citations written 			Asilomar health categorization

Productivity metrics for DAS should be limited to actions DAS can control

Source: BCG analysis

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7.2 DAS should increase the scale of its volunteer program with a greater variety of roles

Rationale: Volunteers can help DAS improve its operating efficiency and build even stronger bonds within the community.

In October 2015, DAS hired a volunteer coordinator—with grant funding—to develop this capability. DAS has outlined numerous tasks volunteers are allowed to participate in,^{lxxxv} including, but not limited to:

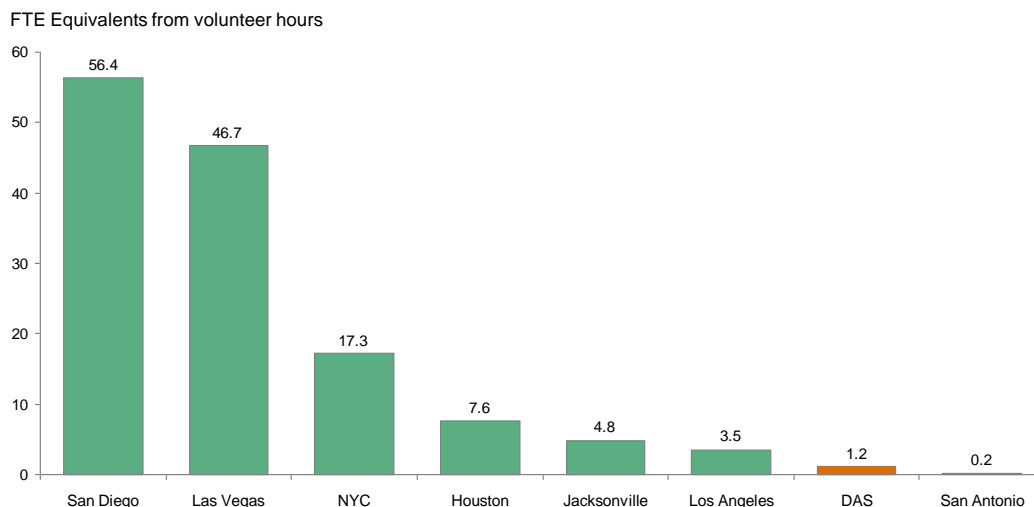
- Helping at the dog or cat adoption desk (freeing up shelter staff to perform duties)
- Helping with the lost and found desk
- Transporting dogs to *transfer/rescue* partners
- Helping administer medical treatment (for veterinary volunteers and students only)

- Photographing dogs for adoption website

Volunteers are asked to commit to at least four hours per month. From October 2015 through June 2016, DAS has accrued approximately 1,800 volunteer hours, excluding EAC volunteers. On an annualized basis, this represents the equivalent of ~1.2 full-time employees. In January 2016, which drew the greatest number of volunteer hours, DAS volunteers donated 360 hours, representing the equivalent of ~2.3 employees for the month.

Relative to other animal shelters, DAS lags in the number of full-time employee equivalents from volunteer hours.

Exhibit 35| DAS volunteers provide the equivalent of 1.2 full-time employees



Source: Expert interviews, BCG analysis

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Based on the higher number of volunteer hours other shelters have been able to realize, coupled with the low cost of managing volunteers (relative to temp labor), we recommend the volunteer coordinator devote 100% capacity to increasing volunteer hours. This coordinator should leverage all possible avenues to recruit volunteers, including corporate volunteer programs, Boy/Girl Scouts, Facebook page supporters, local colleges, etc.

DAS could increase the number of volunteers by publicizing the numerous volunteer roles it has already created as well as adding some new ones such as:

- Fostering animals who remain in stray hold but are good candidates for adoption
- Creating reports and analyzing *Chameleon* data

While the volunteer program currently does assist the shelter in other ways, the program is not as robust as it is in other peer cities. By building on current momentum, DAS can create a volunteer program that materially impacts its operation and builds a strong base of supporters among the community. Following the expiration of the grant, the cost of this initiative will be \$51,000⁵⁰ per year for a full-time volunteer coordinator.

⁵⁰ This was determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits.

Next steps

Successful implementation of these recommendations will require coordinated efforts across many stakeholders in the community. As Dallas initiates the plan, it should keep in mind several key principles for execution.

Get started through ownership: All stakeholders in the city of Dallas, from city government to individual citizens, play an important role in addressing the loose dog population. In our estimation, the greatest risk associated with our recommendations is the potential for stagnation. To create momentum and ensure success, the animal welfare community will need to focus its resources on recommendations on the short term until the long term solutions, such as spay and neuter and education, take hold. Each stakeholder must play a distinct and coordinated role.

Exhibit 36| Recommendations require community action

City of Dallas	<ul style="list-style-type: none"> • Approve funding increases to support additional ASOs, S/N surge, other initiatives • Make DAS a priority and accountable by creating an independent department • Improve efficacy of enforcement – warrants/arrests, civil citations
Philanthropies	<ul style="list-style-type: none"> • Provide funding based on rigorously quantified and tracked plans (esp. S/N) • Encourage collaboration across executing organizations
DAS	<ul style="list-style-type: none"> • Prioritize and execute initiatives for near-term impact • Coordinate and collaborate with other organizations on key recommendations
Animal welfare organizations	<ul style="list-style-type: none"> • Devote greater share of resources (e.g., dog intake) in coming years to Dallas until S/N effective • Coordinate efforts for S/N, community outreach, and other recommendations to optimize available resources
Commission	<ul style="list-style-type: none"> • Increase engagement and support, by becoming an advisory board with subcommittees and expertise that helps DAS solve problems
Residents of Dallas	<ul style="list-style-type: none"> • Volunteer with animal organizations, especially specialized skills (photography) • Report violations & encourage responsible ownership among neighbors • Act as neighborhood advocates for S/N, encouraging others to be compliance

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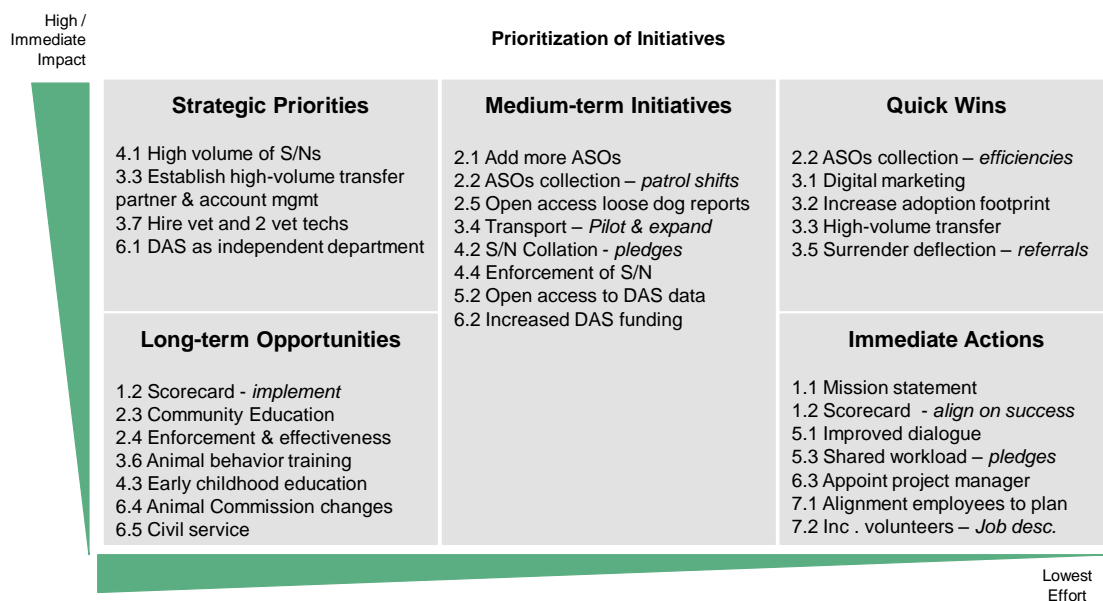
To take the first step in this journey, we recommend that the community engage in a summit to align on:

- Specific owners for each initiative

- Individuals or organizations that pledge to participate in a given initiative
- Metrics that will be used to track and measure success for each initiative

Prioritize: In our estimation, some initiatives are easier to accomplish than others. We would encourage a phased approach to the implementation of this plan, starting first with "Immediate Actions" and "Quick Wins" and moving on to "Medium-term initiatives," while building a plan to address "Long-term Opportunities" and "Strategic Priorities."

Exhibit 37| Recommendation prioritization



Source: BCG analysis

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Start small: Once ownership and participation is aligned, we encourage a "start small" mentality, identifying the minimal viable version of a recommendation vs. preparing for the full-scale rollout. For example:

- Instead of having a high-quality photograph of every dog on every day, could we begin by having five volunteers each photograph one day per week and define a process to minimize the effort to load pictures into *Chameleon*?

- Instead of having a robust foster network of 100 homes to support a full-scale transport program, could we establish two fosters to understand the transport process and network with adopters in northern cities?
- Instead of a team of five ASOs, could we assign two ASOs to an early morning shift and empower them to use the right tools to increase *intake*?

Once successfully implemented in its small-scale version, a recommendation is easier to implement to its fullest intent. In addition, the small-scale version can be started quickly, ensuring momentum for the entire plan.

Separately, we recommend that DAS identify the specific actions or recommendations that can be executed independently—without outside coordination or increased funding (e.g., improve dog photographs on *Petfinder*, build up the volunteer program, establish a program to deflect *owner surrenders*, and extend adoption hours).

Track progress: As certain initiatives are implemented, the potential value may be higher or lower than expected. By frequently tracking and reporting progress, resources can be properly allocated to the highest performing opportunities.

Highlight obstacles: As the community works through these initiatives, there will certainly be challenges. We encourage individuals and organizations to quickly highlight "obstacles" that prevent them from success within their own organizations or across organizations. This transparency can help others fill gaps in funding, capabilities, equipment, and access – allowing initiatives to overcome obstacles.

To succeed, the Dallas community must have a bias for action. We believe ownership, prioritization, starting small, tracking progress, and highlighting obstacles will contribute to the successful implementation of these recommendations.

Conclusion

The city of Dallas is facing both a challenge and an opportunity. The challenge of improving quality of life for Dallas residents by addressing loose or uncontrolled dogs, and the opportunity to rescue animals and treat them with dignity and care. We believe that any solutions pursued by the city should strike a balance to address both needs: public safety and animal welfare.

In total, BCG's seven recommendations strike this balance, enabling city leaders to remove greater numbers of *loose dogs* from the streets and control the dog population over the long term, while simultaneously improving outcomes for Dallas dogs.

While some of these recommendations can be implemented by Dallas Animal Services, the majority will require a coordinated effort by a broad group of stakeholders, including city leadership, the animal welfare community, and Dallas residents. These actions must be implemented in an orchestrated manner to achieve optimal results and avoid unintended consequences. Stakeholders will need to meet regularly, communicate openly, and measure progress over time.

With a clear strategy, and a sustained focus on balancing public safety and animal welfare, we are confident that the recommendations outlined in this report will improve quality of life for Dallas residents and dogs.

Glossary of terms

Chameleon: A software and technology system/database for animal control agencies, humane societies, SPCAs, and other animal sheltering organizations to manage data

Civil citations: A class of citations that does not require the defendant (or the issuing ASO) to be present in court to be found guilty of the citation. These citations cannot result in a sentence but can be followed up by a collection agency.

Community interventions: Refers to *return to owners*, adoptions, *transfers*, and spay and neuter surgeries

Criminal citations: A class of citations that requires the defendant and issuing ASO to be present in court to defend or contest the citation. These citations can result in sentences, warrants, and jail time.

Docket: A digital portal that supervisors can access in order to assign a court date for a *civil citation*

Field capture: When an animal service officer captures a loose animal in the field that is not confined

Field collection: When an ASO collects an animal in the field, including capture of *loose dogs*, collection of confined animals, and *owner surrenders*

Field return to owner: Refers to the process when an animal service officer brings an animal back to its owner

Intake: Used to describe the amount of animals entering the municipal shelter or 501(c)(3)

Live release rate (LRR): The percent of dogs entering a shelter that are not euthanized

Loose dogs: Any dog not under direct control or not prevented from roaming⁵¹

Open admission shelter: Often referred to as “open *intake*” shelter, these shelters never turn away an animal regardless of health, age, breed, or temperament

⁵¹ Hassan Aidaros, “Monitoring and Control of Dog Populations,” World Organisation for Animal Health.

Owner surrender: When an individual makes the decision to give up a pet due to financial hardship, moving, behavior issues, etc.

Petfinder: A national online portal where adoptable dogs, including DAS dogs, can be browsed by the public. The DAS inventory of adoptable dogs is automatically updated daily via *Chameleon*.

Pet Harbor: A national online website where all dogs from city shelters can be browsed by those who lost dogs and/or those who want to adopt. This website is operated by *Chameleon* so DAS's dog inventory is updated automatically every hour.

Positive placement: A term referring to all pets who are adopted, rescued, *transferred* to another shelter, or returned to owners after being lost

Pulling a dog: When a *transfer* physically picks up a dog from a shelter, claiming ownership of said dog

Return to owner (RTO): Animals that are successfully returned to their owners after being lost

Stray dogs: Dogs without owners

Stray turn in: Refers to a citizen bringing an animal that does not belong to them to the municipal shelter or 501(c)(3) organization

Tagging a dog: When a *transfer* puts a hold on a dog to be picked-up within 24 hours

Targeted response team sweeps: When one team of ASOs sweeps a census track or targeted area that has a lot of 311 requests mapped to it. These often occur on Wednesdays when all ASOs work.

Transfer: A dog that is taken from DAS and fostered or housed in a shelter until it can be adopted by a new owner

Transfer partner: A rescue groups that takes dogs from DAS and other municipal shelters to house in another shelter or with a foster until the dogs are adopted by a new owner

Transfer coordinator: The one FTE at DAS who has the responsibility for communicating with and pulling dogs for rescue partners

BCG team

Leadership



Dylan Bolden
Dallas



Keith Melker
Dallas



Michael Sherman
Dallas

Project management



Stephen Edison
Dallas



Ramiro Palma
Dallas

Consulting team



Roman Berhe
Dallas



Anna Lassiter
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Adam Hanselman
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Blake Bergeron
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Toby Arriaga
Dallas

Endnotes

ⁱ 2011 *City of Dallas Community Survey* and 2016 *City of Dallas Community Survey*, both conducted by the ETC Institute on behalf of the City of Dallas.

ⁱⁱ 2011 *City of Dallas Community Survey* and 2016 *City of Dallas Community Survey*, both conducted by the ETC Institute on behalf of the City of Dallas.

ⁱⁱⁱ 2014 *City of San Antonio Community Survey* and 2014 *City of Austin Community Survey*, both conducted by the ETC institute.

^{iv} Based on observed spay and neuter levels of the 2015 DAS shelter, field intake, local expert interviews, and secondary in-community data sets.

^v New JC Jr, Kelch WJ, Hutchison JM, Salman MD, King M, Scarlett JM, Kass PH, "Birth and Death Rate Estimates of Cats and Dogs in US Households and Related Factors," *The Journal of Applied Animal Welfare Science* 2004;7(4):229-41.

^{vi} 2016 *City of Dallas Community Survey*, conducted by the ETC Institute on behalf of the City of Dallas.

^{vii} Alan M. Beck, *The Ecology of Stray Dogs: A Study of Free-Ranging Urban Animals*, Purdue University Press, 2002.

^{viii} BCG Dallas Community Survey, conducted in June 2015.

^{ix} Gilchrist J, Sacks JJ, White D, Kresnow MJ, "Dog Bites: Still a Problem?" *Injury Prevention* 2008 Oct;14(5):296-301, <http://www.ncbi.nlm.nih.gov/pubmed/18836045>.

- ^x Wright JC, "Canine Aggression Toward People: Bite Scenarios and Prevention," *Veterinary Clinics of North America: Small Animal Practice* 1991;21(2):299-314, <http://www.jurispro.com/uploadArticles/Wright-Canine%20Aggression.pdf>.
- ^{xi} Gershman KA, Sacks JJ, Wright JC, "Which Dogs Bite? A Case-Control Study of Risk Factors," *Pediatrics*, 1994;93(6):913-917, <http://www.ncbi.nlm.nih.gov/pubmed/8190576>.
- ^{xii} John C. Wright, "Reported Dog Bites: Are Owned and *Stray dogs* Different?" *Anthrozoös*, 1990;4(2):113-119, <http://www.tandfonline.com/doi/abs/10.2752/089279391787057260>.
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- ^{xv} NPR, May 28, 2016, Interview with Courtney Collins, Weekend Edition Saturday.
- ^{xvi} Fox4 News, May 25, 2016.
- ^{xvii} DAS employee interviews.
- ^{xviii} ASO ride-alongs (6/21/2016, 6/22/2016, 7/6/2016); interviews with field supervisors (7/25/2016, 7/26/2016).
- ^{xix} 311 call volume from June 2015 - May 2016; DAS 311 Request Priority Matrix.
- ^{xx} DAS 311 Request Priority Matrix.
- ^{xxi} Interviews with DAS supervisors and ASO CARE team ride-alongs.
- ^{xxii} Interviews with DAS supervisors.
- ^{xxiii} ASO CARE team ride-alongs.
- ^{xxiv} This assumes the team worked four days a week for four weeks each month.
- ^{xxv} CARE team data from April – July 2016.
- ^{xxvi} Dallas municipal court data from June 2014 - May 2016.
- ^{xxvii} Dallas municipal court data from June 2014-May 2016 (n=5,059).
- ^{xxviii} Dallas municipal court data from June 2014-May 2016 (n=5,059).
- ^{xxix} These growth rates are all determined from DAS Chameleon data and include data from 2011 to May 2016.
- ^{xxx} DAS organization chart as of Jun4 27, 2016.
- ^{xxxi} DAS Chameleon database and Rescue and Animal Organization Survey conducted by BCG in July 2016
- ^{xxxii} Interview with DAS Field Services employees.
- ^{xxxiii} Interview with DAS Field Services employees.
- ^{xxxiv} Alan M. Beck, *The Ecology of Stray Dogs: A Study of Free-Ranging Urban Animals*, Purdue University Press, 2002.
- ^{xxxv} 311 service request data.
- ^{xxxvi} Benchmark interviews. See appendix for detailed information on each city benchmark.
- ^{xxxvii} DAS employee interviews.
- ^{xxxviii} DAS employee interviews.
- ^{xxxix} ASO ride-alongs.
- ^{xl} DAS employee interviews.
- ^{xli} DAS employee interviews.
- ^{xlii} Interview with general manager of animal services in a comparable city.
- ^{xliii} ASO ride-alongs.
- ^{xliv} Interview with DAS ASO supervisor.
- ^{xlv} Dallas municipal court data between June 2014 and May 2016.
- ^{xlvi} 311 service request data.

- xlvi Workman MK, Hoffman CL, "An Evaluation of the Role the Internet Site Petfinder Plays in Cat Adoptions," *The Journal of Applied Animal Welfare Science*, 2015;18(4):388-97, <http://www.ncbi.nlm.nih.gov/pubmed/26114500>.
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- xliv Interview with volunteer who maintains the Facebook page, Dallas Dogs In Need of Transfer.
- ¹ This is an approximation based on expert interviews with other animal shelters.
- li DAS Chameleon Database.
- lii DAS Chameleon Database.
- liii This is based on forecasted population growth in northern Dallas.
- liv DAS Chameleon Database.
- lv Expert interviews with low-cost spay and neuter providers,
- lvi DAS Chameleon Database,
- lvii Expert interviews with low-cost spay and neuter providers.
- lviii Interview with DAS transfer coordinator, May 22, 2016.
- lix Rescue and Animal Organization Survey conducted by BCG in July 2016 (n=72).
- lx This was determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits.
- lxi Expert interview with owner of a pet transportation company.
- lxii BARC Foundation website.
- lxiii Expert interviews with low-cost spay and neuter providers.
- lxiv DAS Owner Surrender Survey (n=84), Q: "Why are you surrendering your pet to DAS today?"
- lxv DAS Owner Surrender Survey (n=84), Q: "If any of the following were available to you, would you choose to keep this animal?"
- lxvi This was determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits.
- lxvii Luescher, AU and Medlock, RT, "The Effects of Training and Environmental Alterations on Adoption Success of Shelter Dogs," *February 2009;117(1-2):63-68*, [http://www.appliedanimalbehaviour.com/article/S0168-1591\(08\)00308-0/abstract](http://www.appliedanimalbehaviour.com/article/S0168-1591(08)00308-0/abstract).
- lxviii Expert interviews with low-cost spay and neuter providers.
- lxix Interviews with DAS supervisors, August 17, 2016.
- lxx Wright JC, "Canine Aggression Toward People: Bite Scenarios and Prevention," *Veterinary Clinics of North America: Small Animal Practice* 1991;21(2):299-314, <http://www.jurispro.com/uploadArticles/Wright-Canine%20Aggression.pdf>.
- lxxi Gershman KA, Sacks JJ, Wright JC, "Which Dogs Bite? A Case-Control Study of Risk Factors," *Pediatrics*, 1994;93(6):913-917, <http://www.ncbi.nlm.nih.gov/pubmed/8190576>.
- lxxii This figure is based on DAS intake, observations, and expert interviews with animal welfare groups active in community.
- lxxiii PetSmart Charities 2011 survey.
- lxxiv Data from Pets for Life work in southern Dallas.
- lxxv DAS Chameleon database.
- lxxvi "The Animal Connection: APNM's Humane Education Program," *Making Tracks*, 2016:1-4.
- lxxvii Dallas Independent School District 2015-2016 statistics.
- lxxviii OECD, "Open Data," <http://www.oecd.org/gov/digital-government/open-government-data.htm>.
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- lxxxi Dallas Police Department General Order, Section 214.

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^{lxxxv} DAS volunteer manual and interviews with DAS supervisors.



Loose Dogs in Dallas: Strategic recommendations to improve public safety and animal welfare in Dallas

Initiative detail

August 2016

THE BOSTON CONSULTING GROUP

Context

In June 2016, BCG was engaged on behalf of the city of Dallas to evaluate opportunities to improve public safety, while safeguarding and improving animal welfare. BCG's assignment was to:

- Quantitatively understand the supply of dogs in Dallas
- Identify community priorities given varying constituent perspectives
- Identify best practices from other animal services organizations across the US
- Identify and prioritize levers to maximize impact on public safety and animal welfare
- Synthesize findings in a strategic plan for the community of Dallas to achieve its goals

To develop a comprehensive understanding of the situation, we employed a team of consultants for eleven weeks. Our recommendations are based on:

- **Qualitative interviews** with nearly 100 stakeholders in Dallas
- **Quantitative analysis** of all available data sources including the DAS database (Chameleon), 311 service requests, and 911 Record Management System (RMS) calls
- **Primary research** including a loose dog census, resident survey, and a survey of rescue/animal welfare organizations
- Review of **third-party studies** from national organizations and academic studies
- **Benchmarking** of animal services organizations in ten highly comparable cities across the US, including 30 qualitative interviews and desk research to understand best-practices

BCG scope was constrained by:

- Focus on **dog population**² only (vs. all animals) given link to public safety
- Not inclusive of process or recommendations surrounding **animal cruelty investigation**
- BCG efforts focused on improving the current situation, **not assessing prior events** unless critical to path forward

1. Live Release Rate from shelter; 2. Despite focus on dogs, most recommendations related to increasing live release rate expected to have significant positive impact on cats and other animals entering DAS.

This document contains BCG initiative detail

BCG completed three deliverables:

In this document

White-paper

Document contains written explanation of:

- Project background
- Relevant context and facts
- BCG recommendations
- Supporting rationale

Initiative detail

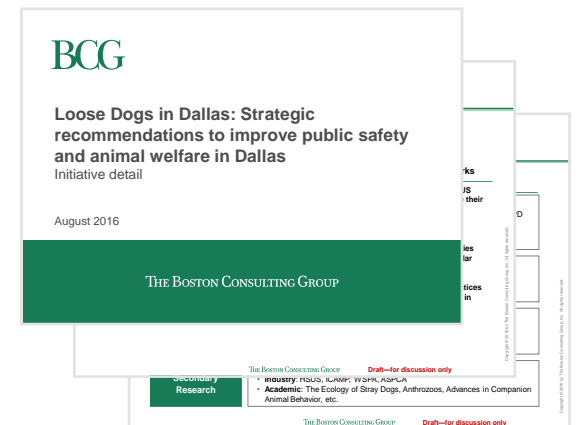
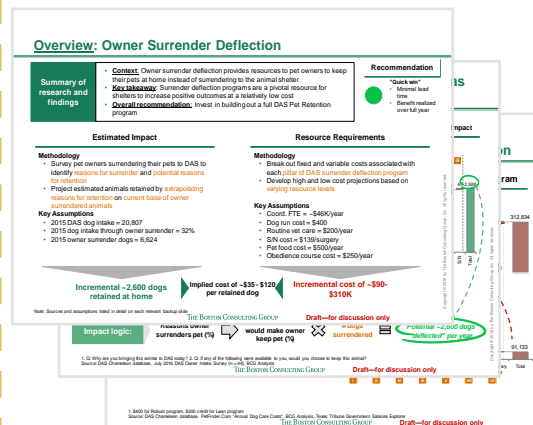
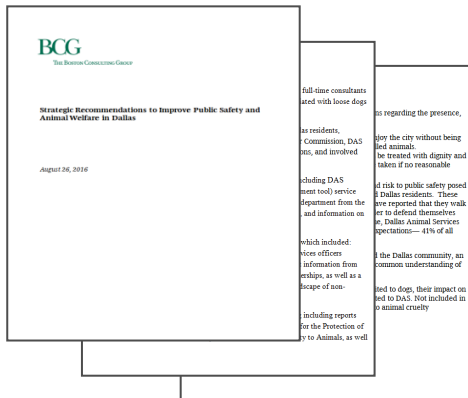
Contains details on each recommended initiative:

- Background context
- Key assumptions
- Sizing of potential (intake, outcomes, etc)
- Cost to execute

Working materials

Additional analysis completed during project, including analysis not reflected in recommendations

Not all materials validated by a second party



BCG recommends seven actions for Dallas

High level recommendations must be taken as a whole—cherry picking will not work

Priority	Recommendation
Mission	1 Publicly adopt a mission statement balancing public safety and animal welfare
Initiatives	2 Increase field intake (up to 8,700 loose dogs) and increase related enforcement and education to prevent dogs from roaming
	3 Increase the number of positive outcomes for Dallas dogs, euthanizing only the sickest animals
	4 Provide approximately 46,000 low-cost spay and neuter surgeries in southern Dallas each year for the next three years
Enablers	5 Create a collaborative community of partners
	6 Make animal services a priority and strengthen accountability within the city government
	7 Ensure efficiency by measuring outcomes and increasing volunteers

28 specific initiatives provide guidance on how to achieve high-level recommendations

Recommendation	Specific Initiatives
1 Mission	1.1 Balanced mission statement 1.2 Scorecard with metrics
2 Loose dogs	2.1 Add more ASOs 2.2 ASOs collection shifts 2.3 Community Education 2.4 Enforcement & effectiveness 2.5 Open access to loose dog sightings
3 LRR	3.1 Digital marketing 3.2 Adoption footprint 3.3 High-volume transfer partner & account mgmt 3.4 Transport program 3.5 Surrender deflection 3.6 Behavior training 3.7 Hire vet and vet techs
4 S/N	4.1 High volume of S/Ns 4.2 Community collaboration 4.3 Early childhood education 4.4 Enforcement of S/N
5 Collaboration	5.1 Open access to DAS data 5.2 Shared workload 5.3 Inclusive, fact-based dialogue
6 Accountability	6.1 DAS as independent department 6.2 Increased funding 6.3 Project manager and data analyst to track progress against plan 6.4 Animal shelter commission changes 6.5 Exempt from civil service hiring
7 Efficiency	7.1 DAS employee alignment to plan & metrics 7.2 Increased volunteer resources

Recommendations can be prioritized and phased in over time based on estimated effort and impact

High /
Immediate
Impact

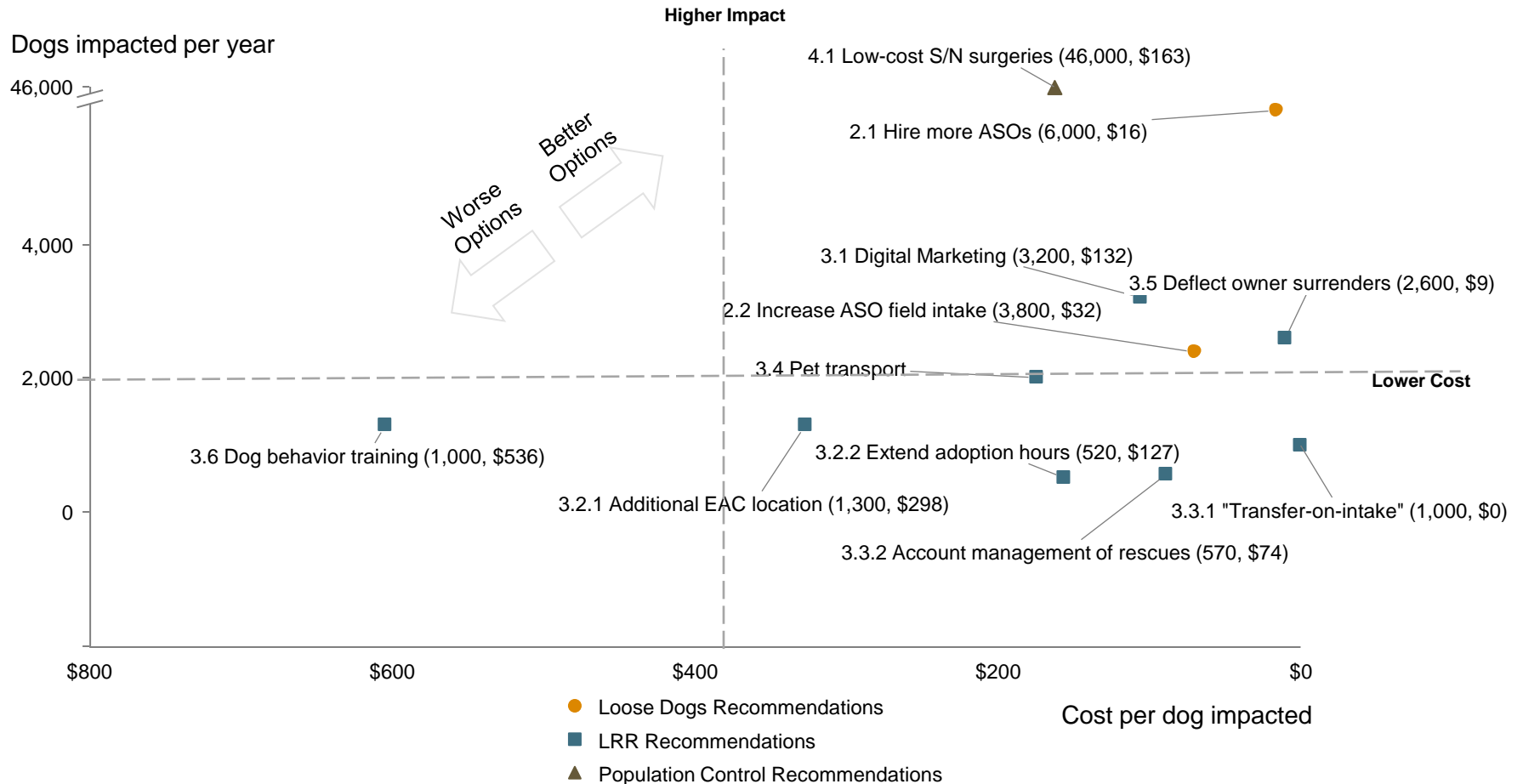
Preliminary/Suggested Prioritization of Initiatives

	<p>Strategic Priorities</p> <ul style="list-style-type: none"> 4.1 High volume of S/Ns 3.3 Establish high-volume transfer partner & account mgmt 3.7 Hire vet and 2 vet techs 6.1 DAS as independent department 	<p>Medium-term Initiatives</p> <ul style="list-style-type: none"> 2.1 Add more ASOs 2.2 ASOs collection – <i>patrol shifts</i> 2.5 Open access loose dog reports 3.4 Transport – <i>Pilot & expand</i> 4.2 S/N Collation - <i>pledges</i> 4.4 Enforcement of S/N 5.2 Open access to DAS data 6.2 Increased DAS funding 	<p>Quick Wins</p> <ul style="list-style-type: none"> 2.2 ASOs collection – <i>efficiencies</i> 3.1 Digital marketing 3.2 Increase adoption footprint 3.3 High-volume transfer 3.5 Surrender deflection – <i>referrals</i>
	<p>Long-term Opportunities</p> <ul style="list-style-type: none"> 1.2 Scorecard - <i>implement</i> 2.3 Community Education 2.4 Enforcement & effectiveness 3.6 Animal behavior training 4.3 Early childhood education 6.4 Animal Commission changes 6.5 Civil service 	<p>Immediate Actions</p> <ul style="list-style-type: none"> 1.1 Mission statement 1.2 Scorecard - <i>align on success</i> 5.1 Improved dialogue 5.3 Shared workload – <i>pledges</i> 6.3 Appoint project manager 7.1 Alignment employees to plan 7.2 Inc . volunteers – <i>Job desc.</i> 	

Lowest
Effort

Recommendations can be prioritized based on cost efficiency

Loose Dog and LRR Recommendations: Dogs Impacted vs Cost per Dog Impacted



Note: Includes high range for recommendations 3.4 and 3.6
 Source: Various and BCG Analysis. See full report and supporting materials for methodology, calculations, and exact sources.

Recommendations require incremental \$10.7MM funding

		Estimated rounded costs			
	Recommendation	FTE costs	S/N	Other costs	Total
Incremental DAS funding	2.1 Collection focused ASO team	\$94,000	\$0	\$0	\$94,000
	2.2 Increase current ASO intake	\$168,000	\$0	\$0	\$168,000
	3.1 Digital marketing	\$142,000	\$192,000	\$4,000	\$338,000
	3.2.1 Add'l adoption location	\$267,000	\$125,000	\$33,000	\$425,000
	3.2.2 Extended adoption hours	\$31,000	\$50,000	\$0	\$81,000
	3.3.2 Relationship management of transfer partners	\$51,000	\$0	\$0	\$51,000
	3.4 Transport program	\$51,000	\$192,000	\$42,000	\$285,000 ¹
	3.5 Owner assistance program	\$26,000	\$0	\$0	\$26,000
	3.6 Behavior training	\$0	\$122,304	\$648,060	\$770,364 ²
	5.1 Open data access	\$30,000	\$0	\$0	\$30,000
	6.1 Independent department	\$310,000	\$0	\$0	\$310,000
	7.1 Org. alignment to DAS mission	\$58,000	\$0	\$0	\$58,000
	7.2 Volunteer program	\$51,000	\$0	\$0	\$51,000
	Incremental DAS spend	~\$1,300,000	~\$700,000	~\$700,000	~\$2,700,000³
Incremental city funding	4.3 Childhood education	\$396,000	\$0	\$0	\$396,000
	6.3 Project management	\$158,000	\$0	\$0	\$158,000
	Incremental city spend	~\$600,000	\$0	\$0	~\$600,000
Incremental comm'y funding	4.1 Spay and neuter surge	\$175,000	\$7,300,000	\$52,000	\$7,500,000
	Incremental community spend	~\$175,000	~\$7,200,000	~\$50,000	~\$7,500,000
Total funding	Combined total spend	~\$2,000,000	~\$7,900,000	~\$800,000	~\$10,700,000

1. Took the high end of the range. Low-end of cost range is \$156k.; 2. Took the high end of cost range. Low end was \$392k

Note: An additional \$300,00 one time investment in DAS is also required for recommendations 2.1, 3.1

Source: BCG analysis

20160826_BCG_DallasDog_InitiativeDetail_vPublic.pptx

Agenda

Recommendation 1: Publicly adopt a mission statement balancing public safety and animal welfare

Overview: DAS should adopt a mission statement balancing public safety and animal welfare

Summary of research and findings

- **Context:** Today, Dallas Animal Services' publicly stated mission is largely focused on animal welfare and doesn't encompass all of DAS's responsibilities
- **Key takeaway:** Changing the mission statement can focus organizational priorities and provide a universal direction for the organization to work towards
- **Overall recommendation:** DAS should incorporate language emphasizing public safety and animal welfare into its' mission statement

Recommendation

Integrate language balancing public safety and animal welfare into publicly stated mission such as:

- Our mission is to ensure public safety, promote animal welfare, and contribute to a stable population of animals within the City of Dallas. Successful execution of our mission depends on the efficient and data-driven use of resources as well as collaboration with partners in our community

Rationale

- Mission statements publicly define the organization's priorities
- DAS's mission only focuses on animal welfare, not on public safety
- As DAS performs recommendations, a revised mission statement can help members of the community and DAS employees align on priorities

Overview: DAS should adopt a mission-centric scorecard with specific targets and regular progress updates

Summary of research and findings

- **Context:** Currently, DAS has limited metrics tailored to its mission statement
- **Key takeaway:** By aligning specific goals with parts of its mission, DAS can structure its work around measurable goals
- **Overall recommendation:** Dallas Animal Services should adopt a scorecard with measurable goals relating to public safety, live release rate, animal population growth, partnerships and collaboration, and operational efficiency

Recommendation

Mission scorecard should have specific targets relating to:

- Public safety
 - Loose dogs
 - Bites
 - Field intake
- Live release rate (LRR)
 - No. positive outcomes
- Population growth
 - Spay and neuter rates by zip code
 - Total spay and neuter surgeries
 - DAS intake by zip
- Partnerships
 - Transfer partner intake
 - Transfer partner satisfaction
- Operational efficiency
 - Cost per outcome

Rationale

- A focused mission is not sufficient to ensure success
- Measurable goals allow for greater and limit confusion in regards to what DAS is working towards

A scorecard focuses effort and creates transparency

Objective	Goal (Metric)	To be agreed by community		
		Current Level	2017 Target	2019 Target
Reduce number of Loose Dogs	Fewer loose/roaming dogs (to repeat loose dog census in 2017)	8,700 ¹	5,500	1,500
	Fewer dog bite reports from loose and stray animals	1,676 ²	1,500	800
	Fewer bite/animal-related emergency calls to 311 and 911	43,836 ³	40,000	30,000
Increase LRR	Improved LRR (Live Release Rate)	59% ⁴	69%	86%
Control Population through S/N	Higher rate of S/N among dogs in southern zip codes	15% ⁵	43%	80%
	High volume of S/N surgeries delivered	5,000 ⁶	28,000	46,000
	Lower long term absolute intake from southern Dallas	13,466 ⁷	22,166	10,000
Increase Collaboration	Increased partner satisfaction	50% ⁸	60%	70%
	Increased number of volunteer hours	1.2 FTE ⁹	10 FTE	25 FTE
Improve Efficiency	Decrease in average length of stay	7.6 days ¹⁰	7	6
	Increased efficiency of animal service officers (dog intake per year)	286 ¹¹	350	450

1. BCG Dallas dog census and BCG analysis. Targets based on increased intake from additional ASOs and improving intake by making changes to operations (Recommendation 2.1); 2. DAS bite reports. Targets based on 20% reduction in loose dogs; 3. 311 service requests and 911 calls. Targets based on reduction in loose dog; 4. DAS Chameleon database, CY 2015. Target based on intake increases starting at 11,790 positive outcomes and 8,535 negative outcomes (DAS Chameleon database). 2016 negative outcomes constant to 2015. Gradual ramp of positive outcomes with full potential realized in 2018; 5. Based on 2015 DAS intake and S/N status in DAS Chameleon database at the time of intake; 6. Surgeries completed by SNN, SPCA, DAS (through BFBD), DCAP, PFL specific to southern Dallas. Some surgeries completed through BFBD. Assumes gradual ramp up to 46,000 surgeries; 7. DAS Chameleon database, geocoding analysis, and BCG analysis. In short term will see slight increase in intake, however, once population growth is managed through spay and neuters will see a decrease; 8. Rescue & Animal Organization Survey BCG (n=72); 9. DAS volunteer hour excel file; 10. DAS Chameleon database, includes dogs that are euthanized or returned-to-owner on same day as intake. Targets based on enhanced digital marketing and increase in adoptions and transfers (Recommendation 3); 11. 2015 field intake and assumes 33 working ASOs across entire year. Targets based on increasing intake to match peer cities (Recommendation 2); Source: BCG analysis

Agenda

Recommendation 2: Increase field intake (up to 8,700 loose dogs) and increase related enforcement and education to prevent dogs from roaming

Overview: DAS should hire additional ASOs and focus 10 ASOs and 2 field supervisors on field collection and patrol

Summary of research and findings

- **Context:** Today, the majority of DAS ASOs are call focused, spending 90% of their time responding to priority 311 calls. ~60% of loose dog requests are not dispatched unless they can be mapped to the CARE target areas
- **Key takeaway:** Filling budgeted open positions (8 ASOs and 2 supervisors) and hiring an additional 2 ASOs focused on field intake would increase total projected dog intake by ~6,000 each year
- **Overall recommendation:** Invest in hiring and equipping a dedicate team of 10 intake-focused ASOs

Estimated Impact

Methodology

- Estimate the potential number of dogs captured per day by an intake-focused ASO team
- Extrapolate total potential capture based on number of ASO teams

Key Assumptions

- Estimated 15 dogs captured each day by an intake focused team of 5 ASOs (10 ASOs distributed into two teams of 5 for dog intake efficiency)

**Incremental ~6,000 dogs
captured / year**

Resource Requirements

Methodology

- Determine the total cost of ASO officers and trucks

Key Assumptions

- Cost of an ASO officer = ~\$47k per year
- Cost of an ASO truck = ~\$60k

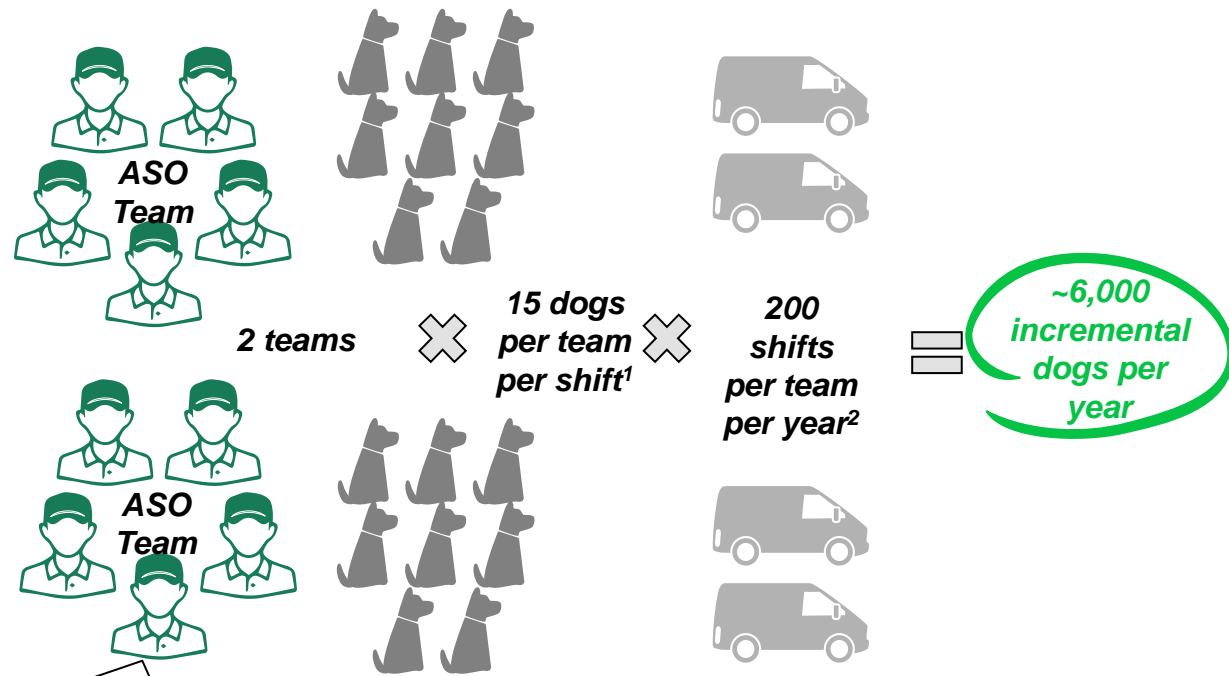
**Upfront cost: ~240k
Recurring cost: ~\$94k / year**

Estimated impact: Having 10 additional intake-focused ASOs could result in ~6k incremental dogs captured yearly

Key assumptions

Number ASOs per team	5
Number incremental ASOs	10
Number incremental ASO teams	2
Dog intake per team per day	15
Number shifts per week	4
Number weeks per year	50

Impact dependent upon ASO staffing levels and dog capture rates



Note: ASOs separated into teams in order to increase dog capture efficiency

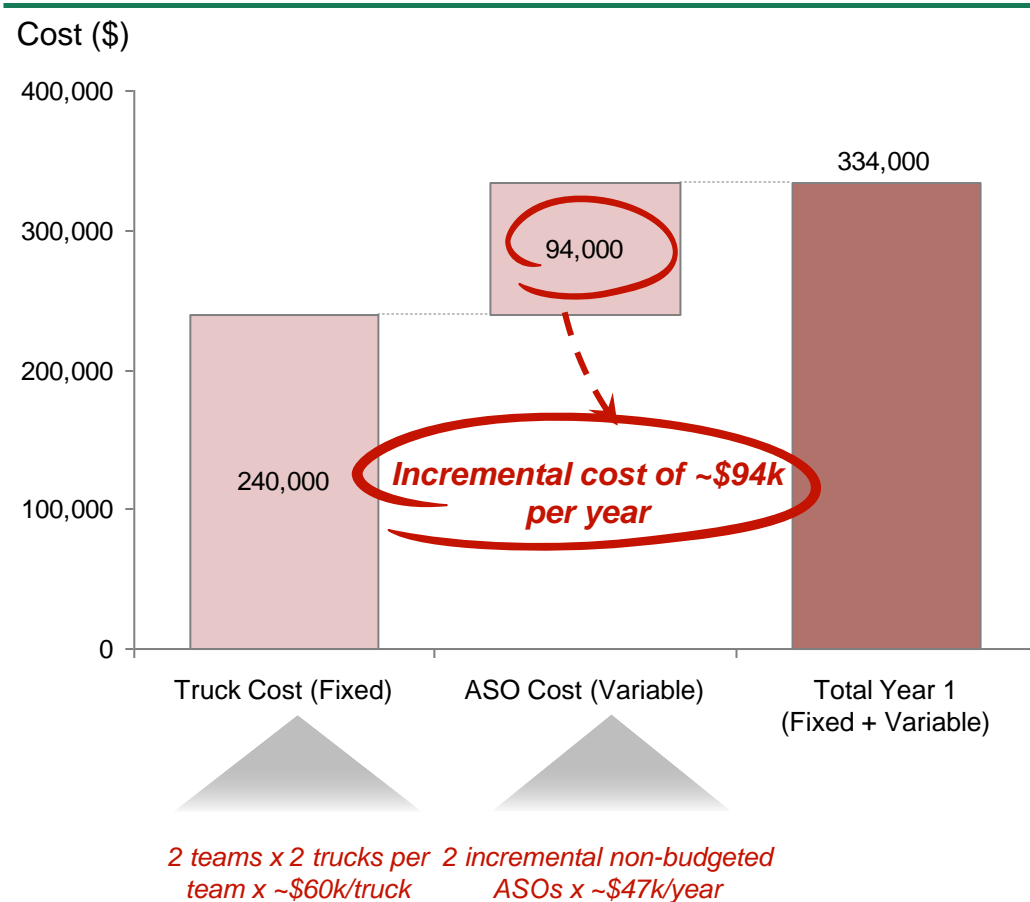
1. Estimated capture potential of an intake-focused ASO team; 2. Assuming 4 shifts each week for each team, 50 weeks working in the year; Note: Open budgeted positions to be filled as well which include 8 ASOs and 2 supervisors; Source: DAS Chameleon Database, Expert Interviews, BCG analysis

Resource requirements: Having 10 additional intake-focused ASOs would incur **~\$94k yearly cost**

Key assumptions

Incremental number ASOs	2
Cost per ASO per year	\$47,000 ¹
Cost per ASO truck	\$60,000
Number of trucks per team	2 ²

Resource requirements dependent upon ASO and truck cost



1. Determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits; 2. Only 1 truck needed per team at a time, 1 truck kept for backup and ad-hoc sweeps; Source: DAS Chameleon Database, Texas Tribune, BCG analysis

Overview: DAS should increase ASO field intake

Summary of research and findings

- **Context:** DAS field intake per ASO per year is 20% below peer cities
- **Key takeaway:** By increasing field intake to meet the average of peer cities, DAS can increase field intake by ~2,400 annually
- **Overall recommendation:** Eliminate low value work, provide better equipment, and make ASO processes more efficient to increase field intake

Estimated Impact

Methodology

- Identify field intake for comparable peer cities to determine the average intake per ASO per year
- Determine the difference between DAS ASO intake and the average ASO intake
- Calculate incremental dogs if DAS were to improve dog collection per ASO to the average

Key Assumptions

- Avg. dog field intake per DAS ASO per year is 284
- Avg. dog field intake per ASO per year in peer cities is 357
- DAS is capable of increasing ASO collection to the average level of its peers

Incremental ~2,400 field intake / year

Estimated costs

Methodology

- Estimate the salary of an incremental FTEs necessary
- Estimate the variable costs necessary to implement changes amongst the current DAS ASOs

Key Assumptions

- 4 additional 311 operators/dispatchers have salary of \$42k

Incremental cost of \$168,000 / year

Note: Sources and assumptions listed in detail on each relevant backup slide

Estimated impact: Making changes can increase annual field intake by **~2,400 dogs**

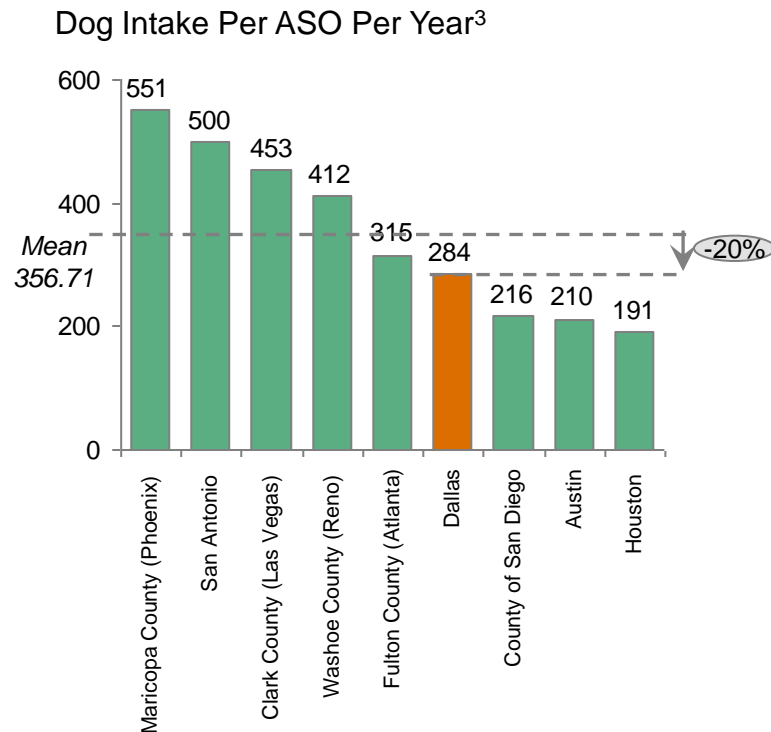
Assumptions

2015 field intake ¹	9,363
Number of ASOs ²	33
Avg. intake/ASO	284/yr.

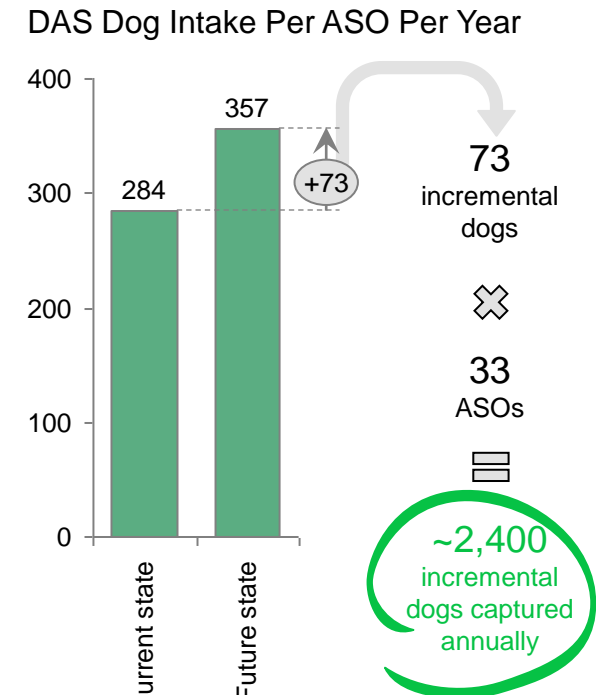
DAS can increase dog collection to the level of ASOs from peer cities through a combination of changes including, but not limited to:

- i Improving 311 processes
- ii Optimizing 311 response mapping
- iii Eliminating manual record keeping
- iv Upgrading field connectivity to Chameleon
- v Improving fleet and equipment management
- vi Encouraging ASOs with recognition and metrics
- vii Requiring consistent schedules for ASO officers

DAS field intake lags 20% behind peers at 284/ASO/year



Possible to increase avg. intake to 357/ASO/year



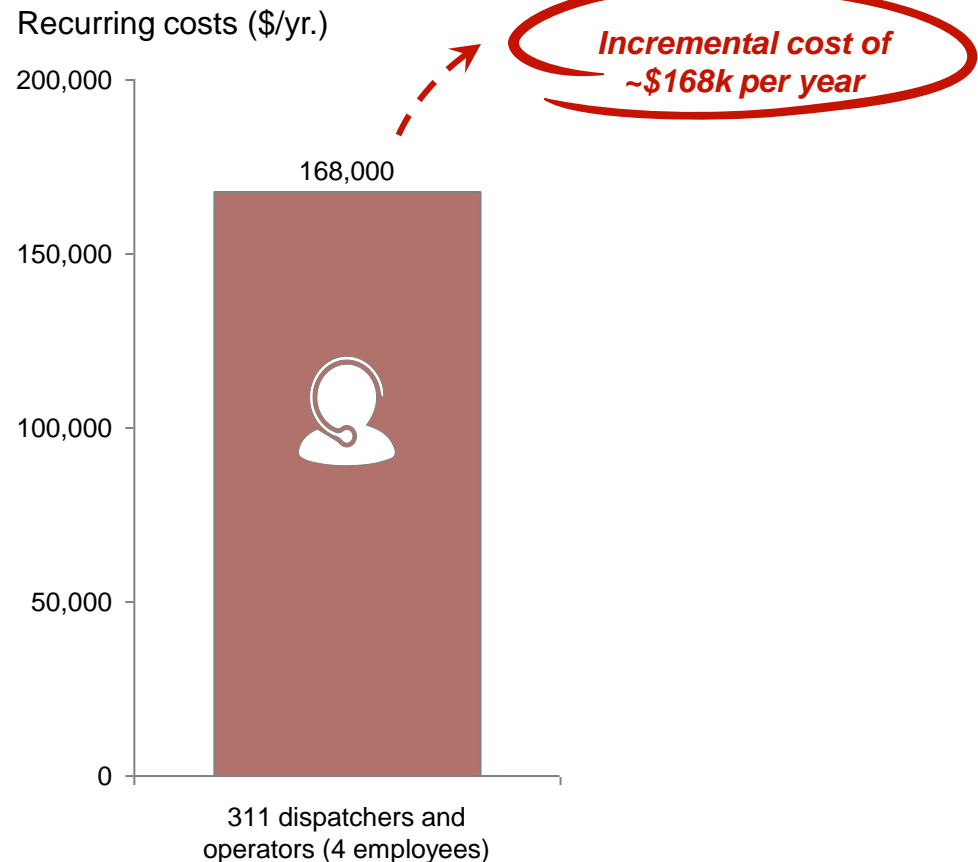
1. Includes field RTOs, field pickup, and field capture; 2. 33 self reported ASOs and Senior ASOs in organization; 3. Determined dog intake per ASO per year through interviews and official reports ; Source: DAS budget; DAS Chameleon database; DAS ridealongs; DAS field manager interviews; Interviews with animal control units from different cities; BCG analysis

Resource requirements: Increasing ASO productivity would cost **~\$168,000 a year**

Assumptions

Salary for 311 dispatcher and operator \$42,000¹

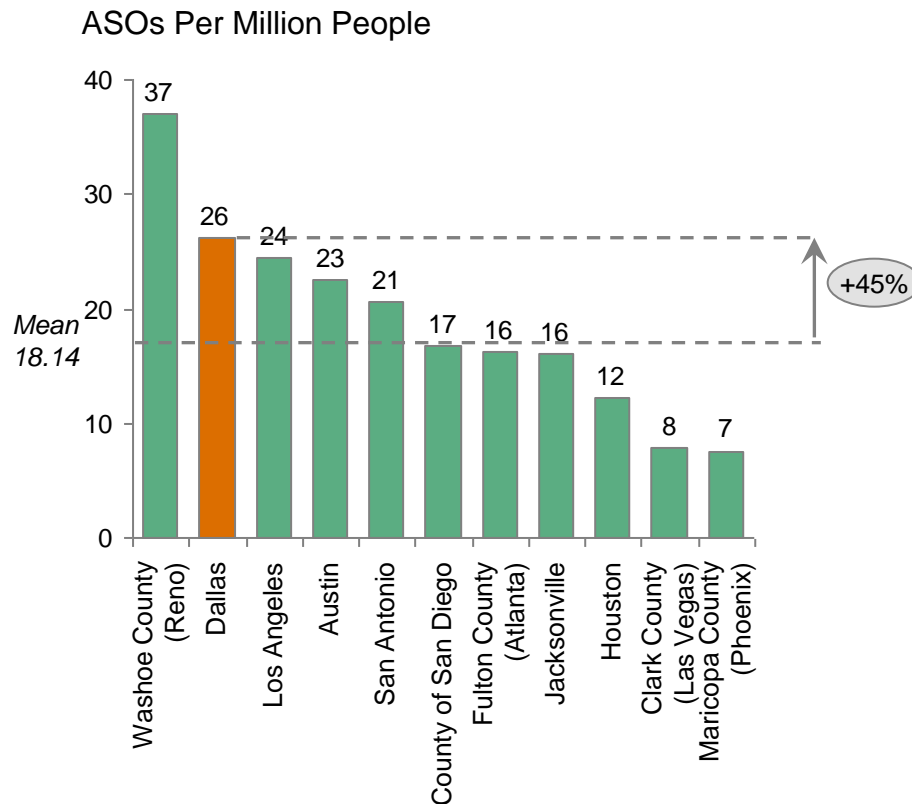
Incremental costs to support productivity



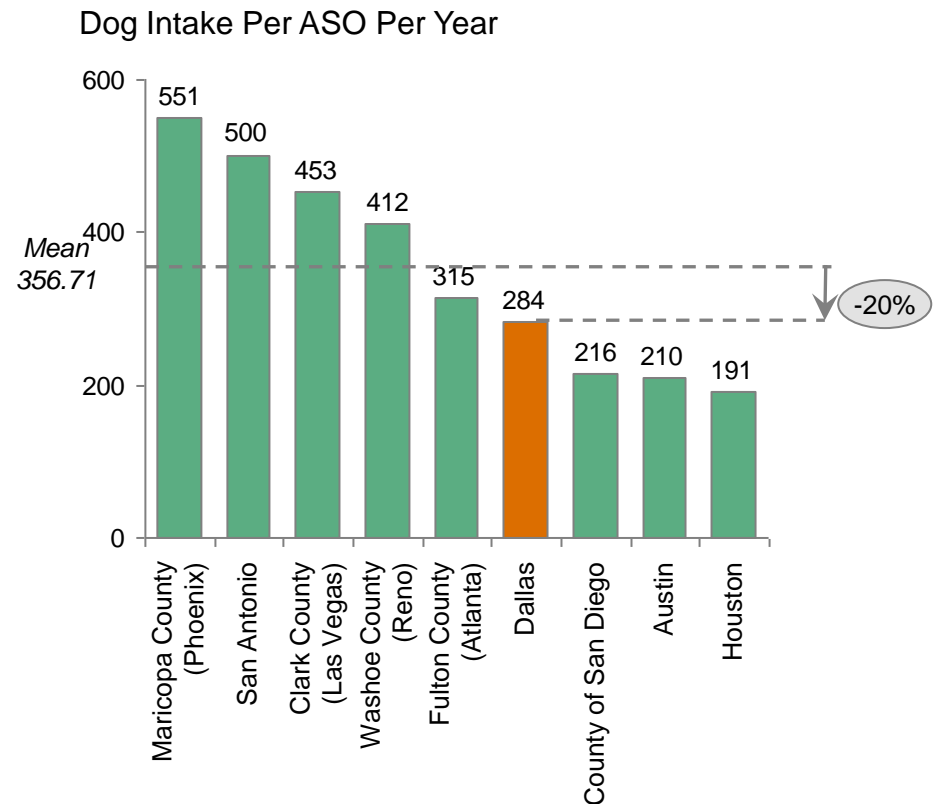
1. Determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits; Source: DAS employee interviews, Texas Tribune; BCG analysis

Compared to peers, DAS has higher ASO staffing levels and lower ASO field intake

DAS has 45% more ASOs per million people than benchmarks...



...but, DAS field collection lags by 20%



Note: Assumes that 33 DAS ASOs with a field intake of 9,363 for CY 2015; Source: DAS Chameleon Database; Maricopa County Yearly Report (2016); Clark County Animal Control, County of San Diego Animal Services, Houston BARC, Fulton County Animal Services, Austin Animal Services, Jacksonville Animal Services, San Antonio Animal Services, Los Angeles Animal Services, Washoe County Regional Animal Services . Population from US Census Data (2013); BCG analysis

Overview: Dallas community should educate residents about the dangers of loose dogs and ways to avoid bites

Summary of research and findings

- **Context:** CARE team and volunteer organizations conduct community outreach that includes educational and outreach component, but today lacks scale to reach all of southern Dallas quickly
- **Key takeaway:** By educating people on dangers of loose dogs, Dallas can reduce loose-owned dogs
- **Overall recommendation:** Dangers of loose dogs and how to avoid dog bites should be incorporated in current outreach efforts in order to educate the community

Recommendation / Rationale

Incorporate dangers of loose dogs and ways to avoid dog bites when encountering a dog in existing education efforts

- DAS CARE team and volunteer organizations to continue community education efforts
 - Build on education efforts currently in place for spay/neuter
- Education materials to be created regarding:
 - Potential hazards of loose dogs on community
 - Dangers of loose dogs

Presence of loose owned dogs is, in part, a function of human behavior

Goal is to:

- Increase community awareness
- Reduce loose-owned dogs on streets

Rationale – Current solution not scalable

Factor	Value
Southern Dallas households	173,598
CARE team HH/day	105
Days worked/week	4
Weeks/month	4
CARE team HH/month	1,674
Months to reach all HHs once	104
Years to reach all HHs once	8.6
Years to reach all HHs twice ¹	17.3

Note: In order to reach each southern Dallas household twice within two years, community needs ~8.5 times more manpower of the current CARE team today

1. Pets for Life in southern Dallas suggests two touches per household; Source: Experian Current Year Estimates (Q2 2015) for population data; CARE team data from April – July 2016; PFL; WHO-WSPA dog population management 1990; BCG analysis

Overview: The City of Dallas should make animal-related citations more effective

Summary of research and findings

- **Context:** Today, citations are difficult to issue and have ineffective follow through with 46% of all citations not responded to by defendants
- **Key takeaway:** If citations are easier to issue and have stronger follow through, there may be more compliance to Dallas city animal ordinances (and fewer loose dogs)
- **Overall recommendation:** DAS should increase amount of times ASOs patrol, transition from issuing criminal to civil citations, and invest in IT processes in order to issue citations more efficiently

Recommendation

Make issuing the citation more efficient

- Reserve some ASOs time to patrol freely, issuing citations as they go
- Transition some criminal citations to civil citations so that the ASO does not need to appear in court as often
- Create a DAS only docket to speed up the process for issuing civil citations

Consider investing in changes to citation follow-through to make compliance more likely

- Include citations on city utility bills
- Waive fines if compliance is demonstrated
- Create a court specifically for animals

Rationale

Today, the process to issue citations is time consuming

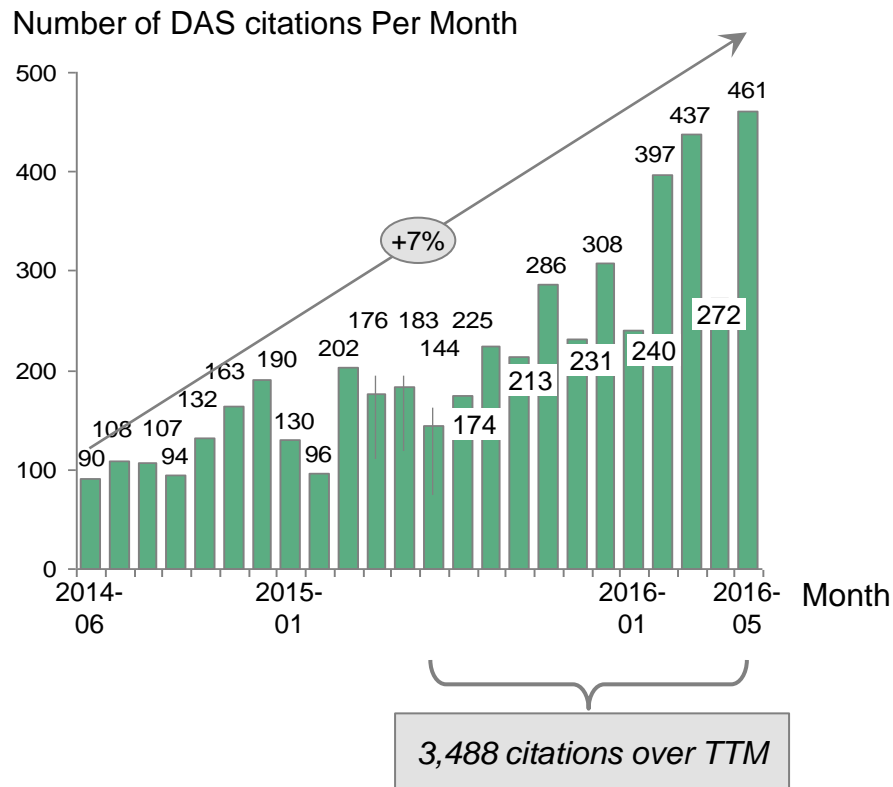
- Citations are difficult to issue while responding to 311 requests because often a 311 request does not warrant a citation
- Criminal citations require an ASO to be in attendance at court which takes up one day per ASO per month
- Civil citations take up to an hour to issue because the docket is crowded and inaccessible

After citations are issued, they are not fully followed through

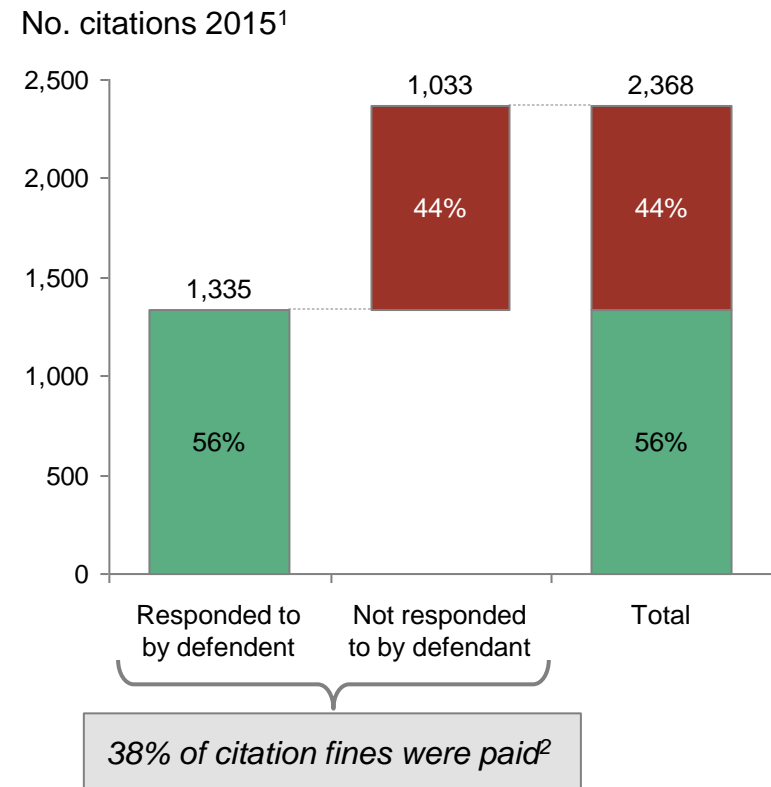
- 44% of citations are not responded to by the defendant

In last 24 months, DAS issued citations growing at ~7% monthly, however 44% did not receive a response

Monthly citations growing 7% monthly



44% of citations issued in 2015 were not responded to



1. For citations that had multiple outcomes classifications, included the outcome with the highest violation number with the assumption that that is the most recent outcome; 2. Maximum amount citation fines due was \$466,589.73, maximum total paid was \$177,661.37. In addition, some citations indicate that a defendant has not responded, but a citation has been paid; Note: TTM = trailing twelve months; Source: Citation data from municipal courts 05/2014 – 05/2016; BCG analysis

Overview: DAS should share loose dog service requests with organizations that actively capture loose dogs

Summary of research and findings

- **Context:** DAS receives 48,000 calls yearly, ~12,000 (24%) were loose dog calls that were not dispatched
- **Key takeaway:** Sharing information warns the public and provides information that street rescue teams can use.
- **Overall recommendation:** DAS should share information for loose dog calls with organizations that actively capture loose dogs

Recommendation

Information to be shared includes:

- Description of dog
- Location
- Time stamp

Information can be shared through email, text message, or social media platforms

Rationale

- In 2015, there were ~12,000 calls for loose dogs that were not dispatched
- Rescue and animal organizations in Dallas self-reported 6,000 dogs rescued from street in 2015¹
- ASOs are not dispatched for loose dog calls
- Warns public on loose dogs in neighborhoods
- Empowers street rescue teams with information they can use

1. Rescue and Animal Organization survey (n=72); Source: BCG's July 2016 Rescue and Animal Organization survey, BCG analysis

Agenda

Recommendation 3: Increase the number of positive outcomes for Dallas dogs, euthanizing only the sickest animals

Overview: DAS should enhance its digital marketing for both adoptions and transfers

Summary of research and findings

- **Context:** Today, digital marketing is an underutilized resource. The DAS website is not consumer centric. Pet profiles on PetHarbor and Petfinder are sparse. 2,000 dogs are posted to Facebook out of 20k intake
- **Key takeaway:** By improving digital marketing can increase positive outcomes by ~3,200
- **Overall recommendation:** Improve digital content by enhancing pet profiles (e.g., better photos and descriptions of dogs, better DAS website); Increase penetration of available websites such as Facebook, Petfinder, and Pet Harbor

Estimated Impact

Methodology

- For impact of improved online content (e.g., better photos and descriptions of pets online)
 - Estimate the lift that would result from improving the DAS dog profiles and DAS website and apply it to adoptions and transfers from 2015
- For impact of increased website utilization
 - Determine differences in LRR rate between dogs posted on Facebook and those not posted and apply lift to additional dogs posted on Facebook

Key Assumptions

- Better pet profiles can increase positive outcome 20%
- Facebook posts can increase LRR by 5 - 20 pps¹

Incremental ~3,200 adoptions/transfers

Estimated costs

Methodology

- Estimate recurring labor costs
- Estimate investments needed to enhance digital content including the purchase of cameras and tablets to capture and post better pet profiles and a DAS web design

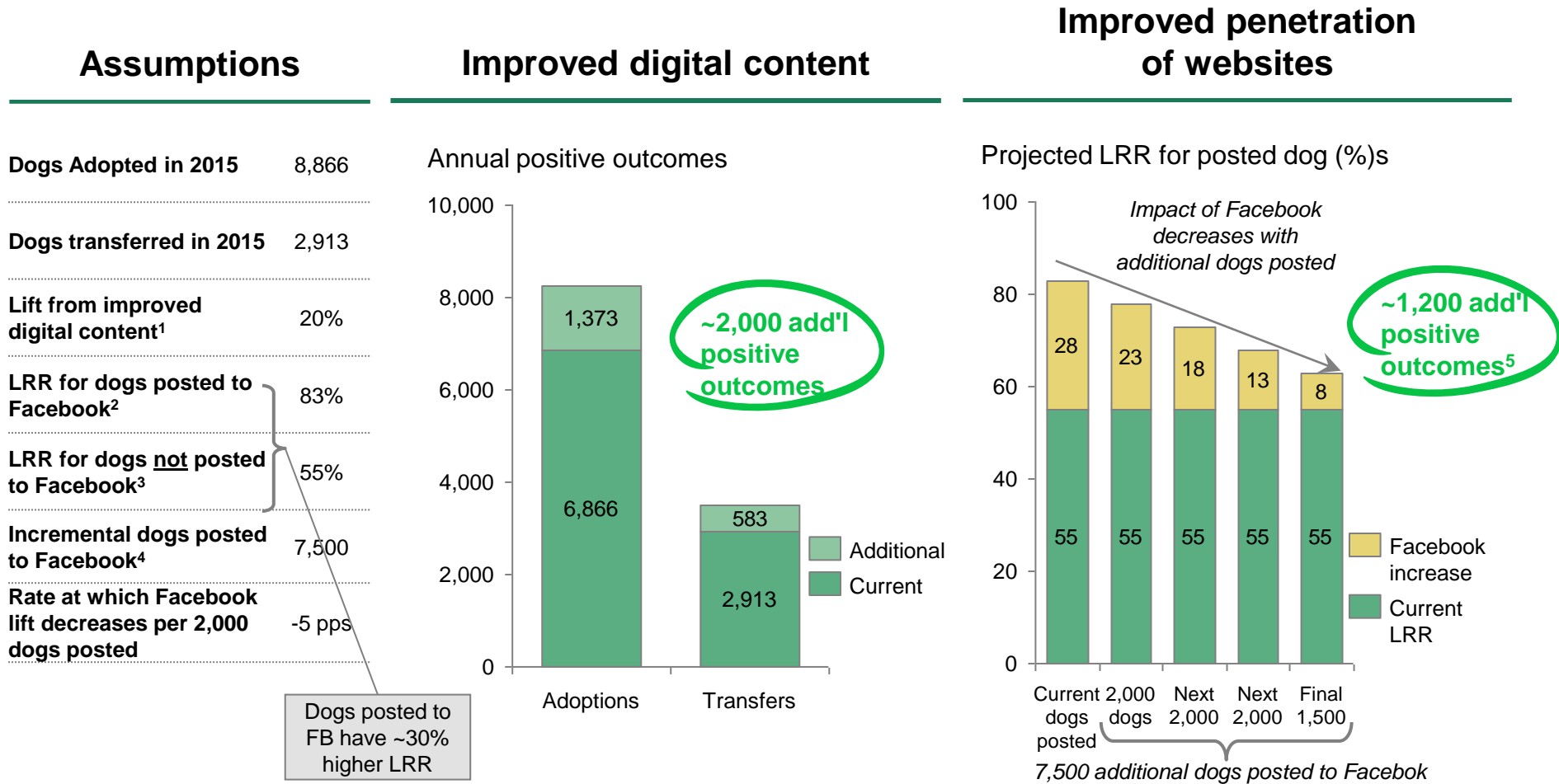
Key Assumptions

- 15 minutes to improve a dog profile; 10 minutes to post and update one dog on Facebook
- \$60k for a DAS IT system upgrade
- \$4k for cameras and laptops to improve profiles
- Incremental cost for S/N and vetting = \$96
- Staff to photograph dogs = \$36k yearly
- Staff to aid adopters = \$20.8k yearly

Upfront costs: ~\$60,000
Recurring costs: ~\$338,000

1. 5 pps is conservative estimate; Note: Sources and assumptions listed in detail on each relevant backup slide

Estimated impact: Optimizing digital marketing can increase positive outcomes by ~3,200 dogs annually



1. Approximated from expert interviews with other animal shelters, BCG experience and the articles "An Evaluation of the role the internet site Pet Finder plays in cat adoptions" by Workman and Hoffman and "Speed of Dog Adoption: Impact of Online Photo Traits" from the *Journal of Applied Animal Welfare*; 2. Includes all dogs who were adopted, transferred, or euthanized with intake dates between 6/1/2015 and 5/31/2016; 3. Includes all dogs who were adopted, transferred, or euthanized and were also posted on Facebook between 6/1/2015 and 5/31/2016; 4. Number of dogs euthanized but not posted on Facebook in the last 12 months 6/1/2015 and 5/31/2016 is ~7,000, and additional dogs will be brought in; 5. Additional positive outcomes can be achieved by posting more dogs to Petfinder and Pet Harbor, however, to be conservative, did not include in this estimate; Source: DAS Chameleon database; Records of Dallas Dogs In Need of Transfer; Scholarly articles; BCG analysis

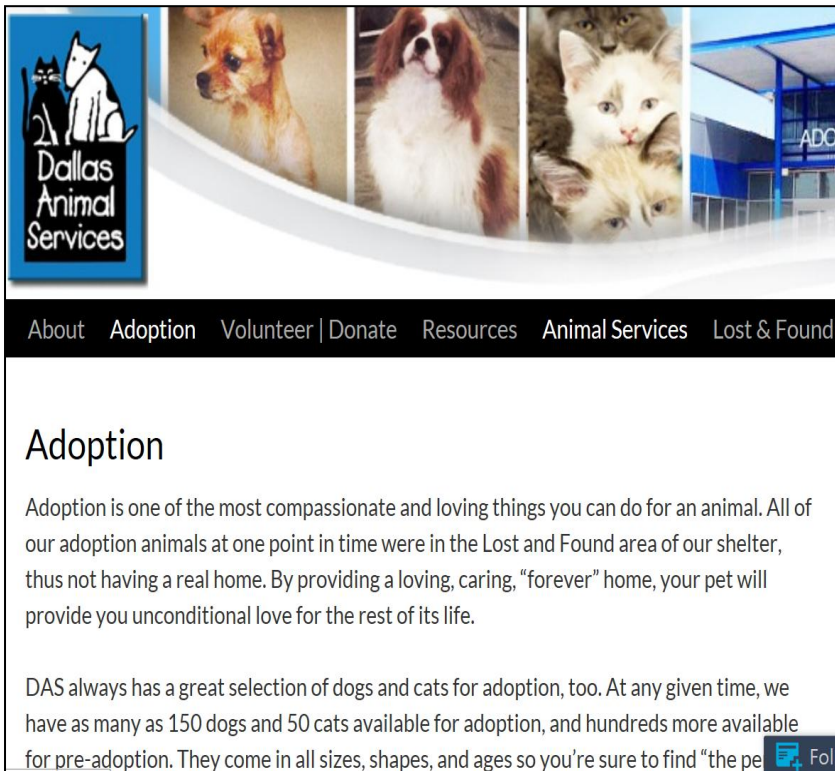
Resource requirements : Optimizing digital marketing should cost ~\$60k upfront and \$338k annually

Assumptions		Costs for optimizing digital marketing programs	
Minutes to create a good dog profile ^{1,2}	15 min	Upfront investment	
Annual number of profiles ³	18.5k	DAS IT system upgrade	~\$60,000
Time needed to create better profiles	4,625 hrs	Recurring costs	
Minutes to post and update one dog on Facebook ²	10 min	3 tablets to take pictures and write dog descriptions	~\$3,000
Additional dogs posted to Facebook/other websites ⁴	7.5k	1 laptop to email or upload any information to Chameleon	~\$1,000
Time needed to post on Facebook	1,250 hrs	2.8 employees to create better pet profiles and post on Facebook ^{6,7}	~\$129,000
Employees needed to photograph	2.8	Cost of spaying and neutering and vetting adopted dogs ⁸	~\$192,000
Employees needed to help adopters	2	2 employees to aid potential adopters navigate kennels ⁹	~\$42,000
Number of incremental adoptions ⁵	1,400	Total	~\$338,000
Incremental cost for S/N and vetting ¹⁰	\$96		

1. Based on averages from volunteers that currently photograph dogs; 2. Based on interviews with DAS employees; 3. 2015 intake was 20,807, and 88% of these dogs were transferred, adopted, or euthanized (~18.5k); 4. Total euthanized dogs not on Facebook in 2015 = ~7,500; 5. Based on assumptions from previous slide; 6. Assumes one FTE works 2,080 hours a year and makes \$36k; 7. Determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits; 8. Assumes 2,000 dogs are adopted; 9. Assumes one FTE makes \$20,800 yearly; 10. Estimated incremental cost of adoption, inclusive of S/N and vaccine costs; Source: Interviews with DAS employees and volunteers, Chameleon, representative, database automator employees, Texas Tribune; BCG analysis

Current state of DAS digital adoption

Link to pictures of pets are buried at the end of the webpage



Dallas Animal Services

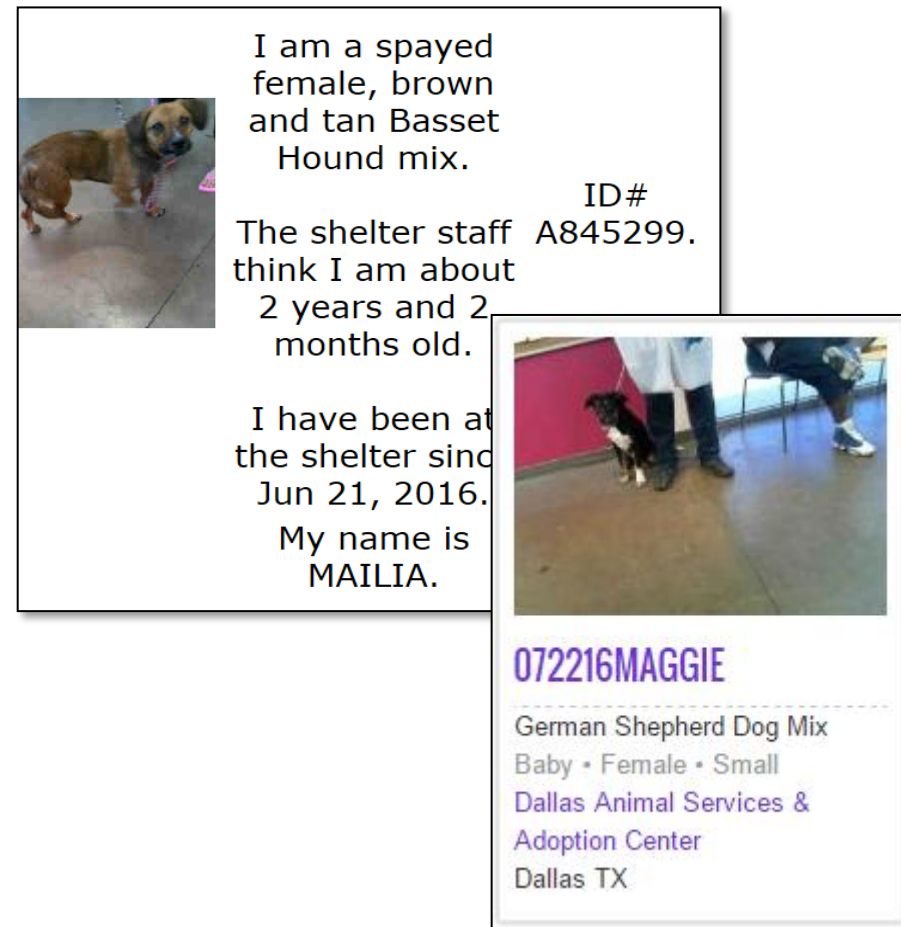
About Adoption Volunteer | Donate Resources Animal Services Lost & Found

Adoption

Adoption is one of the most compassionate and loving things you can do for an animal. All of our adoption animals at one point in time were in the Lost and Found area of our shelter, thus not having a real home. By providing a loving, caring, “forever” home, your pet will provide you unconditional love for the rest of its life.

DAS always has a great selection of dogs and cats for adoption, too. At any given time, we have as many as 150 dogs and 50 cats available for adoption, and hundreds more available for pre-adoption. They come in all sizes, shapes, and ages so you’re sure to find “the pe [Foll](#)

Descriptions sparse, pictures poor



I am a spayed female, brown and tan Basset Hound mix.

ID# A845299.

The shelter staff think I am about 2 years and 2 months old.

I have been at the shelter since Jun 21, 2016.

My name is MAILIA.

072216MAGGIE

German Shepherd Dog Mix
Baby • Female • Small
Dallas Animal Services & Adoption Center
Dallas TX

Potential to customize Pet Harbor profiles and use as adoption homepage

Home > Adopt > Dogs

[E-mail](#)
[Print](#)
[Tweet](#)
[Share](#)
60

Adopt a Dog

Any Gender ▾ Any Size ▾

Luke

6 years | Male

Princess

6 years | Female

Meet Jack!

Jack is a big, young, exuberant hound mix! He loves to get his exercise, either chewing on a toy or romping in the yard or going for a long walk. One of his favorite toys is a jolly ball - he rolls it around with his paws.

01 Yrs
 00 Mos
 Neutered
 Male

Jack is very friendly, but doesn't realize that most people don't want to be greeted by being jumped up on. With a big boy like Jack, jumping up is a lot for kids, so he is looking for a home with sturdy teens and adults. His previous owner never trained him to walk properly on the leash, so as ... Click my picture to read more about me.

APOLLO - ID#A008059

My name is APOLLO.

I am a neutered male, white and black Terrier mix.

The shelter staff think I am about 2 years and 1 month old.

I have been at the shelter since Dec 22, 2015.

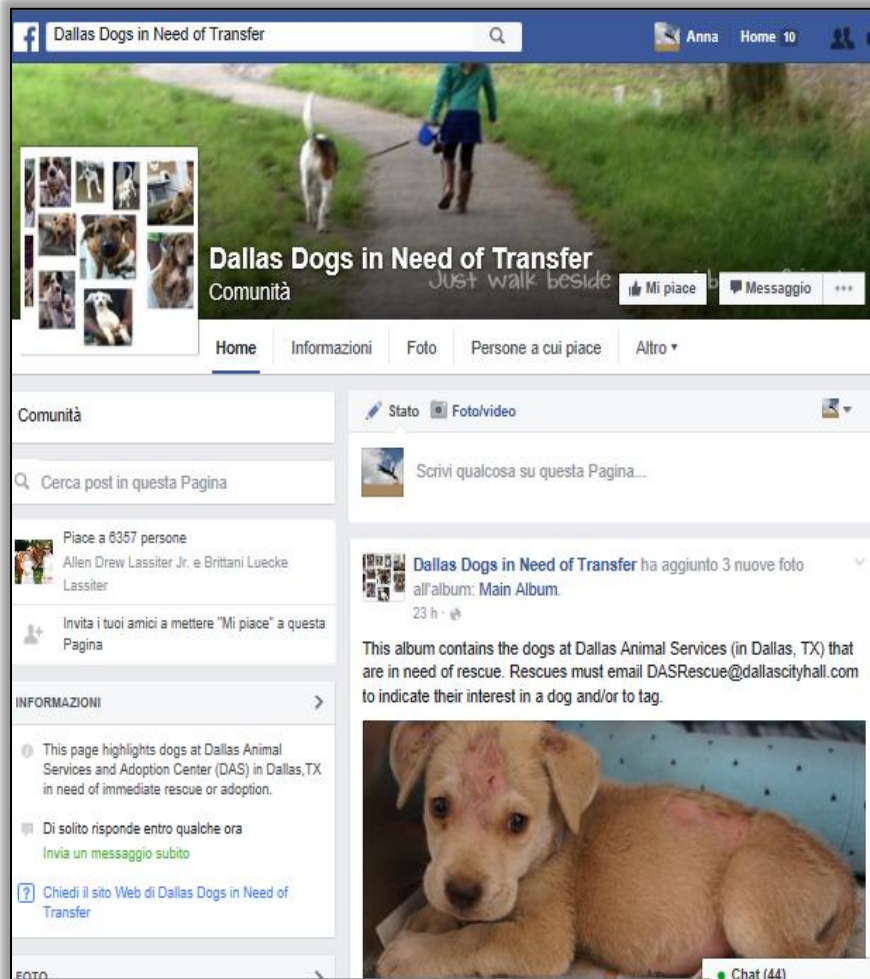
This information was refreshed 54 minutes ago and may not represent all of the animals at the Animal Rescue Fund of the Hamptons.

Shelter Staff made the following comments about this animal:

BORN: 6/2014
 SEX: Neutered Male
 COLOR: White & Black
 BREED: Terrier
 WEIGHT: 76 lbs
 CAME TO ARF: Owner Surrender

PERSONALITY: Apollo was surrendered to us when his owners were no longer able to care for him. He is an energetic boy who would benefit from obedience training. He needs an experienced owner in an adult only home.

Dallas Dogs in Need of Transfer (DDINT) on Facebook was established by a single volunteer...



Features dogs in need of transfer by a rescue org. (~10% of total DAS dog intake)

- Need special care for health or behavior
- Healthy in the shelter for 10+ days

One volunteer maintains site during 18 hrs/week

- Aligns priority list of dogs with transfer coordinator
- Photographs each dog individually (3-10 minutes)
- Takes notes on dog
- Uploads photos and information at home
- Responds to posts



... and DDINT increases likelihood of a positive outcome

Predicted that posting incr. positive outcome by up to 4x¹



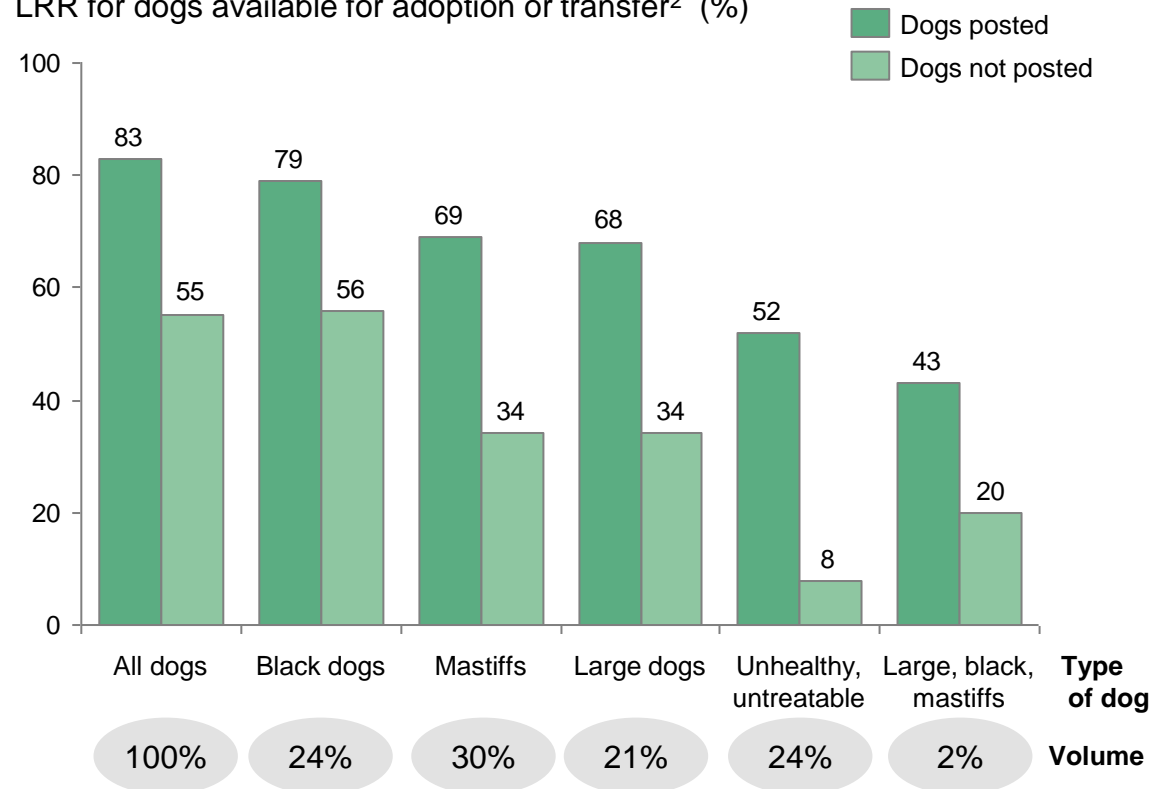
A medium, treatable, multi-colored mastiff is **4.6x** more likely to have a positive outcome if on Facebook



A black, treatable-rehabilitatable puppy setter/retriever is **4.4x** more likely to have a positive outcome if on Facebook

Indeed, dogs posted on Facebook have higher LRR

LRR for dogs available for adoption or transfer² (%)



1. Ran binary logistic regression on transfer/adoption. Included all DAS dog intake from 6/1/2015-5/31/2016. Included color, breed, size, Facebook posted dummy variable, and health condition. Naeglekirch R-square of .3-.35; 2. Includes all dogs who were adopted, transferred, or euthanized between 6/1/2015 and 5/31/2016; Source: DAS Chameleon database; BCG analysis; DDINT data; BCG analysis

Overview: Expanding its retail presence via an additional adoption location

Summary of research and findings

- **Context:** EAC site in North Dallas operated through partnership with PetSmart Charities. Though EAC site has ~85% fewer dog adoption kennels than Westmoreland, it accounts for ~25% of all DAS dog adoptions
- **Key takeaway:** DAS can increase its number of adopted dogs by ~1,300 per year, while incurring a relatively small cost of ~\$425k yearly
- **Overall recommendation:** Work with a retail partner (e.g. PetSmart charities, Petco, etc.) to extend partnership to include additional retail site in North Dallas

Estimated Impact

Methodology

- Analyze current EAC adoption performance by looking at adoptions per kennel per year
- Project out yearly performance of new EAC site as conservative percentage of current EAC performance

Key Assumptions

- EAC % of yearly DAS adoptions (2015) = 25%
- Number EAC adoption kennels = 18
- EAC adoptions per kennel per year = ~95

Incremental ~1,300 dogs adopted / year

Resource Requirements

Methodology

- Analyze current EAC location cost structure
- Model new adoption site on current EAC cost base

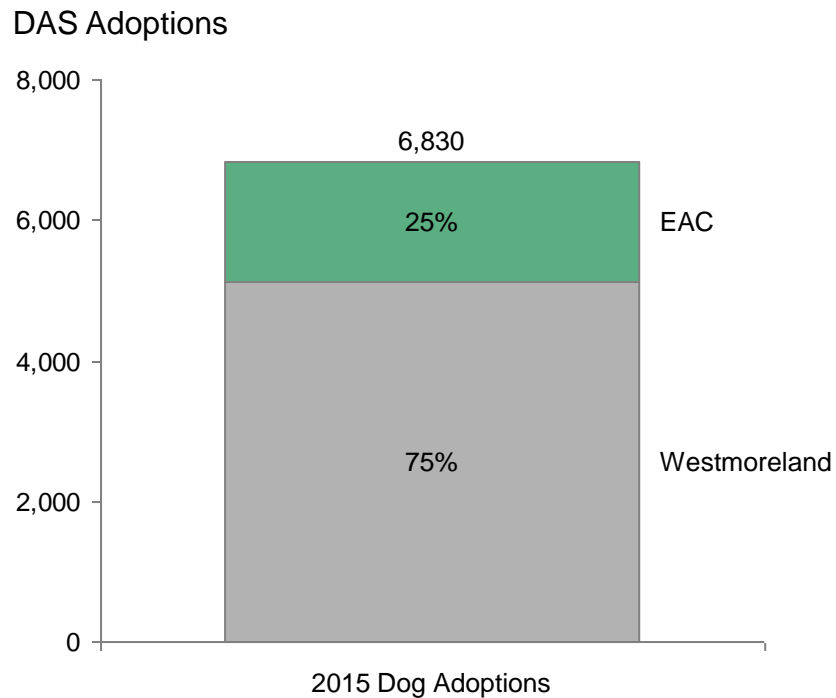
Key Assumptions

- Structure of new retail partnership = Same as existing
- Staffing/resourcing of new = Same as existing
- Primary cost structure for additional location includes: full time salary, full time benefits, temp labor
- Incremental cost for S/N and vetting = \$96

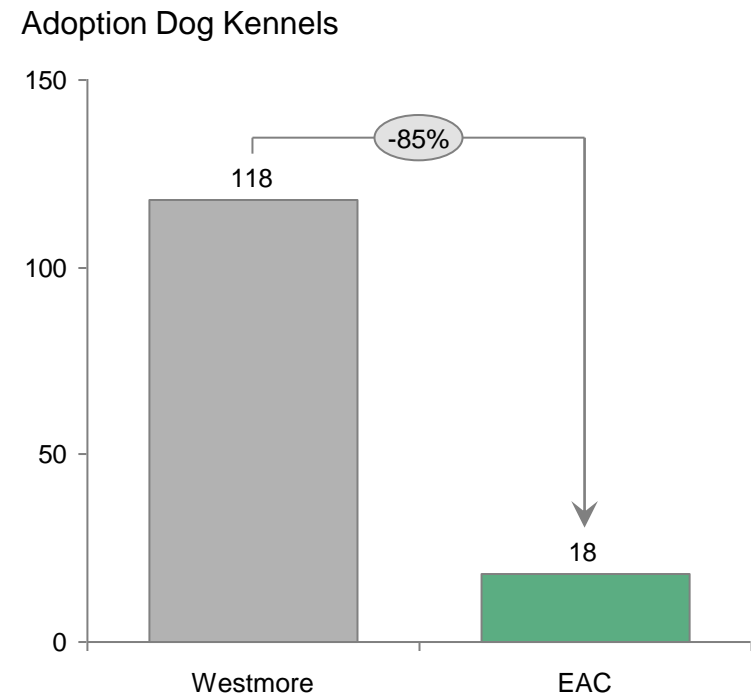
Incremental cost of ~\$425k / year

Backup: Current EAC site accounts for ~25% of all DAS dog adoptions

EAC location accounts for 25% of all DAS dog adoptions...

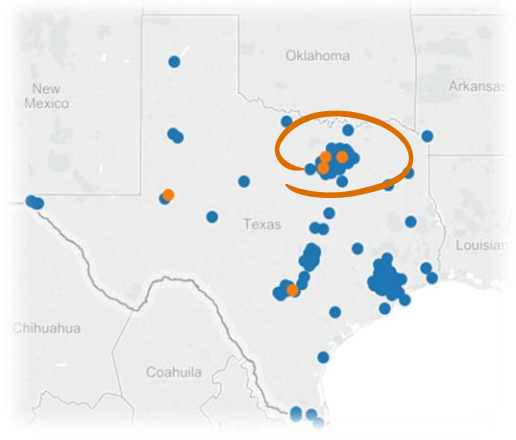


...even though EAC has ~85% fewer adoption kennels than main location



Current landscape of Texas EACs presents opportunity to open additional DAS adoption site serving city of Dallas

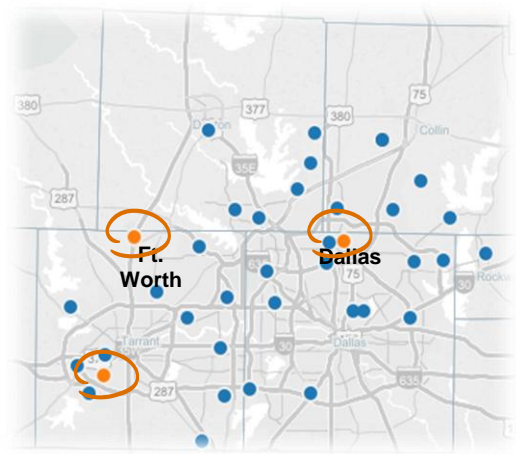
There are three EAC locations operating in North Texas...



- 3 in North Texas, 1 in West and 1 in South Texas

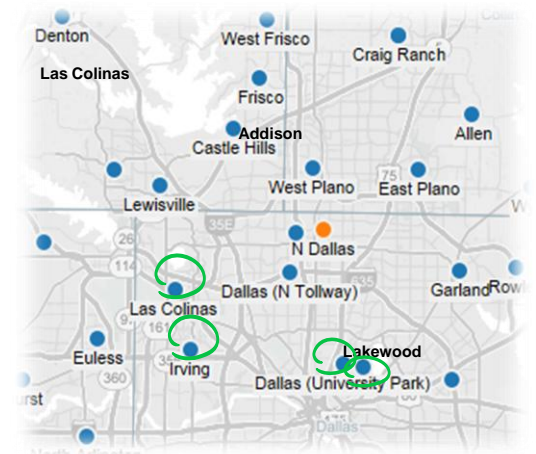
- PetSmart location – no EAC
- PetSmart location – with EAC

...two are run by Ft Worth Animal Control, while DAS runs just one site...



- Only Dallas location is DAS EAC in North Dallas
- *"City of Fort Worth Animal Care and Control" shelter operates two EACs*

... which presents an opportunity to open new DAS adoption site in Dallas



- Current EAC location in zip with ~17k human households
- Example available locations in zip codes with comparably sized populations include: **University Park, Irving, Lakewood, Las Colinas**

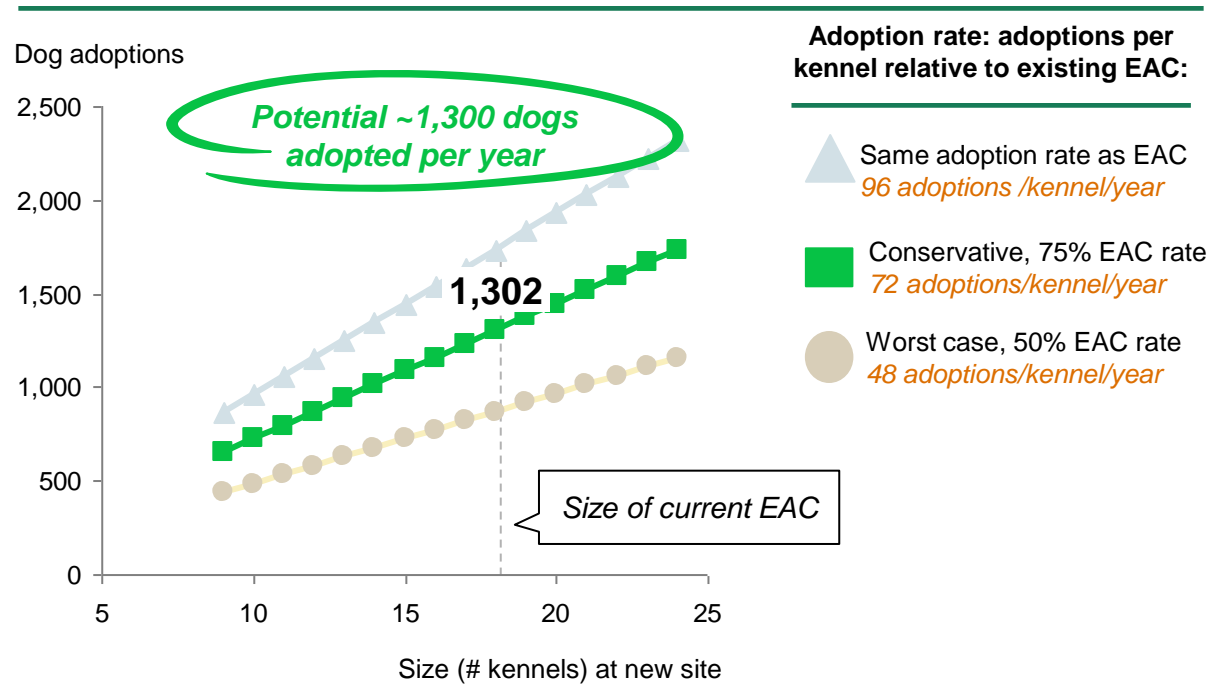
Potential to open additional DAS adoption site based on site availability and precedent set by Ft. Worth EACs

Estimated impact: Establishment of an additional adoption site could increase adoptions by ~1,300 dogs per year

Key assumptions

Total 2015 DAS Adoptions ¹	6,830
EAC % of 2015 DAS Adoption ¹	0.25
EAC 2015 Adoptions ¹	1,736
Number EAC Adoption Kennels 2015	18
EAC 2015 Adoptions per Kennel per year	96

Impact dependent on number of kennels and adoption rate



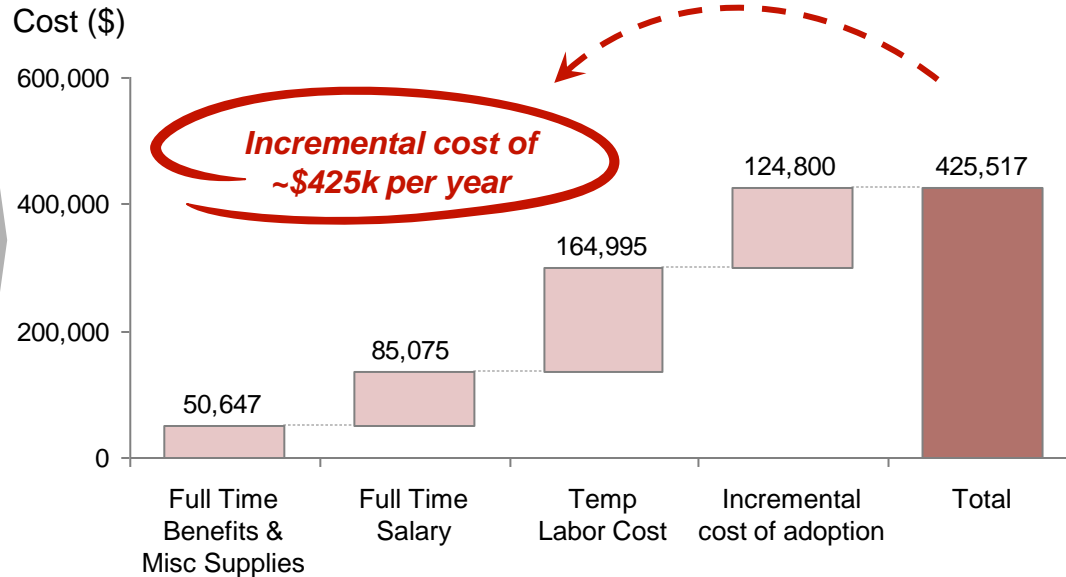
1. Statistic from Chameleon data ; Source: DAS Chameleon Database, Interviews with EAC staff; BCG analysis, BCG analysis

Resource requirements: New adoption site estimated to incur an incremental cost of ~\$425k per year

Key assumptions

Structure of new adoption partnership	Same as existing
Size/ staffing of new site	Same as existing
Costs to operate new site	
• 2 full time salaries ¹	\$85,075
• Benefits & supplies ¹	\$50,647
• 5 Temp laborers ¹	\$164,995
Incremental cost of dog adoption²	\$96/dog

Resources required driven primarily by labor cost



Requirements dependent upon nature of partnership

- **Construction fee** – Current partnership for EAC shields DAS from "fixed cost" of opening/constructing new facility. Incurring this expense would greatly increase required resources
- **Facility fee/rent**– Current EAC partnership similarly insulates DAS from any rent expense or facility fee for operating new site. If terms were to be renegotiated, potential for variable cost increase

¹ Costs derived from FY'14-'15 DAS Expenditures and are fully loaded; ². Estimated incremental cost of adoption, inclusive of S/N and vaccine costs; Source: FY '14-'15 Expenditures, DAS Chameleon Database, BCG analysis

Overview: Expanding its retail presence via extended adoption hours

Summary of research and findings

- **Context:** DAS currently operates its Westmoreland adoption center 50hrs/week, resulting in a total of ~6,400 animal adoptions each year
- **Key takeaway:** DAS can increase its number of adopted dogs by ~520 per year by adding 12 incremental adoption hours at a total cost of ~\$81k/year
- **Overall recommendation:** Invest resources in expanding adoption center hours as a direct method of increasing positive outcomes

Estimated Impact

Methodology

- Analyze number of animals adopted and adoption center service hours across peer animal shelters
 - Extrapolate potential to increase dog adoptions by increasing adoption hours

Key Assumptions

- 80% of animals adopted at DAS are dogs
- DAS operates 6 days/wk, 52 days/yr

Incremental ~520 dogs adopted / year

Resource Requirements

Methodology

- Break out distinct components of incremental cost associated with increasing dog adoption by adding to adoption center service hours
 - Incremental labor cost: estimate labor cost of incremental hours
 - Incremental adoption cost: cost of preparing a dog for adoption (S/N and vaccines)

Key Assumptions

- Incremental cost for S/N and vetting = \$96
- Adoption desk staffed by 2 workers @ \$15/hr
- Additional staff to aid adopters @ \$10/hr

Incremental cost of ~\$81k / year

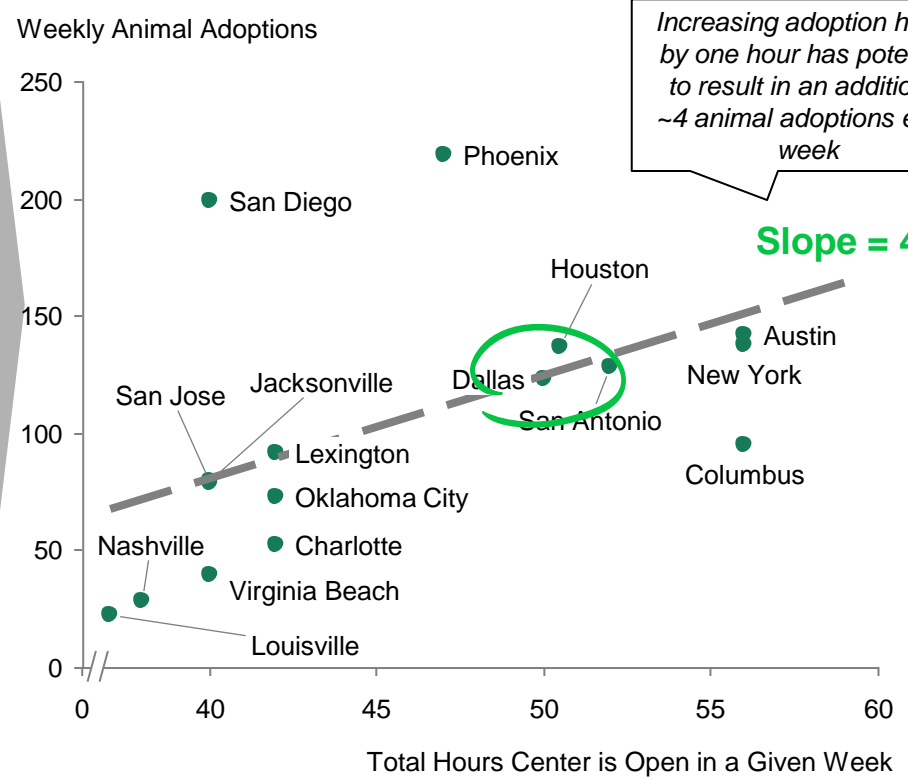
Estimated impact: Extending adoption hours could result in an additional ~520 dogs adopted per year

Key assumptions...

% of adoptions that are for dogs 80%¹

Weeks of operation per year 52

Adoption hours vs. Weekly animal adoptions



Impact

4.2
More animals adopted each week, per add'l hour

1/4
Conservative adjustment for less productive hours²

12
Additional hours of adoption per week

80%¹
Of animals adopted at DAS are dogs

52
Weeks per year

~520 dogs/yr
Increased adoption of dogs per year

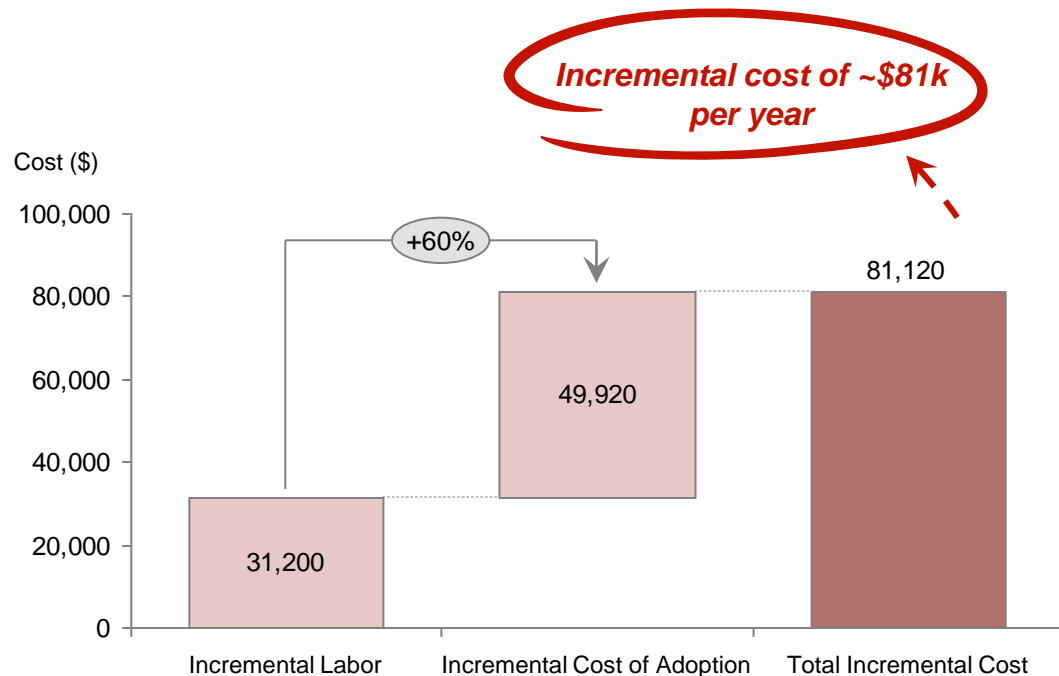
1. Statistic from Chameleon Database; 2. Conservatively estimate that some hours of day are less productive for adoptions (morning and night hours); Source: DAS Chameleon database, Shelter websites, BCG analysis

Resource requirements: Extending adoption hours would incur a cost of **~\$81k per year**

Key assumptions...

Incremental cost of dog adoption at main location ¹	\$96/dog
Num workers at adoption center	2
Adoption Center labor	\$15/hr
Adoption center additional hours a week	12
Additional staff to aid adopters	2
Adopter aid labor	\$10/hr
Adopter aid additional hours a week	12

Incremental costs due to extended adoption hours



12 incremental hrs/wk
for 2 workers @\$10/hr

12 incremental hrs/wk
for 2 workers @15/hr

~520 additional dogs/yr
x incremental \$96 per
dog for adoption

1. Estimated incremental cost of adoption, inclusive of S/N and vaccine cost; 2. Yearly salary of Dallas Animal Services Coordinator– Texas Tribune Govt Salaries Explorer; Source: DAS Chameleon Database, Texas Tribune Government Salaries Explorer, BCG analysis

Overview: DAS should establish a "Transfer-on-Intake" program with a single high-volume transfer partner

Summary of research and findings

- **Context:** Redirecting "adoptable" dogs to high volume transfer partners presents an opportunity to benefit the community/dog population, DAS, and transfer partner by efficiently re-allocating adoption resources
- **Key takeaway:** Opportunity exists to transfer ~1,000 dogs from DAS OTC intake to various high volume transfer partners in DFW each year
- **Overall recommendation:** Coordinate to establish "Transfer-on-Intake" partnerships with key DAS transfer partners

Estimated Impact

Methodology

- Analyze 2015 DAS OTC intake by dog type and health status to identify high priority dogs for potential redirection
- Project percentage of available dogs that would be "tagged" for rapid redirection by transfer partners

Key Assumptions

- 2015 Dog Owner Surrender = 6,624
- 2015 Puppy Owner Surrender = 2,135
- Conservative percentage "Tagged" = 50%
- Average Kennel Stay = 7.6 days

~1,000 dogs transferred
~7,700 days of "freed"
kennel day capacity

Resource Requirements

No cost incurred by DAS

Partner shelters incur cost of program:

- Labor cost for resource staffed in DAS to identify redirects
- Transport cost for transfer from DAS to partner shelter
- Any intake/vet costs for redirected dogs

Transfer-on-Intake program allows high volume transfer partner to pick up surrendered dogs before DAS intake

From a dog population and DAS capacity management perspective, **one of best options for a dog on its way to DAS OTC intake is to be turned away at the door and placed at high volume partner shelters around DFW**

- Benefit to animals – avoid days in DAS dog population, decreased likelihood of "last option" euthanasia
- Benefit to DAS – fewer dogs in general DAS population, decreased cost to care for and place dogs
- Benefit to transfer partners – increased number of dogs available to adopt or foster

"Transfer-on-Intake" methodology allows key, high volume transfer partners to have "first pick" on animals brought OTC to DAS

- Transfer partner staffs desk/person in OTC area to evaluate and hand pick select animals to hold and adopt them through their shelter's services
- If necessary, transferred animals can live out stray hold time at partner shelter

Surrendered dogs prioritized for potential redirection based on low risk of being "owned" and high adoption potential

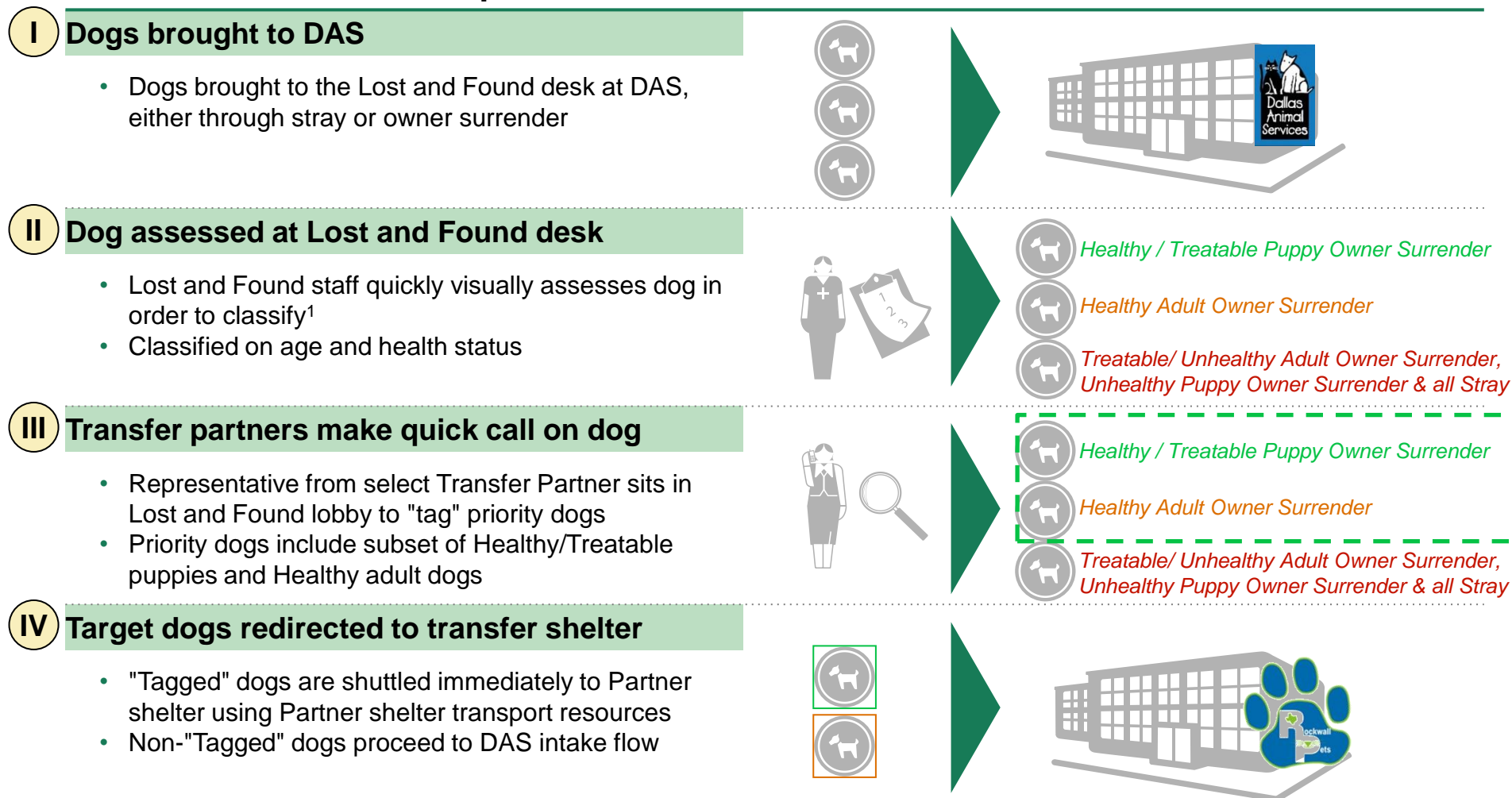
		<div style="display: flex; justify-content: space-between; align-items: center;"> Potential for adoption of animal Risk of redirecting an "owned" animal </div>		
		Owner Surrender Puppy	Owner Surrender (Excl. Puppies)	OTC Stray
Criteria for Fit w/ "Transfer-on-Intake" Program	Risk of transferring an owned animal	Owner Surrenders are at no or minimal risk of being reclaimed as a lost dog	Owner Surrenders are at no or minimal risk of being reclaimed as a lost dog	Stray dogs turned in are potentially lost or escaped, high risk of being reclaimed as a lost dog
	Potential for adoption of animal	Puppies perceived as easier to adopt, more likely to be easily accepted by partners	Adoption potential for adult owner surrenders highly variable based on health status and age	OTC strays are potentially roaming or feral dogs with little previous vet care, likely significant vet care required before adoption
	Overall prioritization	Prioritize healthy & treatable for Rapid Redirection	Prioritize healthy for Rapid Redirection	Do not prioritize for Rapid Redirection program

Rapid Redirection prioritizes Healthy & Treatable surrendered puppies and Healthy surrendered adult dogs

Backup: General process steps for Rapid Redirect

Using Rockwall Pets as an example high volume program partner

Process steps



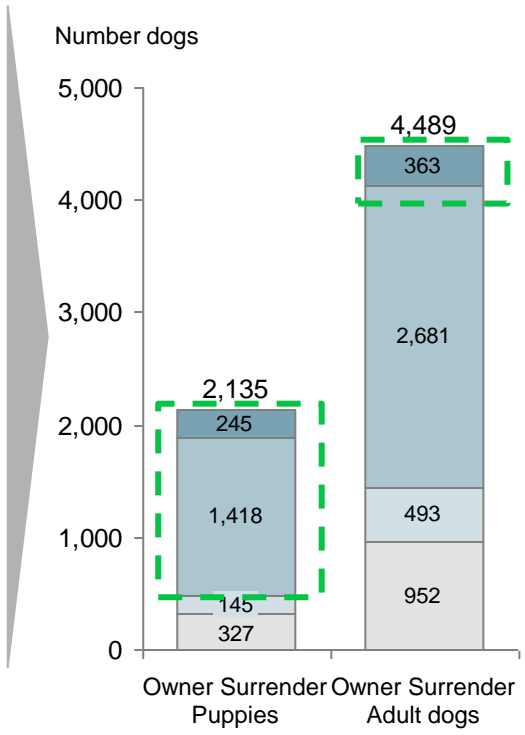
1. Leverage Asilomar rankings for health assessment; Source: BCG analysis

Estimated impact: Establishment of "Transfer-on-Intake" has potential to result in ~1,000 incremental transfers per year

Key assumptions

2015 Owner Surrender Dog ²	6,624
2015 Owner Surrender Dog – Puppy ²	2,135
2015 Owner Surrender Dog – Adult ²	4,489
Conservative % "tagged" for redirect	50% ¹

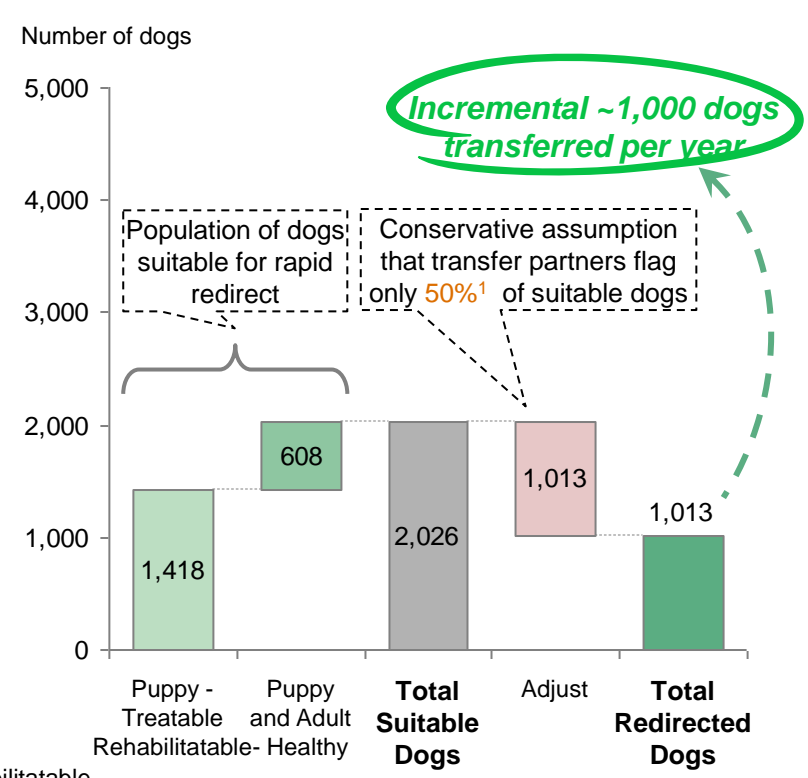
I 2015 Owner Surrender Dog Intake Assessments



Unhealthy & Untreatable
 Treatable-Manageable
 Treatable-Rehabilitatable
 Healthy

Prioritized for Transfer-on-Intake

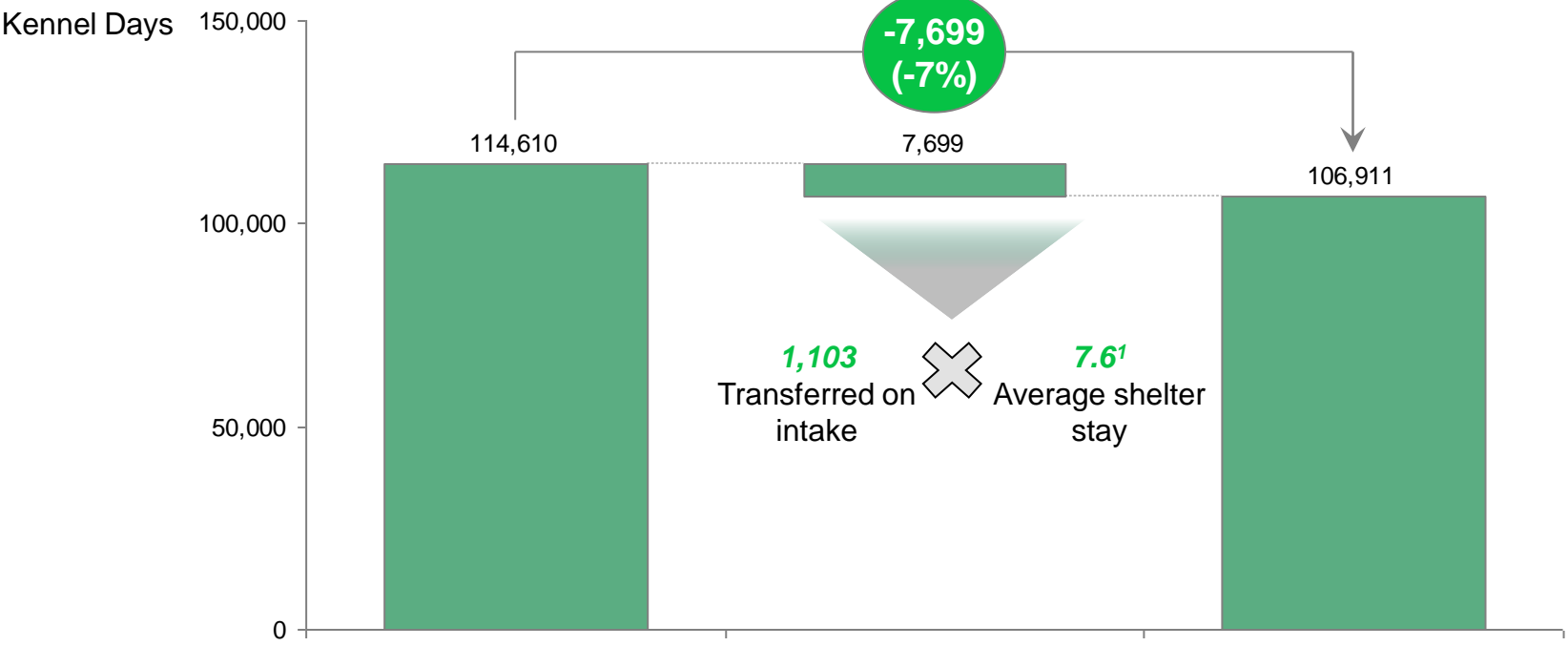
III Projected transfers dependent upon OTC assessments



1. % of suitable dogs flagged < 100% due to practical considerations for logistics of dog intake (some dogs may need more time to process/document), flagging (Transfer Partner rep can't feasibly inspect every OTC dog), and staffing (more feasible to have a Transfer Partner resource staffed for some portion of the day) 2. Statistics from DAS Chameleon Database; Source: DAS Chameleon Database; BCG analysis

Backup: Transfers from "Transfer-on-Intake" program also result in ~7,700 day decrease in kennel days utilization

Projected Impact of "Transfer on Intake" to Shelter Kennel Day Utilization (2015)



Note: Assuming 100% utilization of kennel days in 2015

314 available general DAS kennels x 365 days per year

1. Statistic from DAS Chameleon Database; Note: Assuming 100% kennel day utilization in 2015 as base; Source: DAS Chameleon Database; BCG analysis

Overview: DAS should segment relationship management of transfer partners by size and support

Summary of research and findings

- **Context:** Currently, the transfer coordinator spends majority of time reacting to transfer partners' questions or tagging/pulling dogs and does not proactively build relationships or assess partners' needs
- **Key takeaway:** DAS can better address needs of transfer partners, increasing partner satisfaction with DAS and, as a result, increase the number of transfers by ~570 dogs
- **Overall recommendation:** Apply best B2B sales practices to 1. segment partners by size and need; 2. Address aggregate needs of the smaller partners, 3. Address tailored needs of larger partners

Estimated Impact

Methodology

- Map satisfaction levels of rescue organizations to the number of dogs transferred from DAS
- From the rescue and animal organization survey, determine what DAS can do to increase satisfaction levels for large vs. small partners
- Estimate the number of incremental transfers that would result from a marginal increase in satisfaction

Key Assumptions

- Key account management will increase satisfaction of current partners

Incremental ~570 transfers / year

Estimated costs

Methodology

- Analyze current activities of transfer coordinator
- Identify how many more transfer coordinators necessary for account management

Key Assumptions

- 1 transfer coordinator @ \$51k yearly

Incremental cost of \$51,000 / year

Estimated impact: Segmenting partners could result in an additional ~570 transfers annually

Assumptions

2016 rescue org. dog intake¹ 46,000

% Rescue dogs pulled from city shelters² 32%

2016 dogs pulled by rescues from city shelters 14,720

Principles of account management:

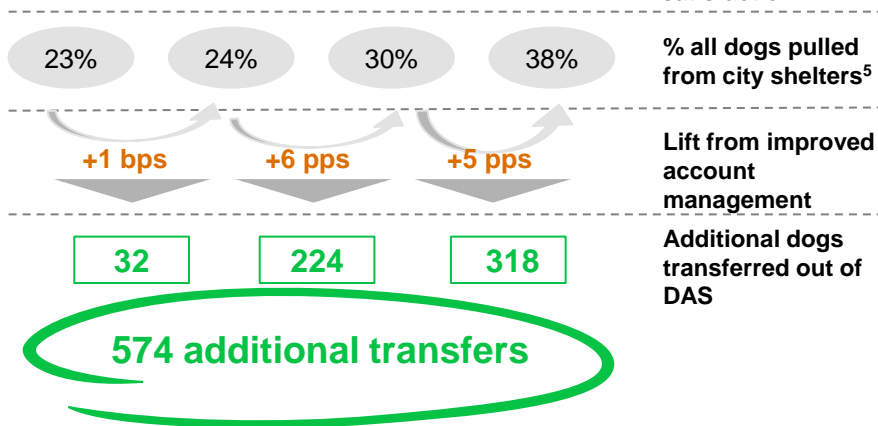
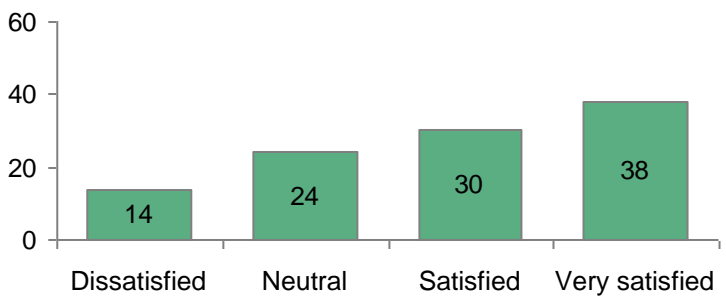
Focus resources on the big key, accounts by providing higher touch service

Improve relationships with smaller accounts by targeting common needs

Tailor all relationships using customer data

Apply account management principles to improve DAS satisfaction

Avg. % of dogs pulled from city shelters that are from DAS³



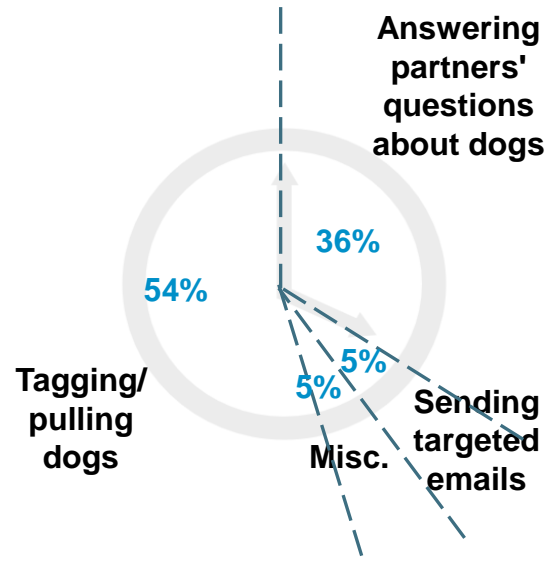
1. According to rescue survey, 58 orgs. have had a total intake of 21,483 YTD. Multiplied this this by 2 and rounded up to 46k to account for the orgs. that did not take this survey;2. According to the rescue survey, 32% of all dog intake for rescues comes from city shelters, which is an estimated 14,720 dogs for 2016;3. Average share of shelter dogs from DAS was determined from the rescue survey;4. Based on the response to the rescue survey question: *I am satisfied with DAS overall. (n=46)* "Very satisfied" is not portrayed because no dog intake was associated with those respondents; 5. Percentage of total intake reported by survey respondents in each of the satisfaction categories; Source: Rescue survey (n=58; DAS Chameleon database; interviews with rescue organizations; BCG best practices in Key Account Management; BCG analysis

Resource requirements: Additional FTE will cost ~\$51k annually

Assumptions

10 large partners require an hour a week of time	20 hrs/ wk.
All small partners require 2 hours a day of time	20 hrs/ wk.
Total FTEs required for account management	~1
Transfer coordinator salary	\$51k ¹
Total costs	\$51k

Today, transfer coordinator spends time reacting



"There are so many administrative tasks to do. We need one person who can really focus on partnerships.."

With additional employee, time to manage accounts

Spend half of week on proactive outreach and custom needs for 10 large partners

- E.g., develop specialized reports
- E.g., Develop MOU agreements with partners

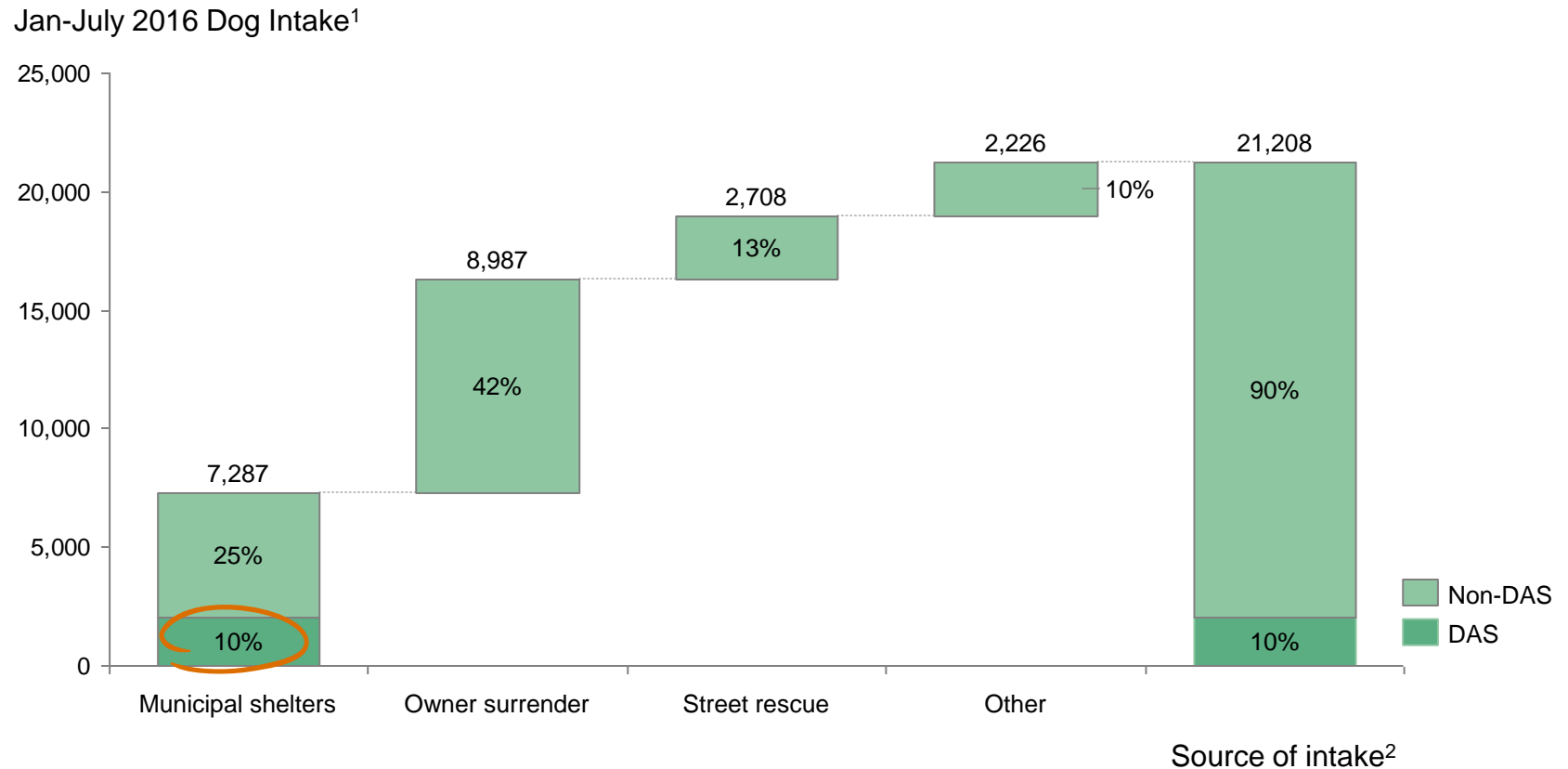
Spend half of week on addressing common needs and processes for smaller partners

- E.g., streamline tagging process

1. Determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits; Source: Interviews with DAS employees; BCG best practices in Key Account Management, Texas Tribune; BCG analysis

Rescue organizations take 35% of all of their intake from municipal shelters—10% from DAS and 25% from others

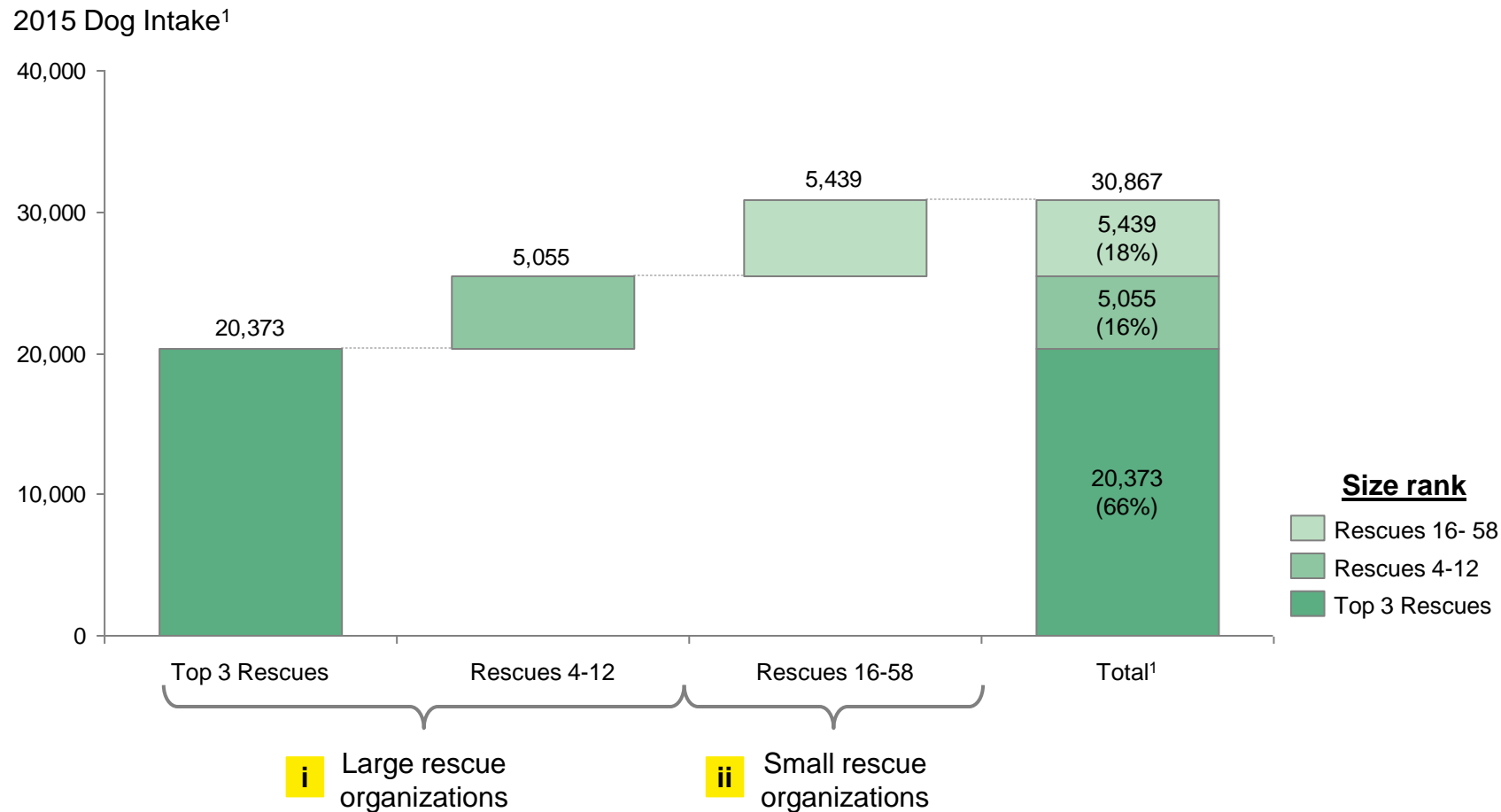
Reported January – July 2016 dog intake of rescue organizations



1. According to rescue survey, 58 orgs. have had a total intake of 21, 208 as of the time of this survey; Question: What percentage of your 2016 intake came from [source].... (n=48); Source: Rescue and Animal Organization survey (n=72); BCG analysis

Dallas rescue organization landscape concentrated with large organizations rescuing majority of dogs

Reported 2015 dog intake of rescue organizations

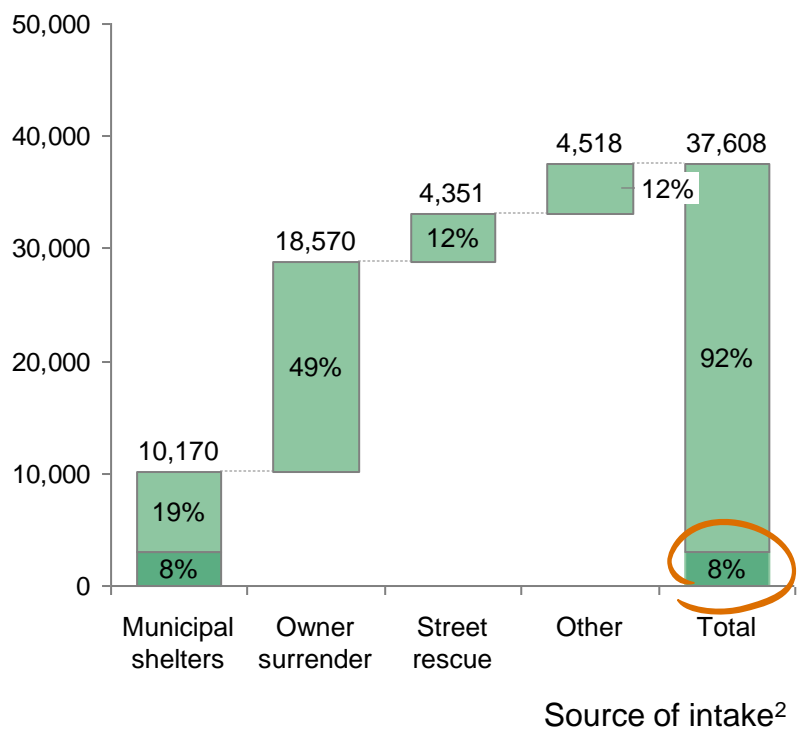


1. Includes all rescue organizations that took the Rescue and Animal Organization Survey; Question: Approximately how many dogs did your organization take in during 2015? (n=58); Note: Gini coefficient is .76; Note: Large rescue organizations defined as having 2015 intake > 40; Source: Rescue and Animal Organization survey (n=72); BCG analysis

Large rescues get 8% of their dogs from DAS, small 17%

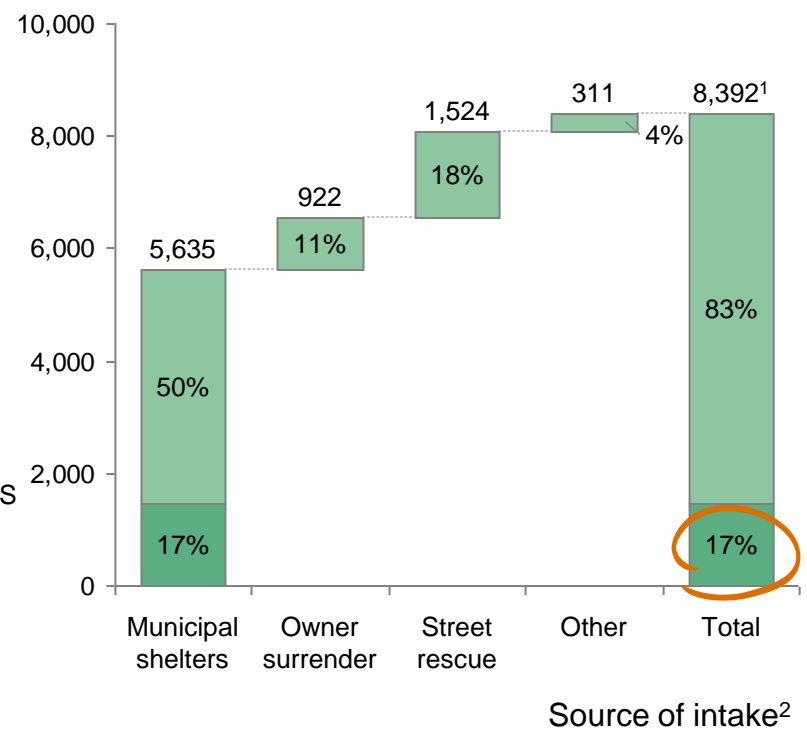
i Large rescues pull 8% dogs from DAS

Estimated 2016 dog intake of large rescue orgs.¹



ii Small rescues pull 17% dogs from DAS

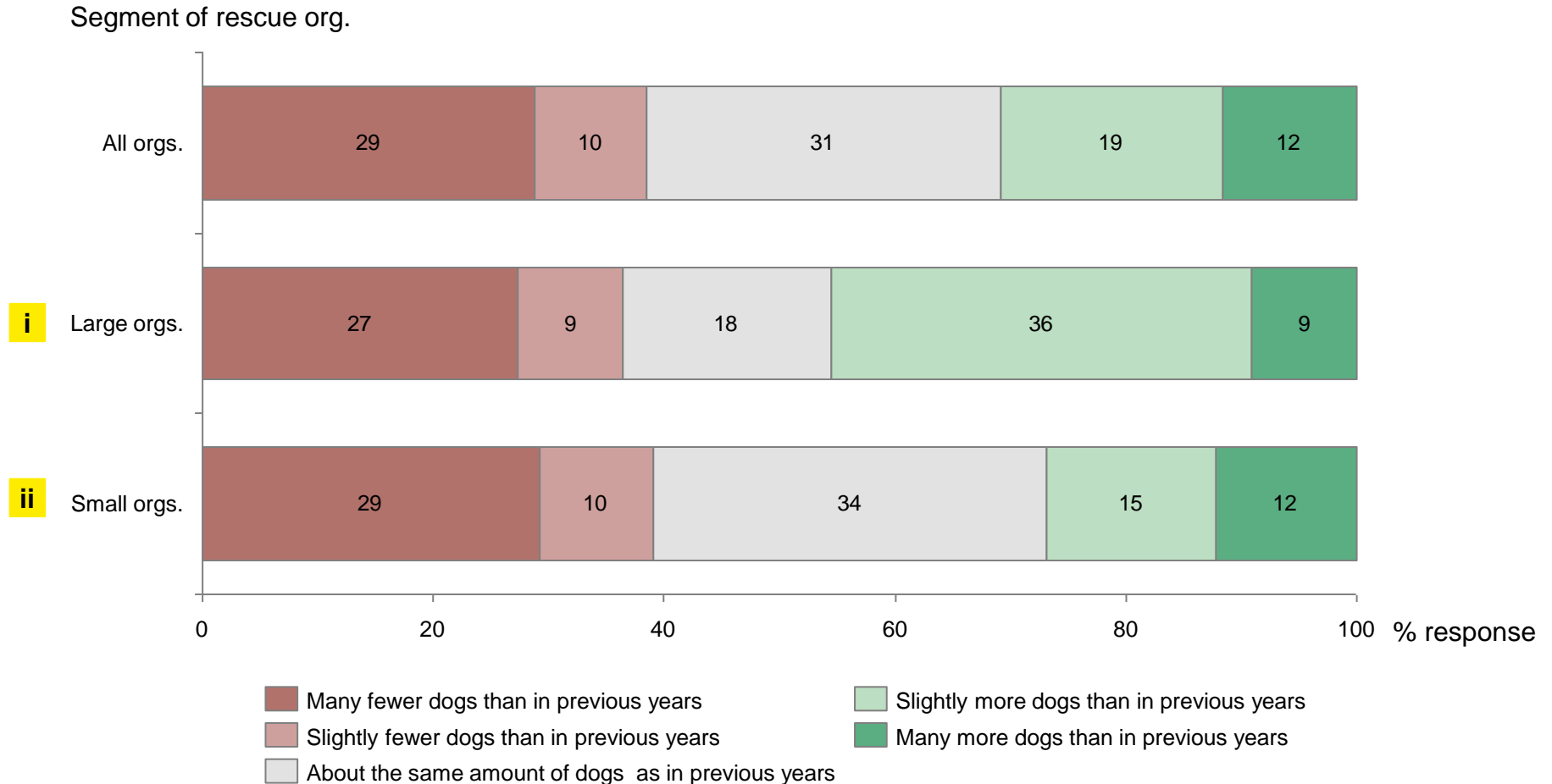
Estimated 2016 dog intake of small rescue orgs.¹



1. According to rescue survey, 58 orgs. have had a total intake of 21,483 YTD. Multiplied this by 2 and rounded up to 46k to account for the orgs. that did not take this survey. Then, used assumption that 82% of dog intake is attributed to large rescues as was the response from the Rescue and Animal Organization Survey for both 2015 and 2016 YTD intake numbers; Question: What percentage of your 2016 intake came from [source]... (n=48); Note: Large rescue organizations defined as having 2015 intake > 400; Note: Assumes that the distribution of sources from the survey is similar to all rescue organizations in the Dallas area; Source: Rescue and Animal Organization survey (n=72); BCG analysis

~40% orgs. have decreased intake from DAS; 30% have increased

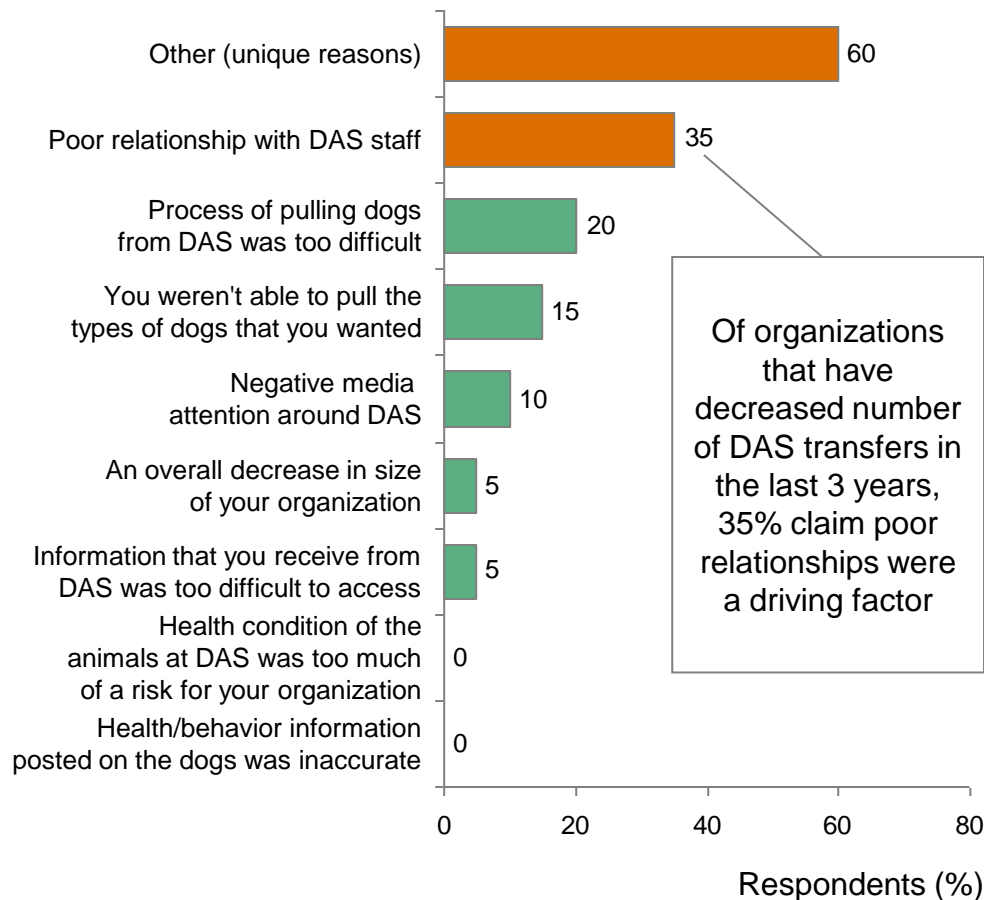
How has the total number of dogs you have pulled from Dallas Animal Services changed in the past 3 years?



Question: How has the total number of dogs you have pulled from Dallas Animal Services changed in the past 3 years? (n=52); Note: Large organizations defined as having >400 dog intake in 2015; Source: Rescue and Animal Organization survey (n=72); BCG analysis

Unique reasons and personal relationships most frequent causes for decrease in DAS transfers

Factors causing decrease in DAS transfers



Unique reasons

"They don't respond to emails or phone messages"

"Other groups pulling [the specific breed] first"

"I can't get certificates of sterilization from DAS"

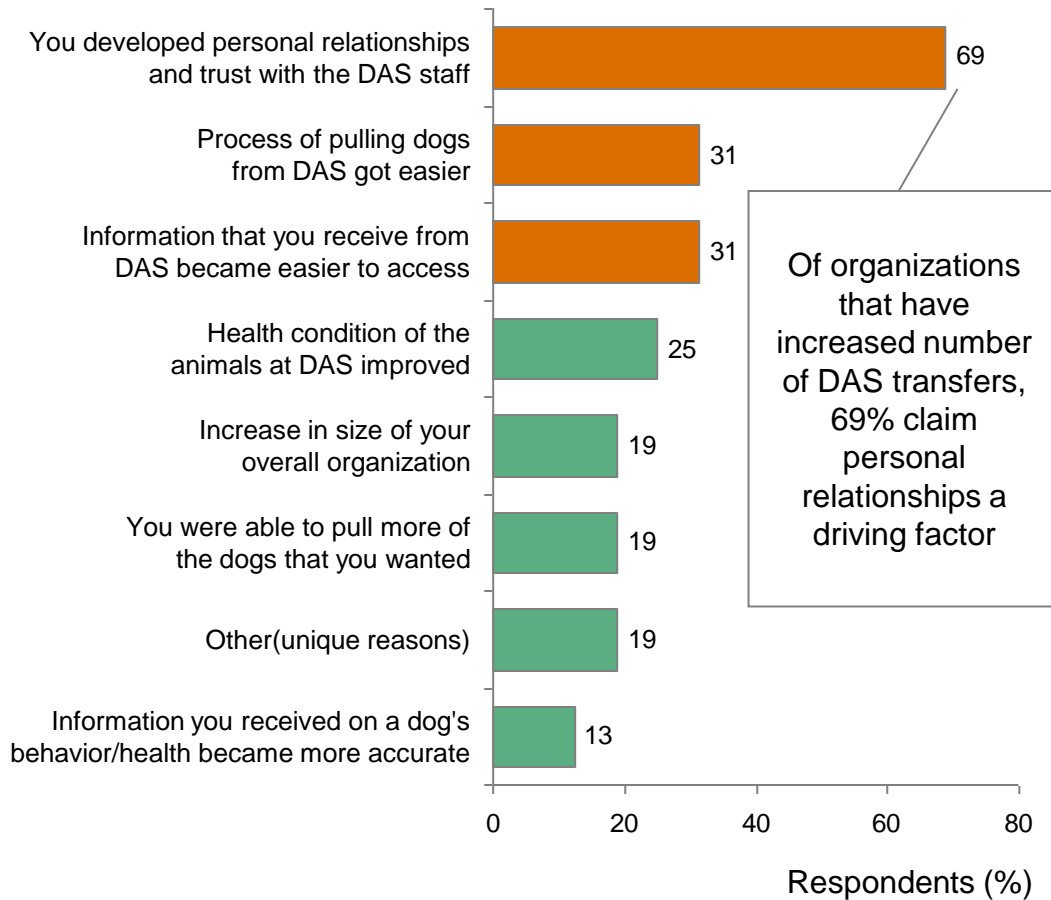
"I got behind on sending in proof of spay/neuter and just don't have the time to do all that paperwork"

"We focus efforts in Grayson County"

"Greater need in surrounding areas and fewer rescues working with those facilities; DAS seems to have some very large groups who have picked up the slack"

Personal relationships, easier processes, and access to info most common causes for increase in DAS transfers

Reasons for increasing DAS transfers



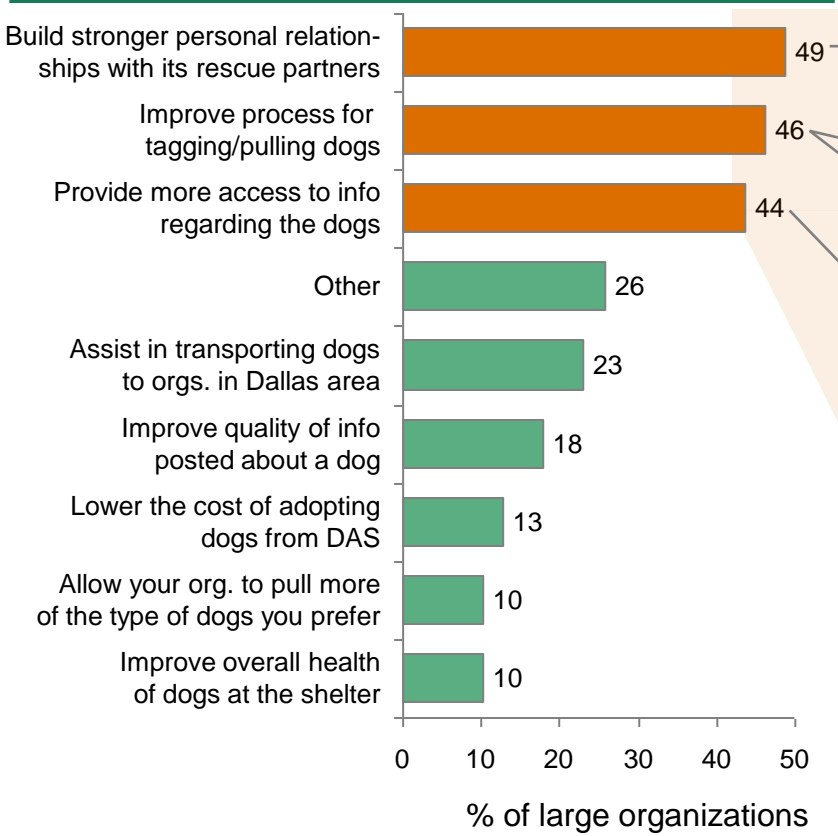
Other unique reasons

- "We were granted extra time by Danielle to get a foster in place which helped tremendously"
- "The ability to transport out of state"
- "Fantastic volunteer shelter named [xx] has helped by notifying us of Labs in the shelter"

Question: What factors have most contributed to the increase in the number of dogs you pulled from DAS? (n=16); Source: Rescue and Animal Organization survey (n=72); BCG analysis

To increase transfers from *small* rescues, DAS can build relationships, improve tagging and info sharing

i Survey showed three pain points for lrg. orgs.



DAS can respond to pain points with four actions ...

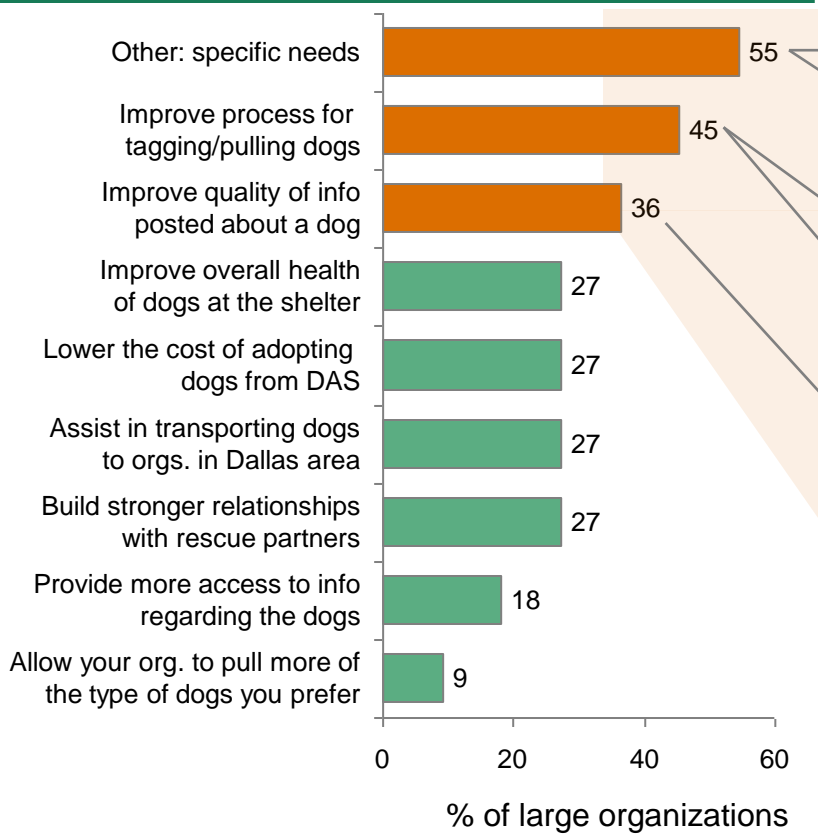
- 1 Create monthly meetings for rescue partners to hear their needs and develop a rapport
- 2 Automate tagging process so it is self-service
- 3 Create clear processes around pulling dogs and make them transparent
- 4 Enrich Pet Harbor dog profiles that partners can access

Note: Small rescues defined as having <400 dog intake in 2015; Source: Rescue survey; interviews with rescue organizations; BCG analysis

To increase transfers from *large* rescues, DAS can address specific needs and improve tagging and info

ii Survey showed three pain points for lrg. orgs.

DAS can respond to pain points with five actions ...

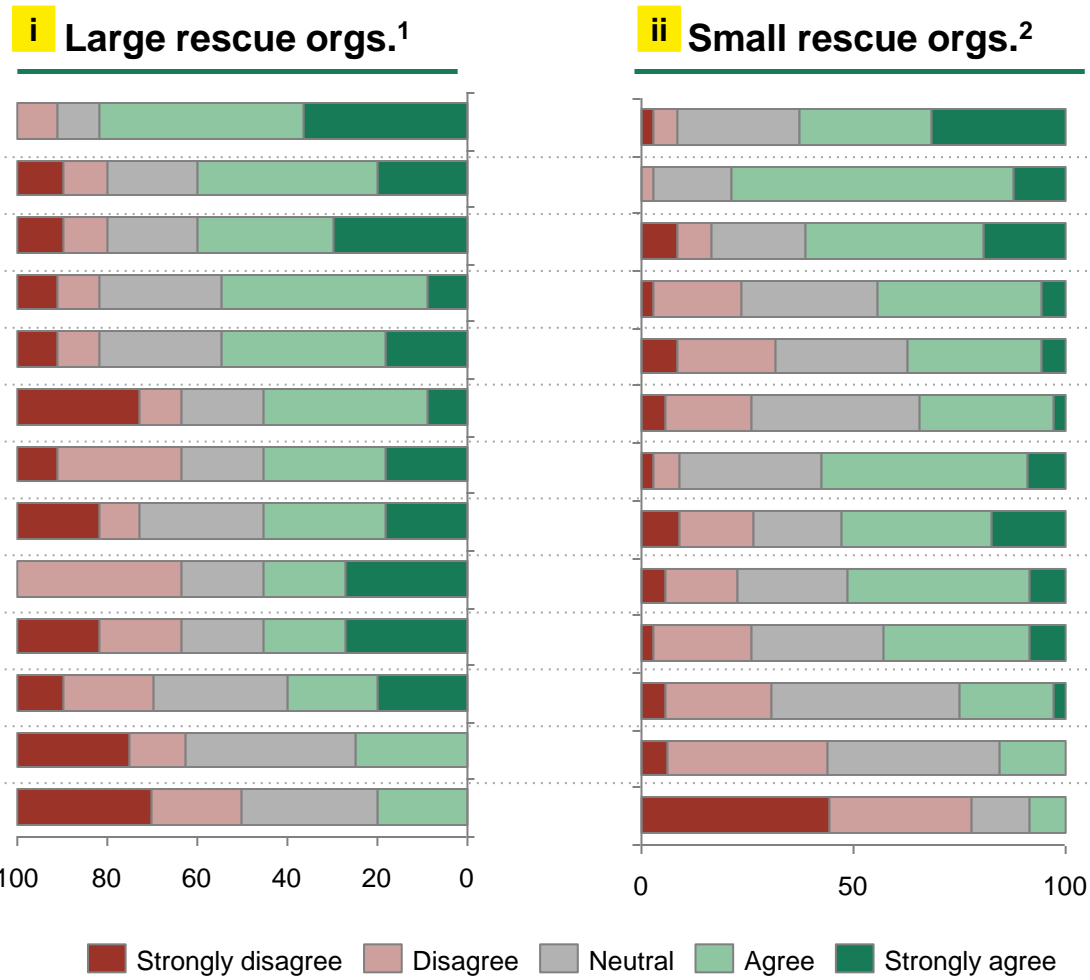


- 1 Provide higher touch relationships to better understand their needs
- 2 Tailor transfer coordinator relationship to the diverse specific needs of each large partner
- 3 Create MOUs with expedited processes for larger partners to pull dogs
- 4 Automate tagging process so it is self-service
- 5 Enrich Pet Harbor dog profiles that partners can access

Note: Large rescues defined as having >400 dog intake in 2015; Source: Rescue survey; interviews with rescue organizations; BCG analysis

Customer satisfaction scores for large vs. small rescues

Q: Please rate the following statements about Dallas Animal Services



1. N=11; 2. N=41; Question: Please rate the following statements about Dallas Animal Services (n=52); Note: Large organizations defined as having >400 dog intake in 2015; Note: Excludes "no opinion"; Source: Rescue and Animal Organization survey (n=72); BCG analysis

Considerations for transfer partner relationship management

1 Key account management is always custom-tailored

- Standardized procedure, but
- Company-specific solutions

2 For Key account management to be introduced there must be sufficient potential

- Key account management incurs cost
- Key accounts must produce higher sales and earnings to be profitable
- Prior to introducing high touch account management, it should be checked if there is a possibility that negative economic effects prevail when relationships are focused on one

3 Smaller accounts can also be improved through the model

- Considering the needs of smaller customers as a whole will improve experience for all
- Some changes implemented in response to key accounts can also benefit smaller accounts

Overview: DAS should establish a pet transport program to facilitate out-of-state adoptions

Summary of research and findings

- **Context:** Transporting dogs via fosters and ground pet transport companies is a relatively low cost way to deliver southern dogs to northern adopters.
- **Key takeaway:** After establishing or linking into a robust transfer/transport network, DAS could feasibly transport 900-2,000 dogs a year out-of-state.
- **Overall recommendation:** Invest in a full time supervisor employee to develop and grow the transfer/transport network structure

Estimated Impact

Methodology

- Analyze varying scale deployments of shelter/foster networks to transport dogs to northern cities
 - Leverage utilization/ capacity rates for fosters to hold and then transport successive dogs throughout the year

Key Assumptions

- 1 dog can be held at one foster home
- Foster network of 100 homes can be cultivated
- Transport company can make 50 trips a year
- No "demand" constraint from northern adopters

**Incremental ~900-2,000
dogs adopted / year**

Resource Requirements

Methodology

- Analyze projected cost of implementing transport program at DAS, size based on estimated number of dogs adopted
 - Break program costs into yearly (fixed) and per dog costs incurred

Key Assumptions

- 1 supervisor @ \$51k/yr
- Pet food provided = \$21/two week hold period
- Incremental cost for S/N and vetting = \$96
- DAS does not pay for the actual cost of transport – paid for by individual adopter

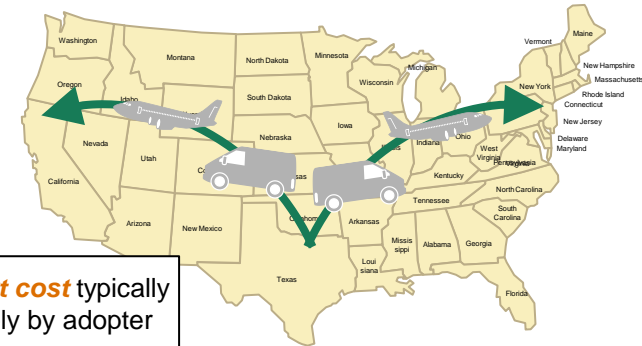
**Incremental cost of
~\$156k - \$285k / year**

Landscape of Pet Transport Options

Industry overview

Pet Transport options available to safely move animals long distances

- **Types:** both plane and car/van/truck
- **Customers:** both individuals and other shelters
 - Pet Transport companies themselves act as "intermediary" between parties
- **Prices:** vary by type of service – air is fastest and most expensive, ground is cheaper, but can take several days
- **Key players:** Several large, fee based organizations operate national networks, many smaller scale no-cost volunteer organizations operate with specialized networks (e.g, NorCAL, Pit bulls)



Transport options

Air

- Companies using dedicated planes, or leased space on commercial/passenger planes to transport animals
- Individually coordinated primarily between fosters and individuals, low capacity of transport

Approx. cost

~\$700-
\$1,400¹

Key players



- Happy Tails Travel Inc. and Pilot N Paws

Bottom line

High per animal price² and low available capacity

Ground

- Companies using commercial vehicles to transport (e.g., high capacity trucks). Multiple day journeys broken up by pre determined wellness stops.

More detail on following slides

- **Primarily transport for individual adoptions, at scale**
 - Animals originating from transfer partners/ foster destined for individual adopters out of state
 - Individual adopters typically cover cost of transport
- **Occasionally shelter – shelter group transfers**
 - Transport from one shelter/foster⁴ to a different out of state shelter
 - Less frequent because of 1) Cost – question of which shelter should cover, and 2) Logistics – necessity of additional ground transport from "drop off" point to destination shelter

~\$100-
\$200³



- Pets LLC, Paws Without Boarders Inc., and Rescue Road Trips Inc.

Relatively low per animal price³, large trip capacity, and defined route network

1. Typically covers cost of transport door to door; 2. Given high cost of air transport, many volunteer organizations operate in this space – linking slack pilot capacity with animals requiring transport; 3. Includes only cost of transport – does not include cost to foster/board out of shelter, cost to S/N, vaccinate, or food. 4. Ground transports across state lines typically require week-two week "out of shelter" holding period before transport; Source: Company websites, Expert Interviews, BCG analysis

Process and responsibilities for ground pet transport (I/II)

Assuming that DAS leverages transfer partner foster network

		Process and Cost Responsibilities include...		
Overview		DAS	Shelter/Foster	Transport
1	Transfer	<p>Process: Transfer coord. identifies shelter w/ space</p> <p>Cost: Basic vet care</p>	<p>Process: Intake animal in temporary capacity</p> <p>Cost: Food for stay</p>	
2	Foster	<p>Cost: Ongoing food for foster duration</p>	<p>Process: Foster takes animal from shelter, houses for 2 wk period</p>	
3	Identify adopter	<p>Process: Transport Supv leads adopter search (WOM, social media)</p> <p>Cost: Ongoing food for foster duration</p>	<p>Process: Assist Transport Supv in connecting adopters with fosters (word of mouth, social media)</p>	
4	Reserve transport	<p>Process: Transport supv confirms adoption and transport method</p> <p>Cost: Ongoing food for foster duration</p>	<p>Process: Shelter, foster, assist Transport Supv in coordinating w/ Transport company for logistics</p>	<p>Process: Coordinate with DAS/shelter/foster and adopter on pick up and drop off location</p>
5	Pick up & transport	<p>Note Transport cost typically covered entirely by adopter (at mkt price)</p>	<p>Process: Shelter and foster deliver animal to transport company with necessary paperwork</p>	<p>Process: Transport company intakes dog, secures in truck</p> <p>Cost: Food, care, transit</p>
6	Deliver			<p>Process: Transport company delivers specific dog to adopter</p> <p>Cost: Food, care, transit</p>

Source: Expert interviews, company websites, BCG analysis

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Process and responsibilities for ground pet transport (II/II)

Assuming that DAS develops and *leverages own foster network*

Note: Implies that DAS must work to build its own network of fosters – actively manage volunteer resource network

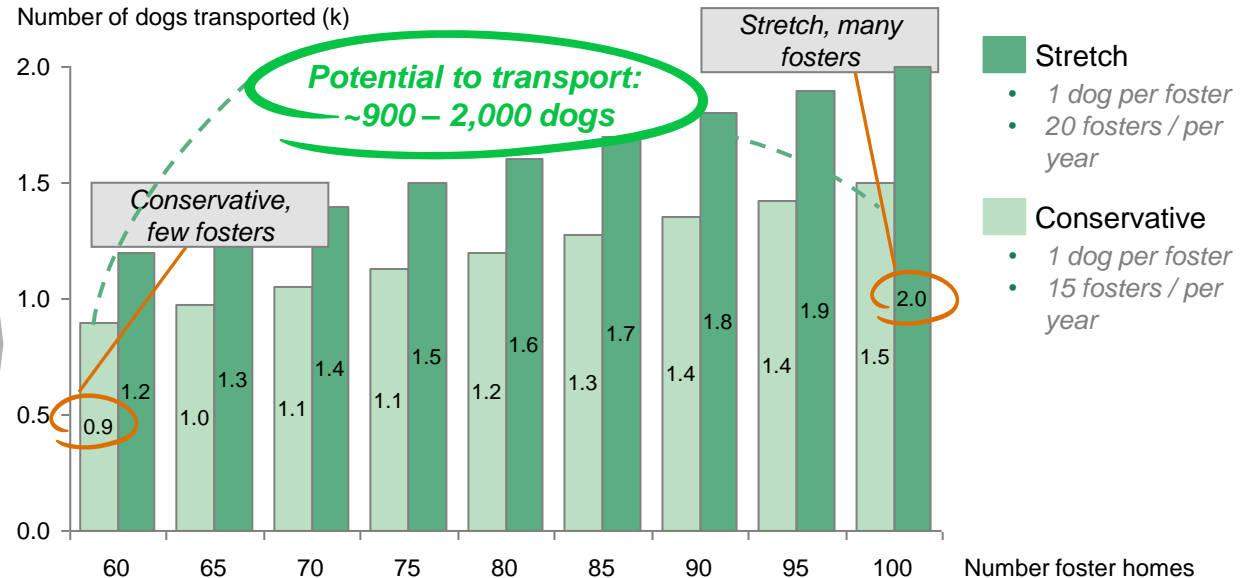
Overview		Process and Cost Responsibilities include...			
		DAS	Foster	Transport	
1	Foster	DAS coordinates with its shelter network, finds minimum two week foster for animal	Cost: Ongoing food for foster duration	Process: Foster takes animal from DAS, houses for 2 wk period	
2	Identify adopter	Search for and connect with individual adopter (likely in northern city)	Process: Transport Supv leads adopter search (WOM, social media) Cost: Ongoing food for foster duration	Process: Assist Transport Supv in connecting adopters with fosters (word of mouth, social media)	
3	Reserve transport	DAS/foster/adopter coordinate to organize pick up and drop off of animal	Process: Transport supv confirms adoption and transport method Cost: Ongoing food for foster duration	Process: Foster assists Transport Supv in coordinating w/ Transport company for logistics	Process: Coordinate with DAS/ foster and adopter on pick up and drop off location
4	Pick up & transport	Transport company picks up animal at set pick up location, trucks to adopter over several day journey	Note Transport cost typically covered entirely by adopter (at mkt price)	Process: Foster delivers animal to transport company with necessary paperwork	Process: Transport company intakes dog, secures in truck Cost: Food, care, transit
5	Deliver	Transport company delivers adopted animal at set drop location around adopter		Process: Transport company delivers specific dog to adopter Cost: Food, care, transit	

Estimated impact: Potential to transport ~900-2,000 dogs each year by implementing a robust pet transport program

Key assumptions

Foster dog capacity per home	1 dog
Number of potential "Transport" trips per year	50
Minimum dog stay in foster before transport	2 wks
Num fosters per year	15-20
Achievable foster network size	60-100 homes

Potential number of DAS dogs for transport depends on size and activity of transfer and foster network



Critical dependency for impact estimate

Transport projections rely on robust foster network

- Setting up own DAS network or "Plugging in" to different shelter's existing foster network is key enabling criteria
- Either option requires at least partially dedicated DAS resource to coordinate
 - Estimated 1 full incremental FTE required to increase Transport coordination efforts¹

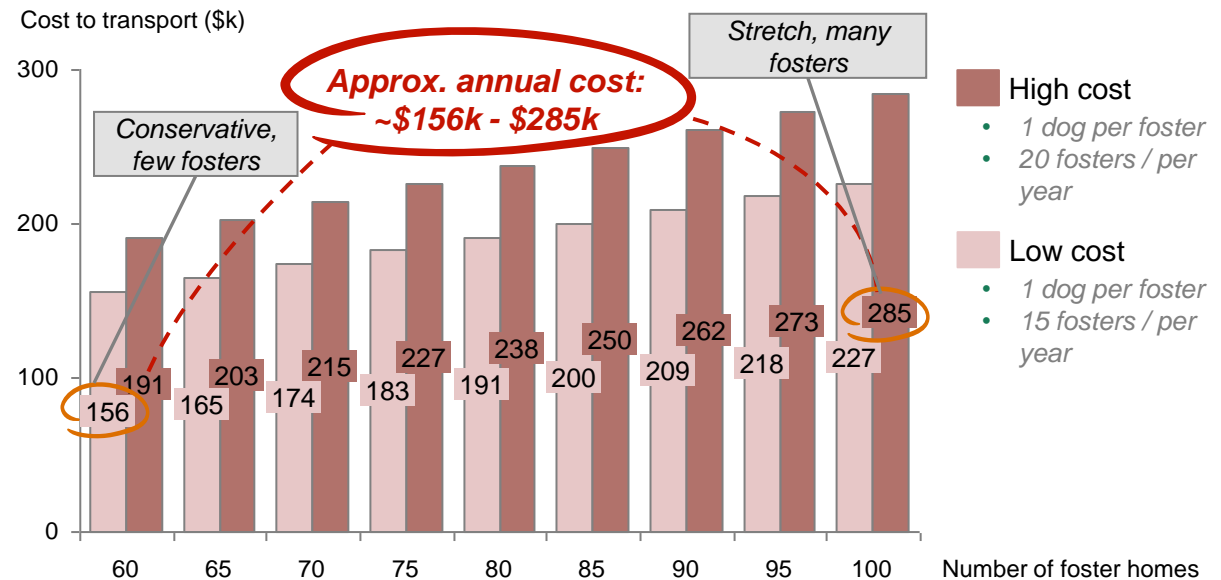
1. Estimated based on Expert Interviews and nationwide animal service staff benchmarks; Source: Transport websites, Expert interviews; BCG analysis

Resource requirements: Implementing a robust pet transport program would cost ~\$156k-\$285k each year

Key assumptions

Foster dog capacity per home	1 dogs
Number of potential "Transport" trucks per year	50
Minimum dog stay in foster before transport	2 wks
Num fosters per year	15-20
Achievable foster network size	60-100 homes
Staffing requirement	1 supv. employee
Cost to transport (Excluding transport fee)	
• Incremental cost of dog adoption	\$96 ¹
• Pet food expense (per dog)	\$21 ²
• 1 Supv employee (yearly)	\$51k ³

Transport costs (excluding transport company fee) driven by supervisor salary and vet / dog food costs



Critical dependency for resource estimates

Individual adopters typically cover transport provider's full price

- Depending on transportation company chosen, rates vary from \$100-\$200⁴
- Other fees (cost of preparatory S/N and vaccines and food during foster) incurred by DAS/other shelter/non-profit org
- Note: If considering shelter – shelter transport, full burden of all costs (transport, vet, boarding, etc.) negotiated separately

1. Estimated incremental cost of adoption, inclusive of S/N and vaccine cost; 2. Assumed to cover two weeks of pet food expenses; 3. Determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits; 4. Rates for PETS LLC, Rescue Road Trips, Alpha Dog Transport; Source: Company websites, Petfinder.com, Texas Tribune Government Salaries Explorer; BCG analysis

Overview: DAS should deflect owner surrenders through owner assistance programs

Summary of research and findings

- **Context:** Owner surrender deflection provides resources to pet owners to keep their pets at home instead of surrendering to the animal shelter.
- **Key takeaway:** Surrender deflection program at DAS has the potential to deflect ~2,600 dogs from ever entering DAS intake.
- **Overall recommendation:** Invest in building out a full DAS Pet Retention program.

Estimated Impact

Methodology

- Survey pet owners surrendering their pets to DAS to identify reasons for surrender and potential reasons for retention
- Project estimated animals retained by extrapolating reasons for retention on current base of owner surrendered animals

Key Assumptions

- 2015 DAS dog intake = 20,807
- 2015 dog intake through owner surrender = 32%
- 2015 owner surrender dogs = 6,624

Incremental ~2,600 dogs retained at home

Resource Requirements

Methodology

- Break out fixed and variable costs associated with each pillar of DAS surrender deflection program
- Develop high and low cost projections based on varying resource levels

Key Assumptions

- Coordinator employee = ~\$51k/year
- Dog run, routine vet care, S/N surgeries, food assistance, and behavior courses costs from community

Incremental cost of ~\$26k / year

Developed sample Owner Deflection Program in "lean" and "robust" options to support impact and resource sizing

Note: "Robust" option provides all services to pet owners for free; assumes discounts are less effective retention strategy

Implementation Options

"Lean"











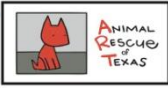

Connect pet owner with existing support services – *low cost to implement*

"Robust"

Provide free service/care to pet owners – *higher cost to implement*

Program Pillars		Description	"Lean"	"Robust"
Program Coordinator		<ul style="list-style-type: none"> DAS supervisor responsible for creating and overseeing pet retention program 	Leverage ½ employee of DAS supervisor	
Resources Available to Pet Owners	i Construction of Dog Run/Fence	<ul style="list-style-type: none"> Support construction of fence or dog run 	Pay for portion of fence or dog run construction	Pay for full fence or dog run construction
	ii Assistance with Routine Veterinary Care	<ul style="list-style-type: none"> Support pet with routine veterinary procedure 	Connect w/ free or discounted resources	Pay for routine vet care
	iii Provision of Spay/Neuter Surgery	<ul style="list-style-type: none"> Assist with S/N surgery for pet 	Connect w/ free or discounted resources	Pay for S/N surgery
	iv Assistance with Pet Food Expenses	<ul style="list-style-type: none"> Assist with 1 month of pet food expenses 	Connect w/ free or discounted resources	Pay for 1 month of pet food
	v Assistance with Behavior Courses	<ul style="list-style-type: none"> Assist with 1 month of obedience classes 	Connect w/ free or discounted resources	Pay for 1 month of obedience course
	vi Assistance with Finding Temporary Home	<ul style="list-style-type: none"> Connect with available networks or resources for temporary foster 	Connect w/ free or discounted resources	
	vii Removal of Tickets/Citations from ASOs	<ul style="list-style-type: none"> Void or remove existing /citations from ASOs 	Coordinate to remove tickets/citations	

Backup: Sample landscape of free/ discounted resources available in DFW for "lean" Owner Deflection Program

Pet Retention Program "Intervention"	"Lean" option availability	DFW resources
i Construction of Dog Run/Fence	<ul style="list-style-type: none"> Dallas Animal Services pays for portion of fence or dog run construction 	
ii Assistance with Routine Veterinary Care	<ul style="list-style-type: none"> Discounted routine veterinary care for pets (vaccinations, wellness check up, etc.) 	 
iii Provision of Spay/Neuter Surgery	<ul style="list-style-type: none"> Discounted Spay/Neuter surgery for pets 	 
iv Assistance with Pet Food Expenses	<ul style="list-style-type: none"> Discounted/Free pet food products, based on donation availability 	 
v Assistance with Behavior Courses	<ul style="list-style-type: none"> Free online training resources for pet owners 	 
vi Assistance with Finding Temporary Home	<ul style="list-style-type: none"> Emergency temporary boarding in extreme circumstances (e.g., fire, domestic abuse) Temporary foster while animal awaits new permanent home 	 
vii Removal of Tickets/ Citations from ASOs	<ul style="list-style-type: none"> Dallas Animal Services "forgives" tickets and citations from record 	

Estimated impact: Owner Surrender Deflection Program has potential to deflect ~2,600 dogs per year

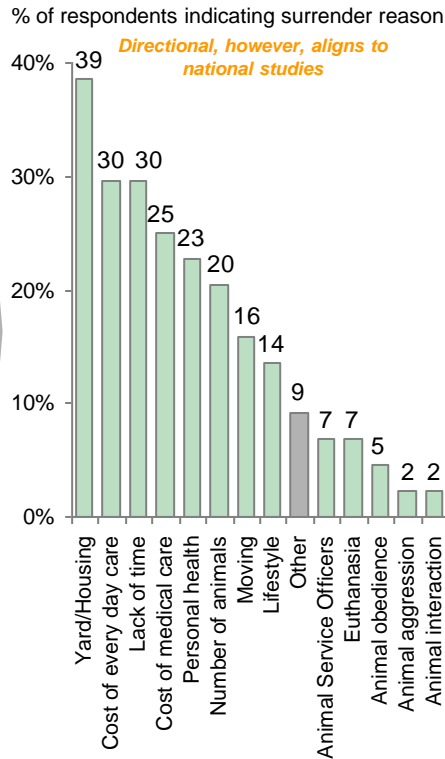
Key assumptions

2015 DAS Dog Intake	20,807
2015 % Dog Intake through Owner	32%
2015 Owner Dog Intake	6,624

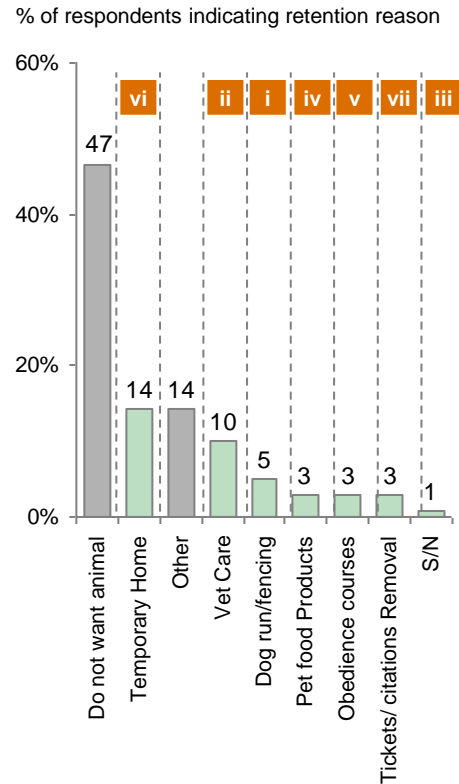
DAS Owner Deflection:

- i** Dog Run/ Fence
- ii** Routine Vet Care
- iii** S/N Surgery
- iv** Pet Food Expense
- v** Behavior Courses
- vi** Temporary Foster
- vii** Remove Citations

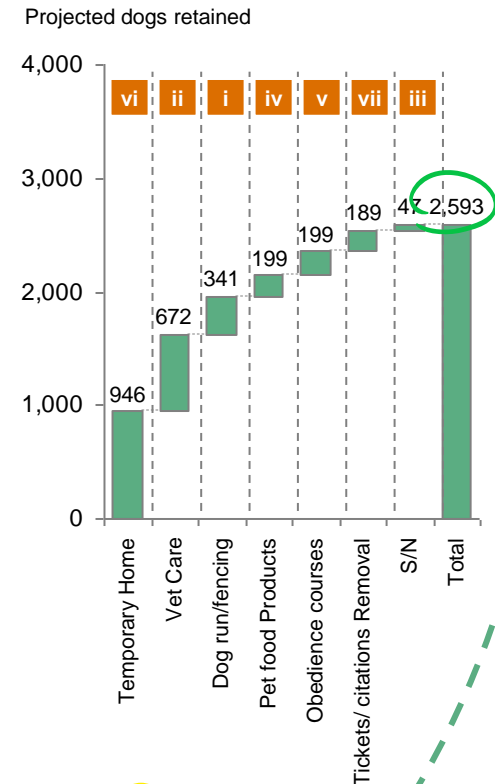
I Surveyed reason for surrender at DAS¹



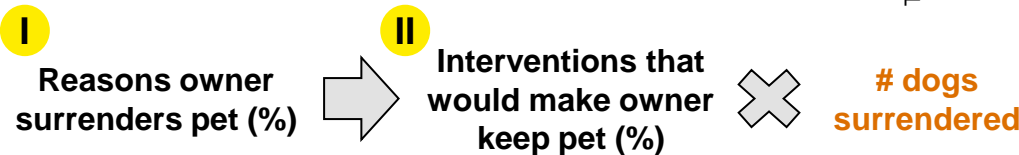
II Surveyed reason for retention at DAS²



III Projected Retention Impact



Impact logic:



Potential ~2,600 dogs "deflected" per year

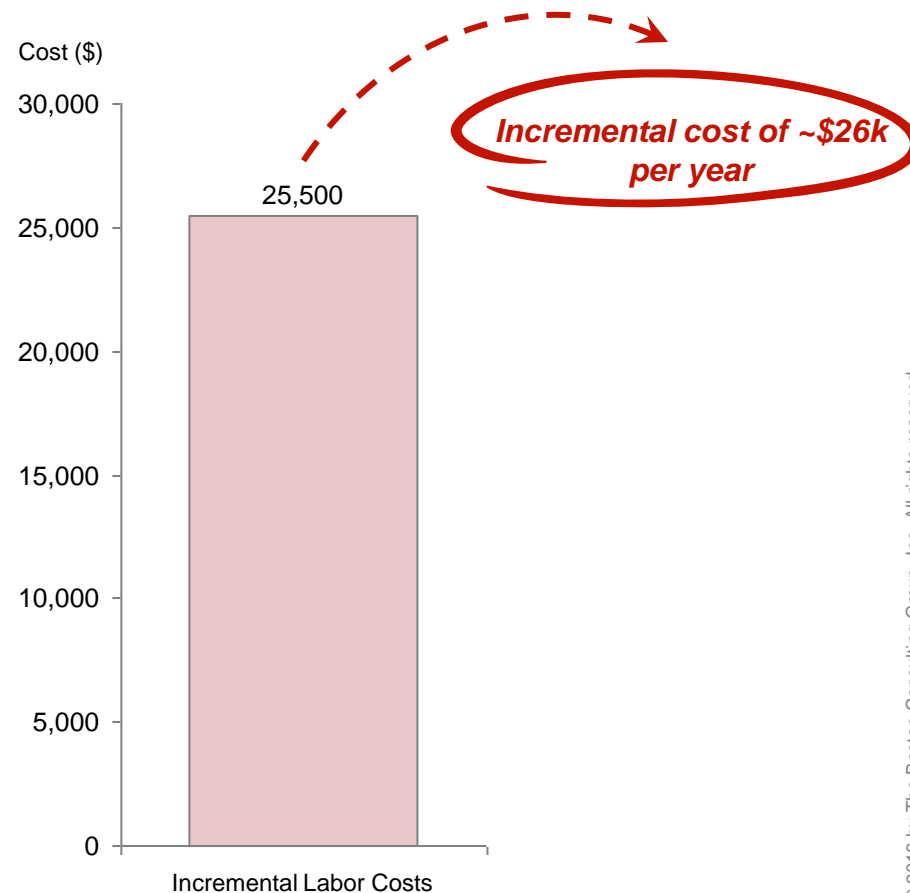
1. Q: Why are you bringing this animal to DAS today?; 2. Q: If any of the following were available to you, would you choose to keep this animal?; Source: DAS Chameleon database, July 2016 DAS Owner Intake Survey (n = 44), BCG analysis

Resource requirements: Deflection program costs ~\$26k a year

Key assumptions

Program coordinator		½ FTE @ \$51k/yr ¹
DAS Owner Deflection:		
i	Dog Run/ Fence	-
ii	Routine Vet Care	-
iii	S/N Surgery	-
iv	Pet Food Expense	-
v	Behavior Courses	-
vi	Temporary Foster	-
vii	Remove Citations	-

Estimated yearly costs of Owner Deflection Program



1. Determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits; Source: DAS Chameleon database, PetFinder.Com "Annual Dog Care Costs", Texas Tribune Government Salaries Explorer, BCG analysis

Overview: DAS should provide enhanced behavior training to increase the adoptability of dogs

Summary of research and findings

- **Context:** ~5,800 dogs "sufficiently healthy" (TR or TM¹) for adoption were euthanized for behavioral reasons in 2015
- **Key takeaway:** Providing behavior training to this volume of adoptable but euthanized dogs would result in ~700-1,300 incremental adoptions each year
- **Overall recommendation:** DAS should provide behavior training to a subset of dogs that are "sufficiently healthy" for adoption in order to increase their chances of adoption

Estimated Impact

Methodology

- Determine "sufficiently healthy" dogs for adoption that were euthanized for behavior reasons
- Determine subset of this population that could be adopted after having taken behavior training classes

Key Assumptions

- 49% of dogs are euthanized for behavior reasons
- At most 46% of dogs would be adopted after

Note: Dog does not have to be in shelter for training. Coupons to be given to adopted dogs

**Incremental ~700 – 1,300
dog adoptions / year**

Resource Requirements

Methodology

- Determine the incremental cost of adopting a dog vs. euthanasia
- Project the total cost of behavior classes for adopted dogs

Key Assumptions

- Cost of adopted dog = \$96
- Behavior classes = \$21-\$46/month

**Incremental cost of
~\$392k - \$770k / year**

1. Asilomar animal health classifications: TR = Treatable-Rehabilitatable, TM = Treatable-Manageable; Note: Sources and assumptions listed in detail on each relevant backup slide

Est. Impact: Training "sufficiently healthy" dogs could lead to incremental ~700 - 1,300 adoptions

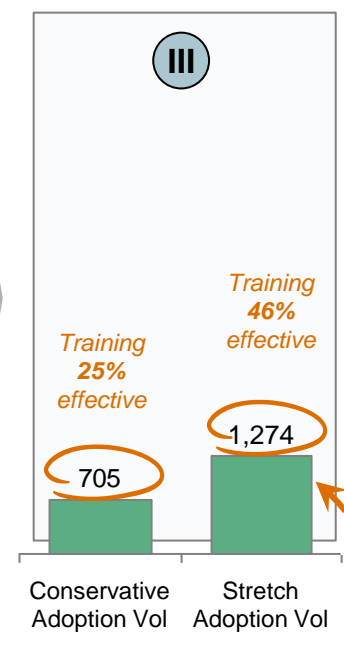
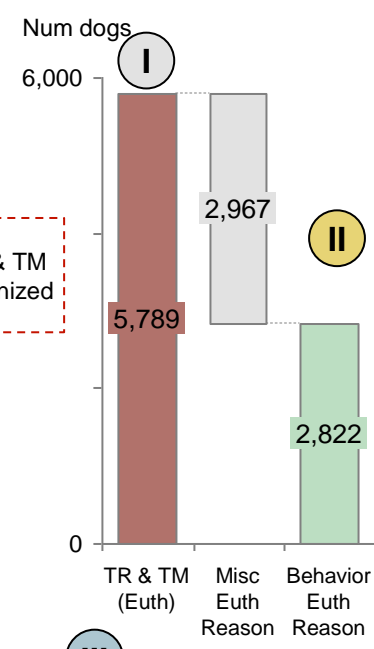
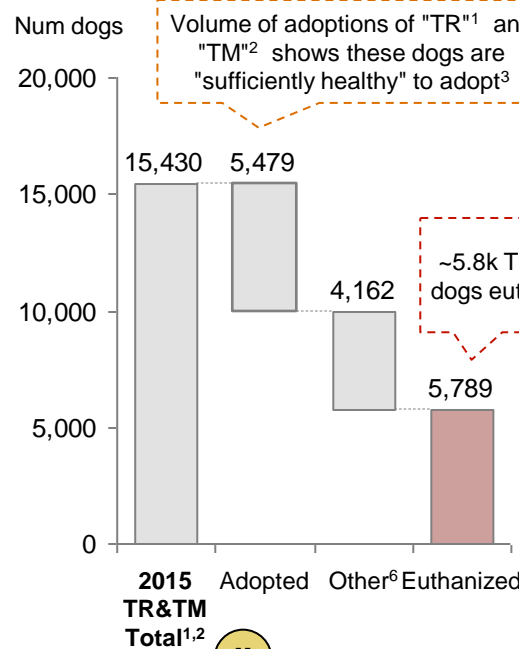
Key assumptions

- % of dogs euthanized for behavior reasons⁴ 49%
- % of dogs adopted after behavior classes⁵ 25%-46%

Though "TR"¹ & "TM"² dogs "sufficiently healthy"³ for adoption, ~5.8k are euthanized...

...of this ~5.8k, ~50% are euthanized for behavior

Can Increase adoptions by training "TR"¹ & "TM"² dogs



Impact logic:

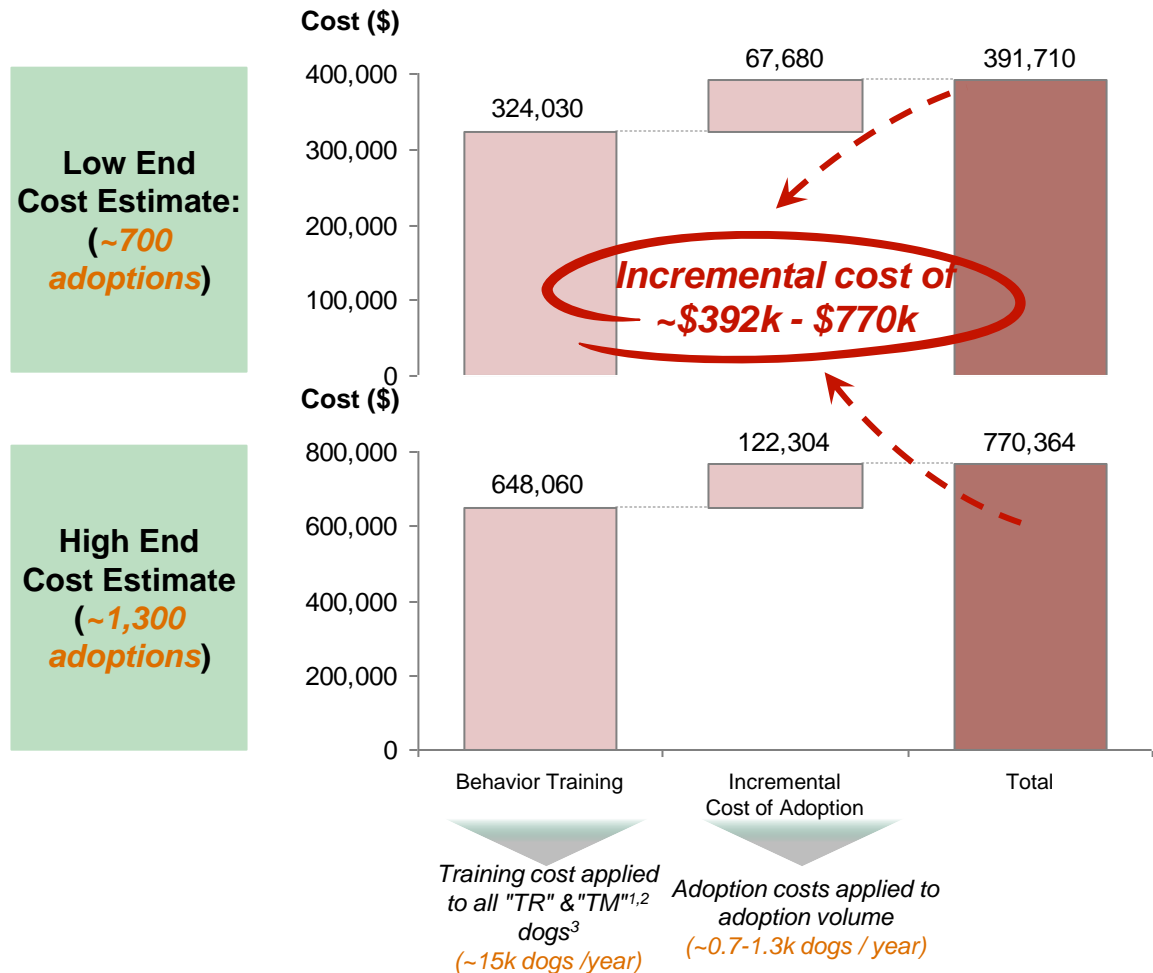
1. Treatable Rehabilitatable; 2. Treatable Manageable; 3. "Sufficiently healthy" refers to TR & TM dogs that are technically healthy enough to be adopted, according to DAS staff and DAS Chameleon data; 4. Statistic from DAS Chameleon data; 5. Statistic based on academic report "The Effects of Training and Environmental Alterations on Adoption Success of Shelter Dogs"; 6. "Other" includes RTO and Transferred dogs; Source: DAS Chameleon Database, Expert Interviews, "The Effects of Training and Environmental Alterations on Adoption Success of Shelter Dogs" – Luescher and Medlock, BCG analysis

Resource requirements: Providing training courses to all "sufficiently healthy" dogs costs ~\$392k-\$770k yearly

Key assumptions

Incremental Cost Increase of Adopted Dog	\$96/dog
Cost of Behavior Classes	
Low end adoption: behavior classes for one month	\$21/dog
High end adoption: behavior classes for two months	\$42/dog

Resources required dependent upon adoption volume



1. Treatable Rehabilitatable; 2. Treatable Manageable; 3. Cannot assume to know which "TM" & "TR" dogs will require training, must offer training to full population of "TR" and "TM"
Source: DAS Chameleon Database, "PetFinder.com" Annual Dog Care Costs, BCG analysis

Overview: DAS should hire 1 vet and 2 vet techs to perform S/N and vaccinations for incremental dog adoptions

Summary of research and findings

- **Context:** There is a legal requirement for DAS to spay or neuter and vaccinate all dogs that are adopted
- **Key takeaway:** Due to recommendations increasing number of adoptions, additional staff needs to be hired to perform surgeries and vaccinate
- **Overall recommendation:** DAS should hire 1 veterinarian and 2 vet techs due to the increase in spay/neuters that are required for increasing adoptions

Recommendation

DAS should hire additional staff to perform spay/neuter surgeries and administer vaccines on the incremental adoptions

- 1 veterinarian
- 2 vet technicians

Rationale

- Assumes team can perform up to 8,000 surgeries annually
- Labor costs have been allocated across the recommendations

Agenda

Recommendation 4: Provide 46,000 free spay and neuter surgeries in southern Dallas each year for next three years

Overview: The Dallas community should provide 46,000 low-cost S/N surgeries for each of the next 3 years

Summary of research and findings

- **Context:** Intact male dogs account for 70-75% of bites. There are currently 5k low-cost sterilization surgeries yearly in southern Dallas – potential to control population by increasing availability
- **Key takeaway:** Community can sterilize dog population and increase public safety by increasing number of available low-cost surgeries to 46k a year at a total cost of ~\$7.5MM a year.=
- **Overall recommendation:** Invest in resources and coordination efforts for surge spay/neuter throughout southern Dallas

Estimated Impact

Methodology

- Analyze number of intact dogs and sterilization surgeries needed per zip code
 - Determine intact population based on DAS intake by zip code

Key Assumptions

- 6% of dogs are loose
- 50/50 sex ratio
- 1.16 litters a year, 7 puppies a litter, 75% birth survival rate for average of 6.09 puppies/year
- 10 year life expectancy
- 2.8% of owned dogs can breed

Incremental 46k surgeries / year

Resource Requirements

Methodology

- Break out distinct components of incremental costs associated with providing more spay/neuter surgeries
 - Incremental labor cost: labor cost for vets, vet techs, project manager
 - Incremental location cost: cost to purchase vans
 - Incremental supplies cost: vaccination costs

Key Assumptions

- \$50k marketing budget, \$100k project manager budget, \$60/surgery for vet, \$40k vet tech salary
- ~\$70 supplies per surgery

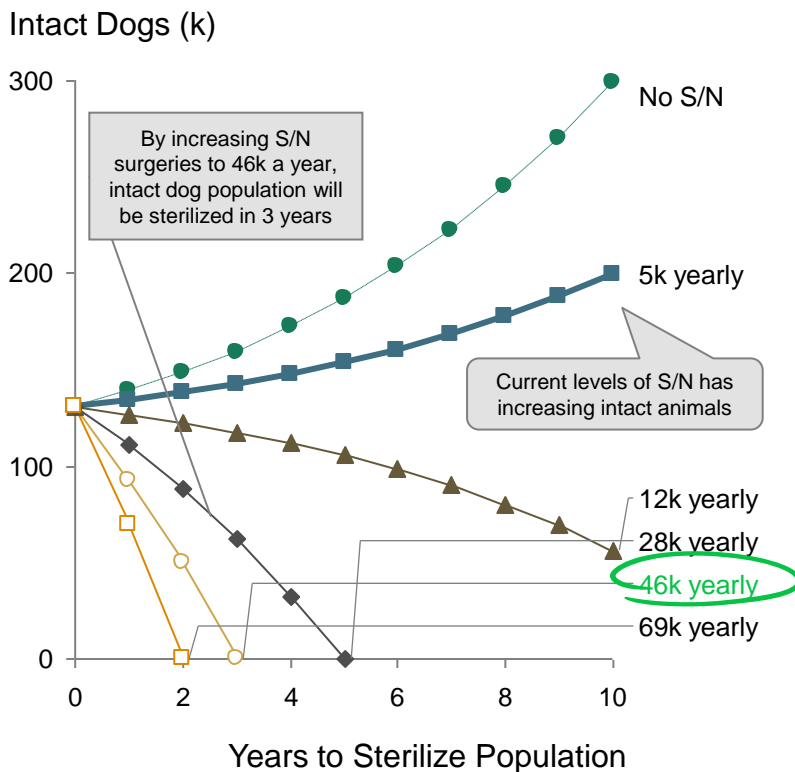
Incremental cost of ~\$7.5MM / year

Estimated Impact: Increase low-cost spay/neuter efforts to 46k surgeries annually

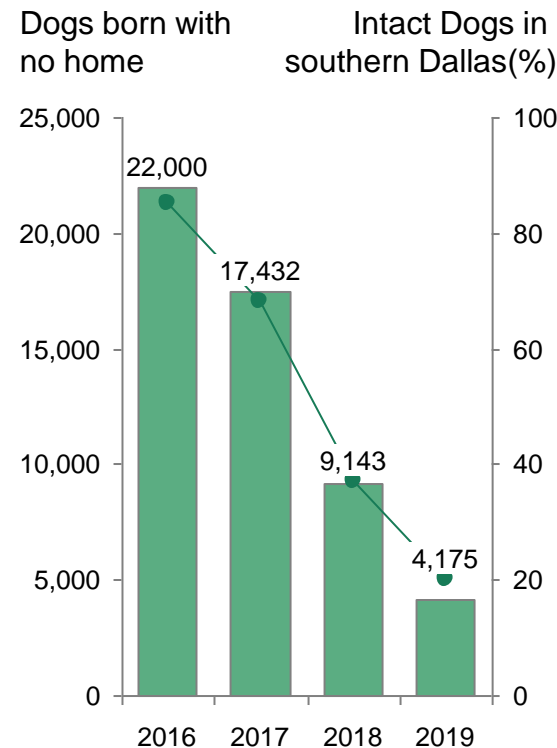
Key assumptions

- 6% of dogs roaming
- 50/50 sex ratio
- 1.16 litters a year, 7 puppies a litter, 75% birth survival rate for 6.09 puppies a year
- 10 year life expectancy
- 2.8% of owned dogs breeding
- 100% loose dogs breeding
- 14k DAS intake yearly
- 5k sterilized placements back into southern Dallas yearly

Surgeries needed to sterilize population



Estimated Impact¹



1. Assumes gradual ramp up to 46,000 surgeries. Intact population to stop at 20% due to people not wanting to sterilize their pets.; Source: Experian Current Year Estimates (Q2 2015) for population data, AVMA, Birth and Death Rate Estimates of Cats and Dogs 2004, ASPCA, Canine Perinatal Mortality Study 2012, DAS Chameleon database, Development of a Model for Estimating the Size and Dynamics of Pet Dog Population 1994; BCG analysis

Resource requirements: Community coordination and investment of ~\$7.5MM necessary to reach S/N targets

	<u>Additional Spay Days (DAS)</u>	<u>New Mobile Units to fill gap</u>
Targeted surgeries per year	5,880	37,500 ¹
Cost per surgery	\$160	\$168
Total cost for surgery	~\$950k	~\$6.3MM
Total indirect costs	~\$227k	
	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <ul style="list-style-type: none"> • Open Spay Days to 8 days / month² </div> <div style="text-align: center;"> <div style="border: 2px solid red; border-radius: 50%; padding: 5px; display: inline-block;">~\$7.5MM</div> </div> <div style="text-align: center;"> <ul style="list-style-type: none"> • 5 new mobile units • Units focused on dogs </div> </div>	

1. Additional 35,194 surgeries required to hit 46k spay/neuter target. Cost is for 5 mobile units that have capacity for 37,500; 2. Spay Days currently open once per month; Source: BCG analysis

Program costs vary slightly depending on how surgeries delivered

<u>Direct Costs:</u> Key Requirements	What's Included	Total Cost	DAS Cost/Surgery ¹ (5,880 surgeries)	Mobile Cost/ Surgery ² (7,500 surgeries)
Facilities	• Transport vehicle ³	• 12k/vehicle/year	• 2	• n/a
	• Gas for transport	• 2.5k/year	• 0.5	• n/a
	• Transport equipment	• 20k/year	• 3	• n/a
	• Mobile van ⁴	• 75k/van/year	• n/a	• 10
	• Gas/generator for mobile	• 50k/year	• n/a	• 7
Staff	• Veterinarian	• 60/surgery	• 60	• 60
	• Vet technician	• 40k/year	• 14 (2 FTE)	• 11 (2 FTE)
	• Transport driver	• 35k/year	• 3 (0.5 FTE)	• n/a
Consumables	• Supplies, meds, vaccines	• 50/surgery	• 50	• 50
	• Ancillary medical	• 18/surgery	• 18	• 18
	• Mobile van consumables	• 15k/van	• n/a	• 2
Overhead	• Manager time	• 10/surgery	• 10	• 10
Revenue	• No means based testing and assumes \$0 cost to owner	• 0	• 0	• 0
Total			\$160	\$168

<u>Indirect Costs:</u> Key Requirements	What's Included	Total Cost
Marketing	• Advertising, printing, flyers, Facebook, door-to-door canvassing	• 50k/year
Staff	• Admin to schedule appointments	• 3 FTE at 25k/year each
	• Project manager	• 100k/ year
Overhead	• Hotline for scheduling appointments	• 2k/year
Total		\$227,000

1. DAS Shelter to be open additional 7 days a month (for a total of 8 Spay Days) doing 70 surgeries daily; 2. Mobile unit assumes 30 surgeries daily, 5 days a month, 50 weeks a year; 3. \$35k / year transport vehicle depreciated over 3 years; 4. \$225k / year mobile van depreciated over 3 years; Source: SPCA; SNN; Expert Interviews; BCG analysis

Backup: Spay and neuter targets by zip code for southern Dallas

Big Fix for Big D Zip Code

Zip code	Households	Y1 Intact (%) ¹	Y1 Estimated Dogs	Y1 Intact Population	Y1 Target S/N Surgeries	Y2 Target Intact Population	Y2 Target Intact (%)
75211	21,214	80	18,732	14,954	4,191	11,557	59
75212	7,311	84	6,456	5,412	1,395	3,846	60
75216	17,440	86	15,400	13,250	3,602	9,934	64
75217	22,015	88	19,439	17,050	4,686	12,922	65
75224	10,295	82	9,090	7,472	2,111	5,821	61
75227	17,572	86	15,516	13,320	3,813	10,514	64
75228	24,652	78	21,768	16,934	5,002	13,795	59
75241	10,647	87	9,401	8,211	2,318	6,391	65
75116	6,842	85	6,041	5,135	1,569	4,327	64
75134	7,320	85	6,464	5,494	1,680	4,634	64
75180	7,903	85	6,978	5,932	1,811	4,994	64
75203	6,292	81	5,556	4,528	1,264	3,487	60
75207	787	85	695	591	174	479	64
75208	10,391	78	9,175	7,201	2,052	5,658	59
75210	3,006	85	2,654	2,256	629	1,735	63
75223	4,478	83	3,954	3,274	913	2,518	61
75226	2,217	85	1,958	1,664	500	1,378	64
75232	10,221	86	9,025	7,722	2,197	6,058	64
75233	5,041	81	4,451	3,622	1,024	2,824	61
75236	4,801	81	4,239	3,413	997	2,748	60
75237	8,076	77	7,131	5,480	1,625	4,480	59
75249	5,238	76	4,625	3,520	1,040	2,869	58
75253	6,375	90	5,629	5,048	1,408	3,882	67
Total	220,134	83	194,378	161,481	46,000	126,852	62

1. Intact population in southern Dallas estimated from S/N status of DAS intake within zip. If intake in a given zip code was < 50 dogs, intact population assumed to be 85% of total dog population

Source: Experian Current Year Estimates (Q2 2015), AVMA, Birth and Death Rate Estimates of Cats and Dogs 2004, ASPCA, Canine Perinatal Mortality Study 2012, DAS Chameleon database, Development of a Model for Estimating the Size and Dynamics of Pet Dog Population 1994, BFB, SNN, SPCA, DAS, DCAP, PFL, BCG analysis

Overview: Animal welfare organizations in Dallas should coordinate spay/neuter efforts

Summary of research and findings

- **Context:** Today, spay/neuter efforts across the city are not collaborated (e.g. limited data sharing) and not at a sufficient scale to reduce the population of intact dogs
- **Key takeaway:** By coordinating efforts, Dallas can reduce the population of intact dogs and control future population growth by sterilizing the population
- **Overall recommendation:** A coordinated coalition should be put in place with a goal to increase the number of spay/neuter surgeries

Recommendation

Work together to increase number of spay/neuter surgeries

- Interest organizations should hold a summit to assess pool of resources

Coalition to be formed with a common brand, mission, operating agreement or memorandum of understanding and share data across community

Continue to take a door-to-door canvassing approach to promote upcoming spay and neuter clinics

Identify community advocates or leaders

Rationale

- Community to have a targeted approach on spay/neuter surgeries
 - Focus on specific zip codes together to make a noticeable impact
- Provide community presence to promote animal welfare
- Current structure and productivity of CARE team will take 17 years to reach southern Dallas households twice¹
 - Volunteer organizations needed

1. Based on Pets for Life community outreach in Dallas; Source: Experian Current Year Estimates (Q2 2015), Dallas Animal Services Target area memos, Pets for Life; BCG analysis

Overview: The City of Dallas establish elementary school education programs related to pet ownership

Summary of research and findings

- **Context:** Community issues related to animals (e.g., dog bites, loose dogs) are potentially partly due to community views of pet ownership and responsibility
- **Key takeaway:** Establishing an "Animal Education" curriculum in DISD elementary schools has the potential to reach ~6k students each year
- **Overall recommendation:** DAS should coordinate with the city and DISD to establish an "Animal Education" class in DISD elementary schools

Estimated Impact

Methodology

- Estimate total student reach of "Animal Education" program based on number of teachers, classes, and average class size

Key Assumptions

- One teacher per class
- Three classes per teacher per day
- Average class size of 22 students
- 10 week program duration

~6k students reached / year

Resource Requirements

Methodology

- Project total program cost based on varying required number of teachers

Key Assumptions

- Teacher resource costs ~\$66k/yr

Incremental cost of
~\$396k / year

School based education programs focused on animal care have potential to hugely impact the community

Several **systemic issues in the community** can be addressed through animal education

Dallas faces many animal and animal care issues...

- **Dog bites¹** – direct danger to community residents
- **Loose dogs²** – damaging to health of animal population and overall community safety
- **Low S/N rates³** – short term issue leading to increased dog roaming and aggression, long term issue leading to out of control stray dog population

...and many of these issues can be connected to insufficient community animal education

- **Dog ownership** – conception of "owned" dog not tied to fenced/ secured house area
- **Dog health** – misunderstanding of effort and investment necessary to care for dog in home
- **S/N awareness** – dangerous stereotypes or preconceptions on animal fertility

Early education programs target issues during youth, **impact long term solution**

Programs, such as New Mexico "Making Tracks" Humane Education course focus on equipping students with a robust education in animal care

- Presentations on key animal care topics:
 - Dog bite safety & prevention
 - Presence and risks of loose dogs
 - Importance of S/N programs
 - General guidance on animal care

Early focus on animal care works to change cultural norms of pet ownership over time, leverages proven long term efficacy of other national early childhood education programs⁴

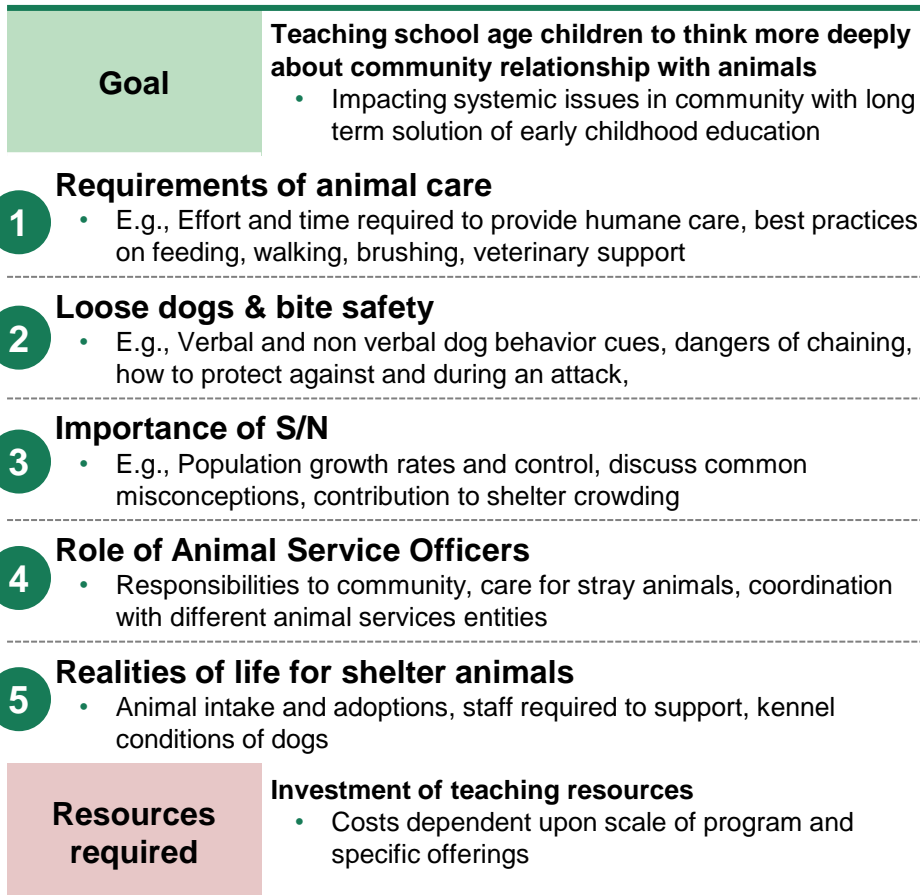


1. Increase in USPS dog attacks, 311 dog attack requests, 911 dog attack calls suggests Dallas dog bites increasing; 2. 32% of fatal dogs attacks in US from loose dogs (Sacks et al. (1989) study from The Ethology and Epidemiology of Canine Aggression by Randall Lockwood); 3. 85% of dogs in South Dallas are intact; 4. "Impacts of Early Childhood Programs" – Brookings Institute, demonstrates tangible positive impacts of national programs like State Pre-K, Head Start, and Early Head Start; Source: USPS, 311, 911, Sacks et al. (1989) study from The Ethology and Epidemiology of Canine Aggression by Randall Lockwood, Brookings Institute, DAS Chameleon database, Expert interviews, BCG analysis

Potential pillars of Dallas "Animal Education" program

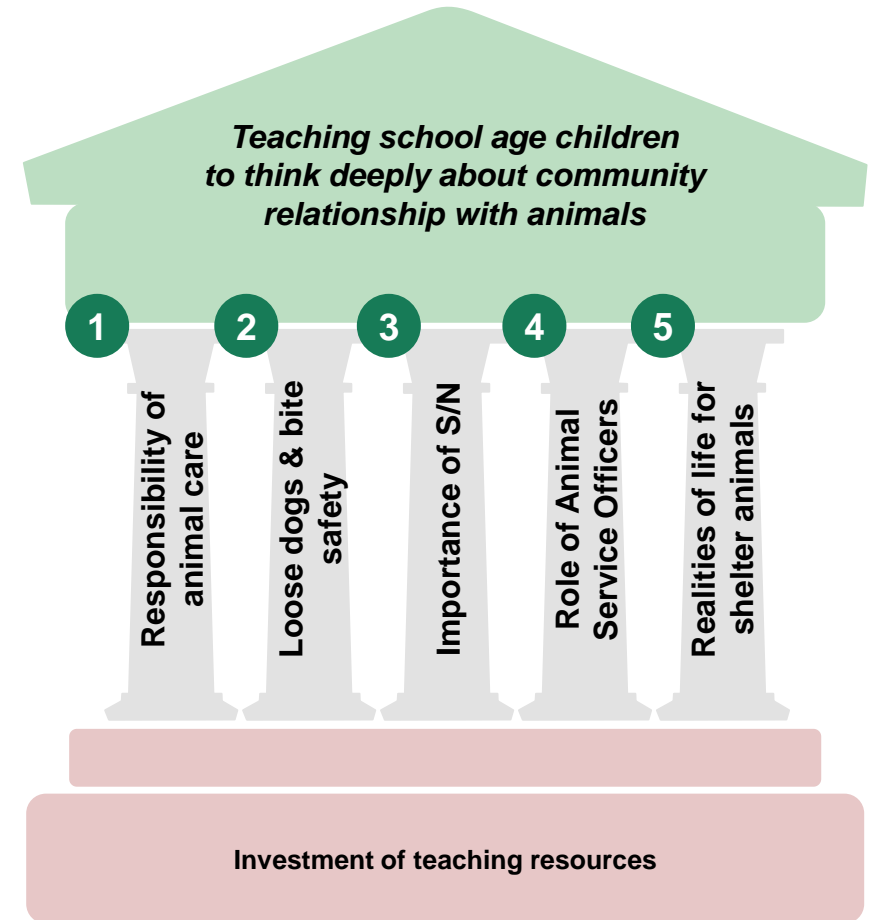
Aimed at directly impacting community's attitudes towards pet ownership

Program Overview



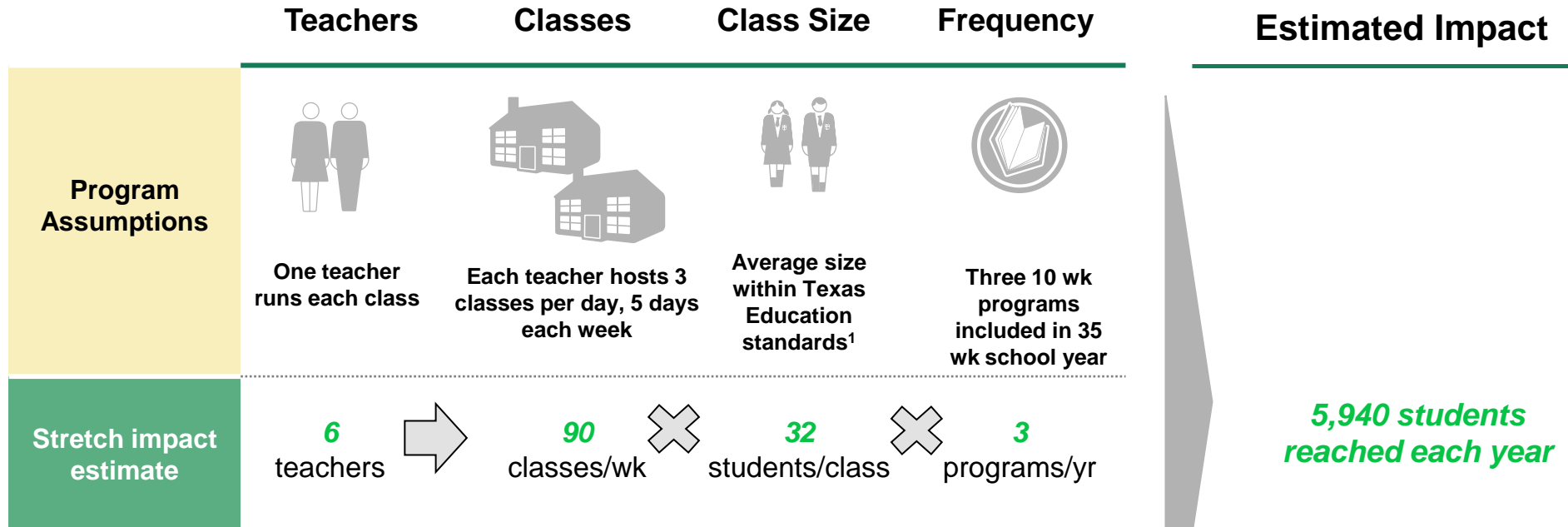
Note: Pillars modeled on New Mexico Humane Education program

Potential Animal Education Program



Note: Teachers to also distribute spay/neuter coupons and educational materials to students to take home

Estimated impact: Establishment of an "Animal Education" program has potential to reach ~6k students per year

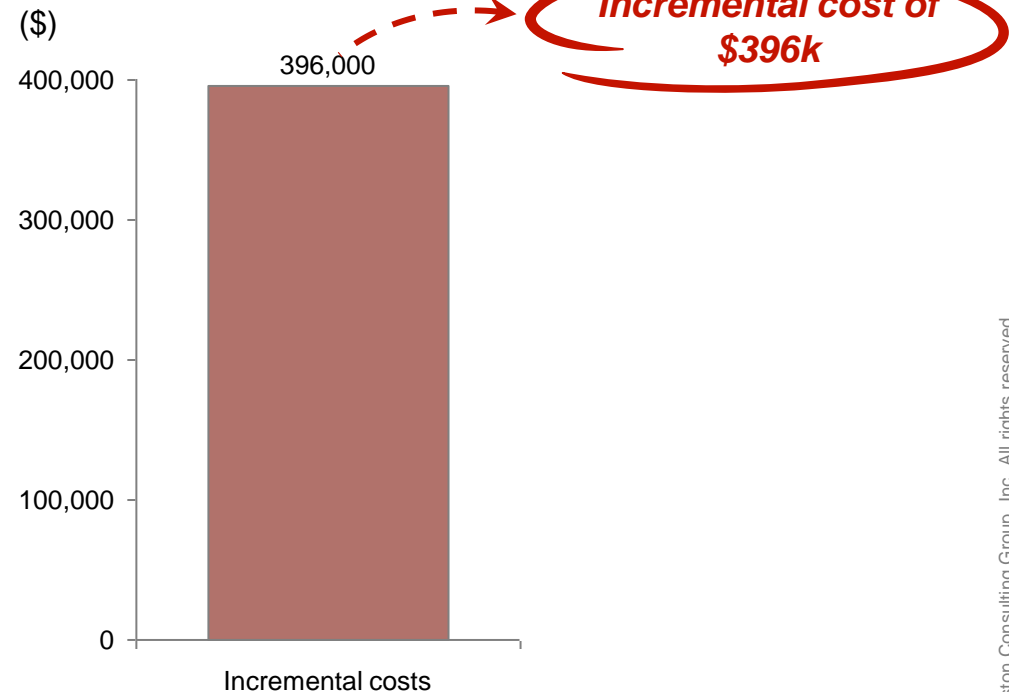


Resource requirements: Establishment of "Animal Education" program would incur cost of **\$396k yearly**

Key assumptions

Cost of teacher resource	\$66k/yr ¹
Number of teachers required	6

Resources required dependent upon adoption volume



1. Determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits; Source: Texas Tribute Salary Explorer, BCG analysis

Overview: DAS should enforce S/N ordinances in coordination with outreach

Summary of research and findings

- **Context:** In the past 24 months, 406 animal spay/neuter citations were issued and 199 were not responded to (49% of citations)
- **Key takeaway:** It is more effective for residents to become compliant by eliminating any barriers and continuing education
- **Overall recommendation:** ASOs should more actively enforce spay and neuter ordinances

Recommendation

ASOs should educate owners on:

- Available resources to become compliant
- Mandatory requirement
- Benefits of sterilization

ASOs to more actively enforce spay and neuter ordinances

More patrol shifts in the early evening when dogs are most active and residents are coming home from work (Recommendation 2.1)

Opportunity for owner to become compliant within certain timeframe before issuing a citation

Rationale

- Educating the community on available services has been successful in other cities
- Focusing on how to get the resident compliant can help build a relationship between ASOs and community

Agenda

Recommendation 5: Create a collaborative community of partners

Overview: DAS should work with CIS and other city departments to provide access to data and reports

Summary of research and findings

- **Context:** Current data request process proves frustrating to citizens, as only limited DAS data is published online in the form of monthly and annual reports
- **Key takeaway:** Aligning to principles of open data enables better community engagement
- **Overall recommendation:** DAS should work with CIS and other city departments to provide open access to Chameleon data and fill its vacant Database Analyst position

Recommendation / Rationale

- DAS should work with CIS to open its Chameleon database to the public in order to better support community inquiries and engagement
 - Tactically, team can leverage the already established Dallas Open Data Portal in order to easily put all DAS data online
- Additionally, DAS should recruit for and fill its vacant database analyst position in order to accomplish the above two goals
- The current data request process proves frustrating to community citizens who desire full data access¹
- Publishing Chameleon data online would facilitate stronger connection with the Dallas community through a focus on transparency

Key Resources

Methodology

- Difference in salary between Coordinator II and Manager II position to ensure proper skill sets

**Incremental cost of
~\$30k / year**

1. Dallas Animal Advisory Commission recording Jan 21, 2016; Note: DAS Org chart as of June 27, 2016, Texas Tribune, BCG analysis

Overview: The animal welfare community should share the workload of the strategic recommendations

Summary of research and findings

- **Context:** There are 150+ animal related organizations throughout Dallas, however, there is little collaboration between organizations to leverage or focus resources
- **Key takeaway:** Animal welfare community can better channel and coordinate their work and benefit from specialization, experience, and increased fundraising success
- **Overall recommendation:** Dallas community to create a plan and coalition to determine common goals and specific roles for each

Recommendation

- Form a coalition between Dallas animal welfare organizations
- Create a community plan for addressing the loose dog problem
 - Identify measurable community goals
 - Determine specific roles and commitments for organizations to play
- Coordinate efforts to implement plan
 - E.g., several rescue organizations put into play an owner surrender deflection program at DAS and apply for a joint grant from Best Buddies
- Track progress towards community goals and troubleshoot when implementation is off track

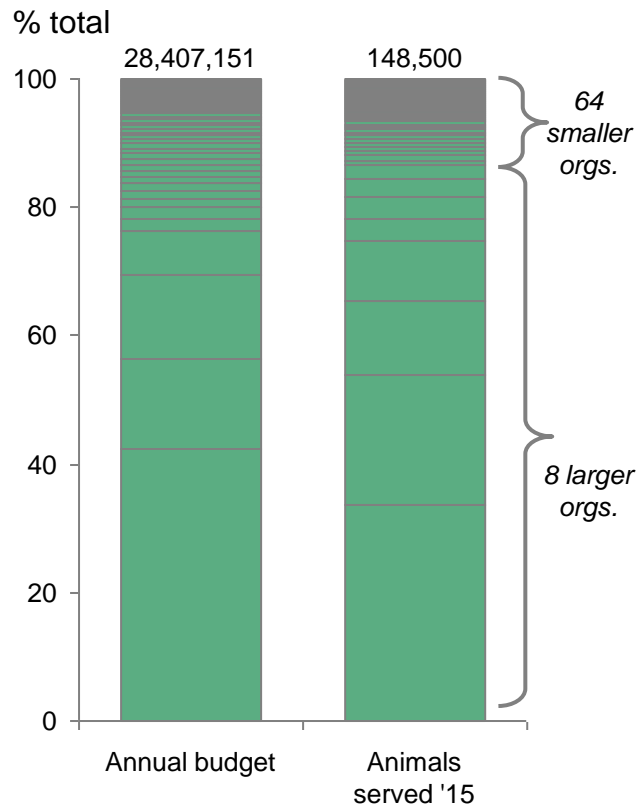
Rationale

- Animal welfare organizations have a lot to offer Dallas
 - Annual funding of \$28MM+ a year to impact at least 128k animals¹
- Dallas will need to rely on the resources of many of these organizations in order to address the loose dog population
- Currently, there is no organizing body or collective to coordinate and leverage the scale of Dallas animal welfare organizations
- In order to focus and gain buy in from these organizations, a coalition is necessary
- Animal welfare organizations can benefit from coordination to scale fundraising and volunteer efforts which all have identified as a catalyst for growth¹

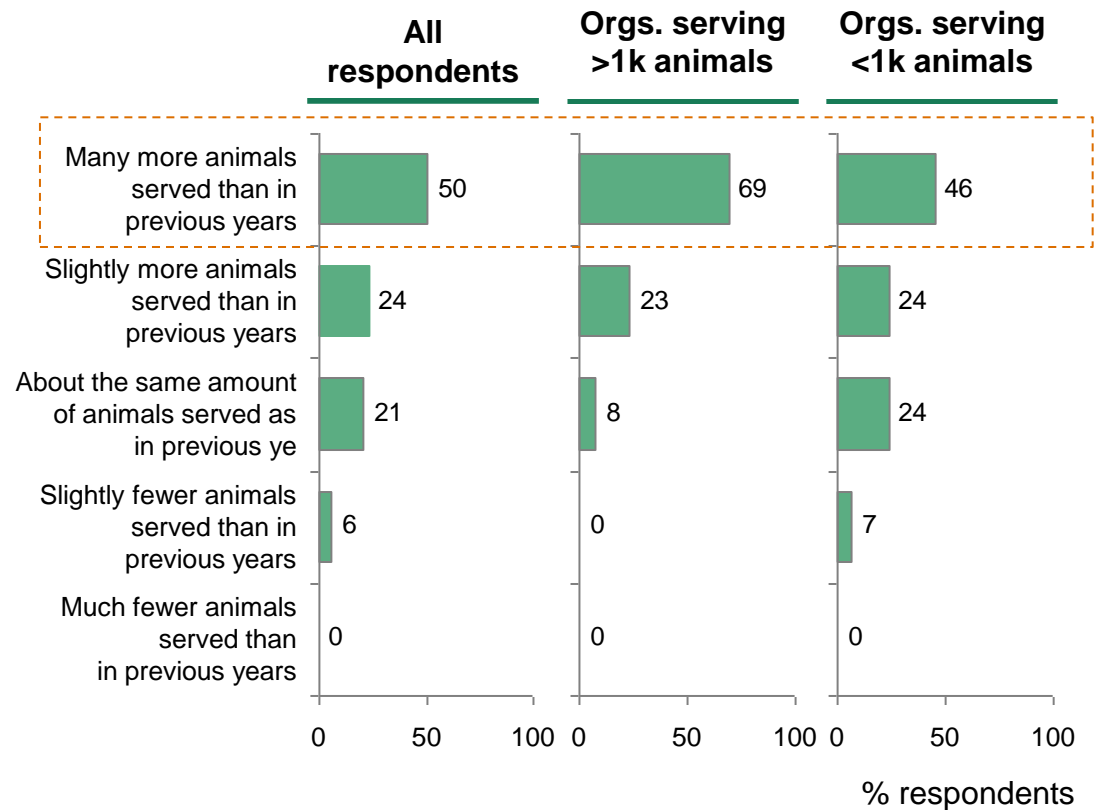
1: Rescue and Animal Organization Survey (n=72); Source: Expert interviews, BCG analysis

Animal orgs. have significant and growing capacity

\$28MM+ in annual budget to serve 148k+ animals



Majority are growing



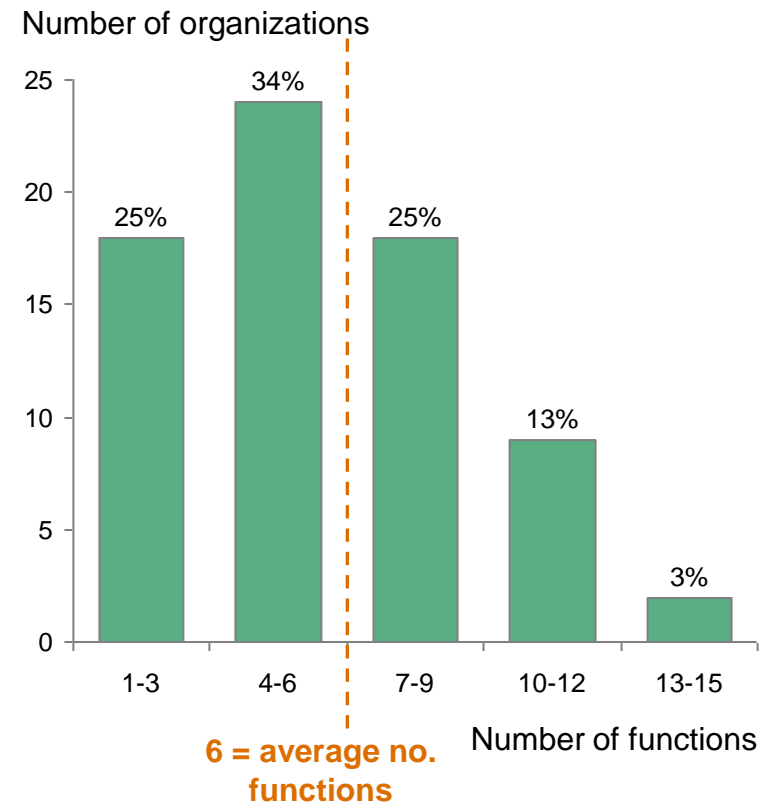
Question: What is the annual budget for your organization? (n=72); Question: Approximately how many animals did your organization impact in 2015 through fostering, boarding, owner education, etc.? (n=72); Question: How has your organization changed over the last three years in terms of how many animals it has impacted through fostering, boarding, owner education, etc.? (n=72); Source: Rescue and Animal Organization survey (n=72); BCG analysis

Organizations overlap across multiple functions...

Animal organizations have 15+ functions

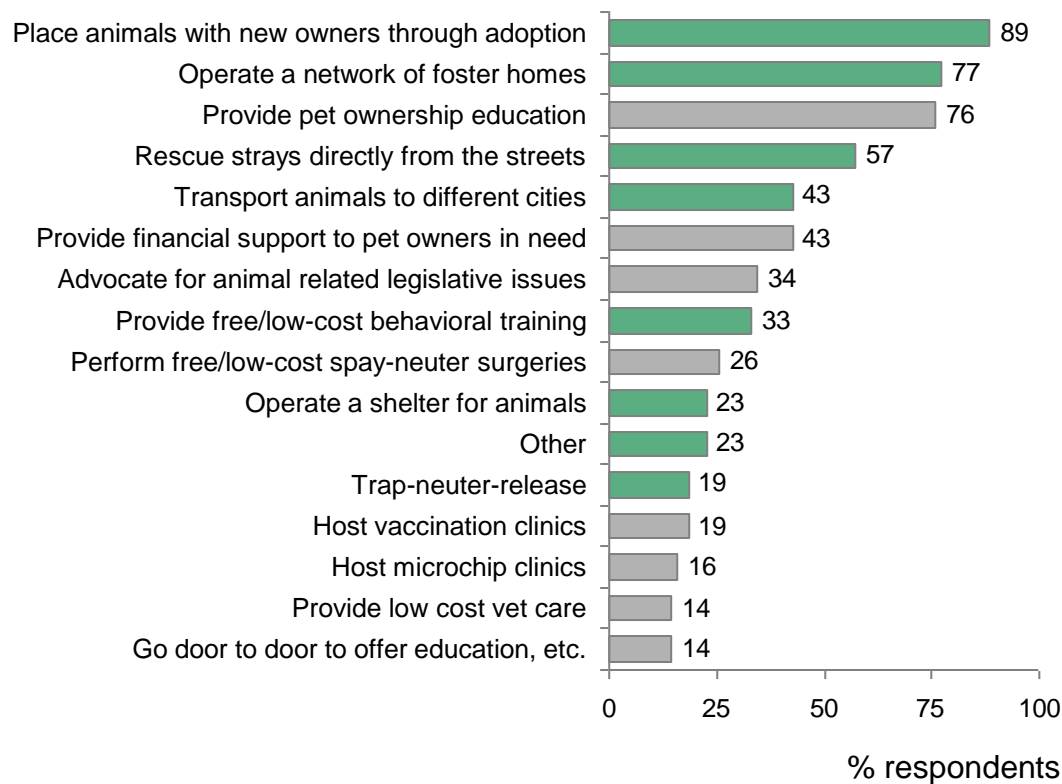
1. Place animals with new owners through **adoption**
2. Operate a network of **foster** homes
3. Provide **pet ownership education**
4. Rescue **strays** directly from the streets
5. **Transport** animals to different cities and states
6. Provide **financial support** to pet owners in need
7. **Advocate** for animal related legislative issues
8. Provide **free or low-cost behavioral training**
9. Perform free and/or discounted **spay and neuter**
10. Operate a **shelter** for animals
11. **Other**: humane investigations, emergency rescue
12. **Trap-neuter-release**
13. Host **vaccination clinics**
14. Host **microchip clinics**
15. Provide **low-cost veterinary care**
16. Go **door to door** in some communities to offer education, spay/neuter information, pet care etc.

On average, one organization participates in 6 different functions

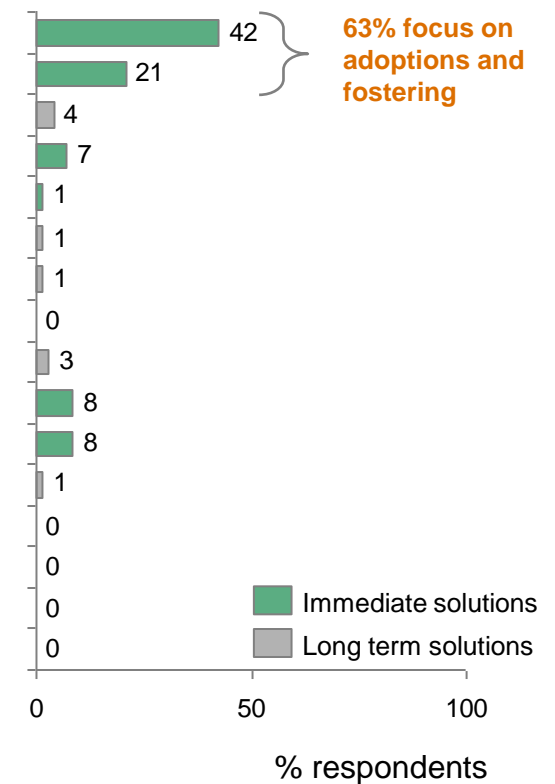


Most perform functions related to immediate positive outcomes for dogs rather than long term solutions

Orgs. perform multiple functions



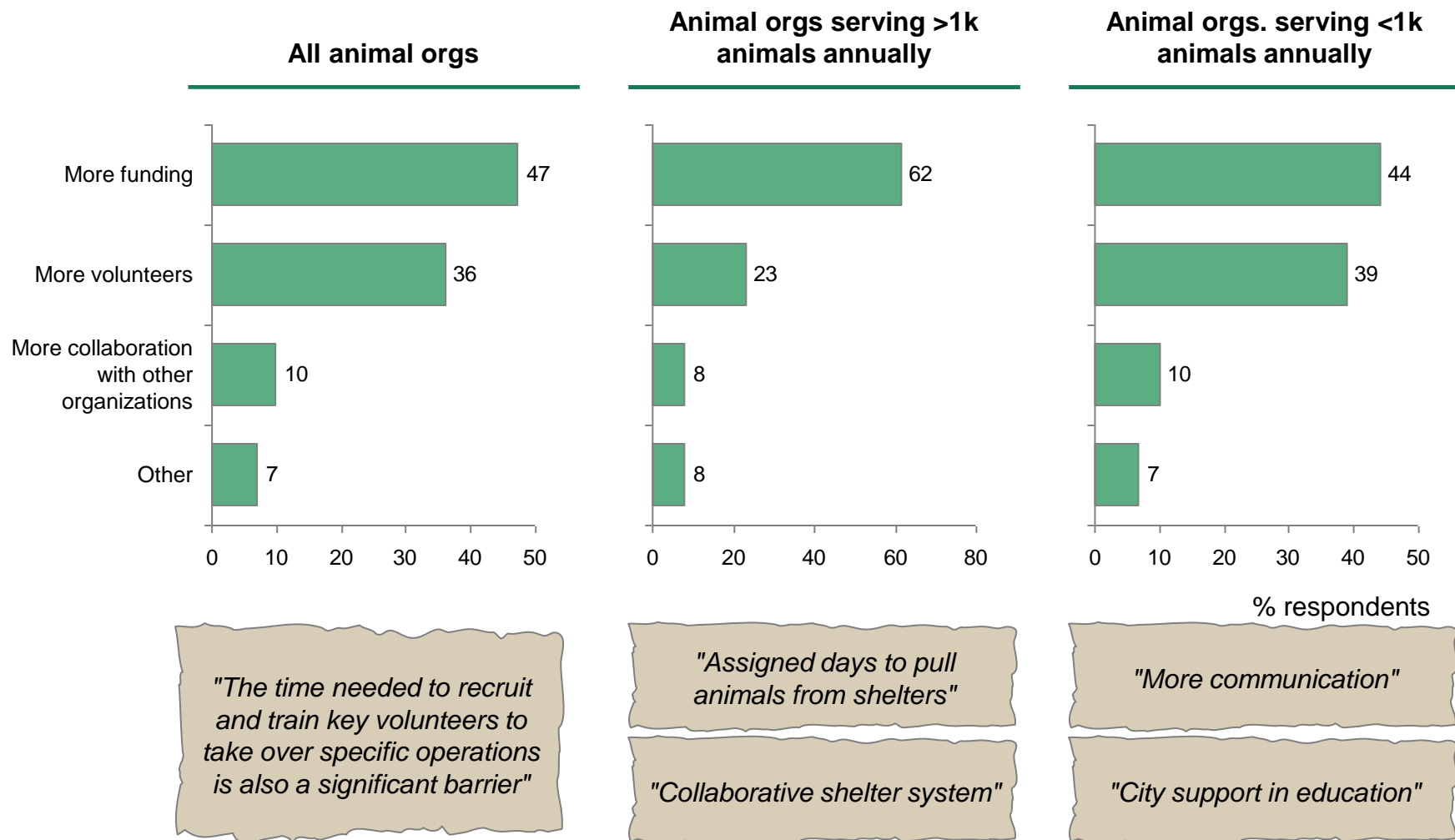
Orgs. focus on similar functions



Question: Which of the following activities does your organization participate in? (n=71); Question: Which of the following activities is your primary focus? (n=71); Source: Rescue and Animal Organization survey (n=72); BCG analysis

Animal orgs. could do even more for community with added funding and volunteers

What one thing would enable you to positively impact even more animals and humans?



Question: What one thing would enable you to positively impact even more animals and humans? (n=72); Source: Rescue and Animal Organization survey (n=72); BCG analysis

Overview: The animal welfare community of Dallas should engage in an inclusive, fact-based dialogue

Summary of research and findings

- **Context:** Today, the animal welfare environment is charged with emotion. DAS often finds itself in the middle of emotional and sometimes negative dialogue with some organizations distrusting DAS
- **Key takeaway:** By increasing transparency and open communication, DAS can establish productive dialogue and build trust with the city
- **Overall recommendation:** DAS should engage community in a fact-based, inclusive dialogue and refine social media policy to be similar to that of Dallas Police Department

Recommendation

- DAS to establish a fact-based, inclusive dialogue with the community
 - Proactively address mistakes
 - Share data with community then engage community on a dialogue around facts
 - Celebrate its victories publically
- Refine social media policy to be similar to that of DPD's policy

Rationale

- The Dallas animal welfare environment is emotionally charged
 - "Groups of people sit at home and get all emotionally invested in every dog that is euthanized"¹
- DAS becomes embroiled in negative, emotion fueled dialogue
 - DAS Accountability Facebook page often posts about DAS missteps
 - Frequent open records request that consume the time of an entire employee
 - Negative headlines in the Dallas Morning News target DAS as a problem

1. One local director of an animal welfare organization; Source: Rescue and Animal Organization Survey (n=72); expert interviews; Dallas Police Department General Order, Section 214; BCG analysis

Social media policies promote responsible online behavior

Enforced policies typically improve value of discourse and prevent reputational damage for an org

Dallas Police Department has a social media policy that applies to off-duty online behavior

"Employees are free to express themselves as private citizens on social media sites to the degree that their speech and/or language does not impair working relationships of the Department, impede the performance of their duties, impair discipline and harmony among coworkers, or negatively affect the public perception of the Department."

DAS may benefit from using standardized, solutions-oriented responses to critical discourse

Representative historical comments directed towards DAS	Alternative (recommended) Response
When DAS was accused of being "evil" for euthanizing a dog	"At DAS our goal is to not euthanize any animal that could be placed. We haven't achieved that goal yet, but we are making progress every day through expanded adoptions and transfer partners. Just like you, we don't like seeing any animals euthanized. To find out how you can help go to [link]"
Regarding DAS euthanizing animals	"When our facilities at DAS are full and we do not have transfer partners available to take the animals, we have the very difficult responsibility of deciding which animals are euthanized. We do this through a standard and defined process which you can view here [link]. In the future we hope that no animals will be euthanized through expanded adoptions and transfers."
Regarding a private individual reporting to have saved many animals	"At DAS we know we can't save every animal. Your actions are helping the animals in our city. Thank you."
Regarding anti-DAS conversations	"Your opinion is important to DAS. We'd like to understand what policies and or procedures we could improve to better serve the community in the future"
Regarding loose dogs in Dallas	"DAS has an obligation to the residents of Dallas. We take your safety seriously and are doing [A, B, C] to address these concerns."

Agenda

Recommendation 6: Make animal services a priority and strengthen accountability within the city government

Overview: DAS should become an independent municipal department

Summary of research and findings

- **Context:** Currently, DAS operates within Dallas' Code Compliance division
- **Key takeaway:** By removing DAS from Code Compliance and making the organization a standalone department, DAS could have the greatest level of control and least risk when executing strategic plan
- **Overall recommendation:** Dallas Animal Services should become a standalone department that reports directly to an assistant city manager

Recommendation / Rationale

Dallas animal services should become a standalone department instead of operating under Dallas' code compliance division

- Organization would require additional overhead staff, including but not limited to finance and humane resources officials
- DAS head official would report directly to city manager

Becoming standalone could increase DAS's effectiveness

- Standalone option provides improvement across all three levels of governance
- No clear privatization partner
- Divesting DAS would give the city less control and increase risk when executing strategic plan
- No comparative advantage to privatization to justify complex change process

Key Resources

Methodology

- Average between benchmarking public sector and animal services organizations and current transfer cost

Key Assumptions

- Finance positions = \$50k/yr
- Information technology positions = \$50k/yr
- Human Resources positions = \$50k/yr
- Communications positions = \$50k/yr

**Incremental cost of
~\$310k / year**

Organization and Governance models impact three key areas

Key Areas	Impact on Governance
<p>1</p> <p>Resources and Talent</p>	<p><i>How can animal services acquire resources?</i></p> <p>Impacts how resources and talent can be acquired, including:</p> <ul style="list-style-type: none"> • Funding, staff, procurement, donations, volunteers, and partnerships
<p>2</p> <p>Communication and Coordination</p>	<p><i>How can animal services align goals and values?</i></p> <p>Impacts communication and coordination of effort, among:</p> <ul style="list-style-type: none"> • Staff, volunteers, non-profits, rescue groups, and other partners
<p>3</p> <p>Delivery and Execution</p>	<p><i>How can animal services ensure successful service delivery?</i></p> <p>Impacts accountability, delivery, and execution of services, including:</p> <ul style="list-style-type: none"> • Adoptions, medical care, animal quarantine, cruelty investigations, etc.

When considering animal services operations, there are multiple governance structures to consider

Subdivision within a department

Operates all facets of animal services, but reports to the head of another department, creating a layer between animal services and city management

- Dallas, TX
- Jacksonville, FL
- Houston, TX

- Las Vegas, NV
(Animal control)
- Atlanta, GA
(Animal control)

Standalone Department

Operates all facets of animal services and reports directly to city management

- Los Angeles, CA
- San Antonio, TX
- San Diego, CA
- Austin, TX
- Miami, FL

- Reno, NV
(Animal control)

Partially Privatized¹

City contracts part of its animal services operations to an organization, typically a nonprofit, that can operate animal services on behalf of the city

- Las Vegas, NV
- Reno, NV
- Atlanta, GA

Note: above cities' animal control functions are government operated

Completely Privatized

City contracts all animal services operations to an organization, typically a nonprofit, that can operate animal services on behalf of the city

- New York, NY
(although not considered a benchmark to Dallas)

1. Typically, cities/counties will only privatize their animal shelter operations and operate field collection themselves; Note: If operations are partially privatized, the part of the organization that is not privatized can be a subdivision within a department or a standalone department within the city/county; Source: BCG analysis

Each structure has different pros and cons and impact on key areas

	1 Resources and Talent	2 Communication and Coordination	3 Execution and Accountability
Subdivision within a department	<ul style="list-style-type: none"> ✗ Hiring leadership and staff difficult due to lower profile & complexity ✓ Can receive layover funds from parent department 	<ul style="list-style-type: none"> ✗ Lacks a "seat at the table" with senior city leadership ✗ Perceived to not prioritize animal welfare underneath Code 	<ul style="list-style-type: none"> ✗ Lower-level leadership role lacks authority to execute ✗ Multiple layers of mgmt cloud accountability
Independent department	<ul style="list-style-type: none"> ✓ Hiring easier due to higher profile ✗ Competes with other departments for budget 	<ul style="list-style-type: none"> ✓ Greater control over messages and access ✓ Demonstrates animal services as a priority 	<ul style="list-style-type: none"> ✓ Single accountability sharpens priorities ✓ Least likely to experience conflicts of interest
Partially privatized (Shelter only)	<ul style="list-style-type: none"> ✓ Hiring easier due to partial separation from city ✓ Fixed funding from city, but can receive donations 	<ul style="list-style-type: none"> ✓ Partial control over message, but removed from government ✗ Greater freedom of action Lack of coordination between shelter and animal control 	<ul style="list-style-type: none"> ✓ Greater operating potential ✗ Moderate effort in standing-up new structure
Completely privatized (Field + Shelter)	<ul style="list-style-type: none"> ✓ Hiring easiest due to complete separation from city ✓ Fixed funding from city, but can receive donations 	<ul style="list-style-type: none"> ✓ Free control of message, but removed from government ✓ Greatest freedom of action 	<ul style="list-style-type: none"> ✓ Greatest operating potential ✗ Org lacks accountability to city, potential conflicts exists ✗ No clear organization today to fill this need immediately ✗ Heavy setup effort

Note: Typically, cities/counties will only privatize their animal shelter operations and operate field collection themselves.
Source: BCG analysis

When estimating the cost for DAS to become a standalone department, there are two main approaches

Public Sector and Animal Services Benchmarks

Based off information gathered from BCG public sector benchmarks and benchmark cities/counties, we determined the average employees DAS needs

Position	FTEs Required	Incremental Needed	Estimated Price
Comm	1	0	\$0
Finance	6	4	\$200k
HR	3	1	\$50k
IT	2	0	0

\$250,000

Current Transfer Costs

Currently, City of Dallas spreads overhead costs (Finance, HR, IT, Communications) across all departments

- Dallas bases this "City Forces" charge off a percentage determined from each department's financial statements
- In FY2015 DAS had a "City Forces" of \$369,063.20

\$370,000

Using these approaches, we estimate becoming a standalone department will cost around ~\$310,000

Overview: The City of Dallas should increase funding for Dallas Animal Services to support recommendations

Summary of research and findings

- **Context:** Currently, compared to peers in communities comparable to Dallas, DAS is underfunded by ~10%, or \$0.78 per person
- **Key takeaway:** By increasing funds going to animal services, Dallas can better support the implementation of other recommendations
- **Overall recommendation:** City of Dallas and private funders should fully invest in the recommendations outlined in the report

Recommendation

City of Dallas and private funders should increase funds going to Dallas Animal Services to promote the effective implementation of recommendations

Rationale

The City of Dallas has been increasing funds going to Dallas Animal Services for the last three years

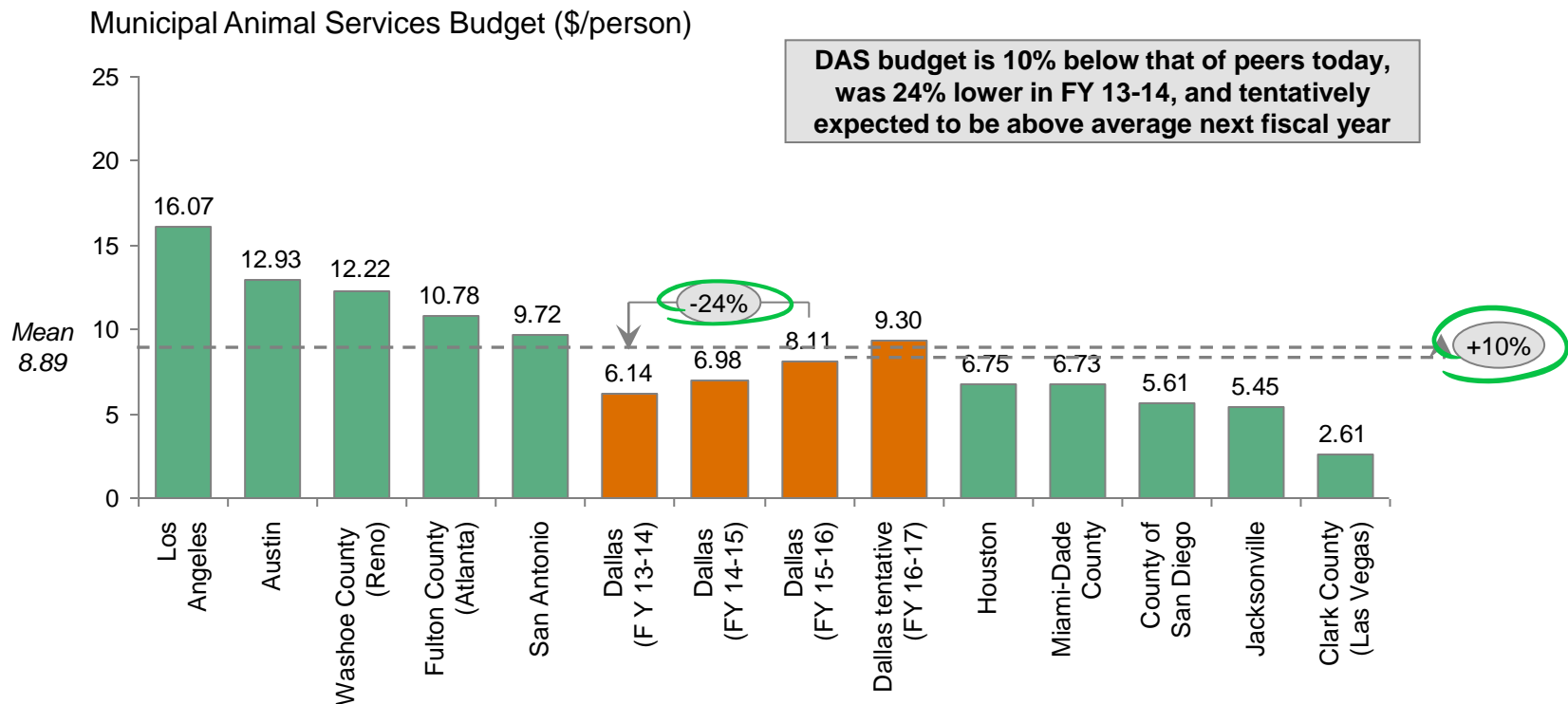
- Municipal shelter receives on average \$0.78 per person less than other comparable shelters.

The community of Dallas (municipal budget and 501(c)(3) budgets) has a deficit of \$6.50 per person, accounting to over \$8MM

DAS operates with budget ~10% below peer average...

Proposed FY 16-17 budget inline with peers

Municipal Spending on Animal Services for Benchmark Cities

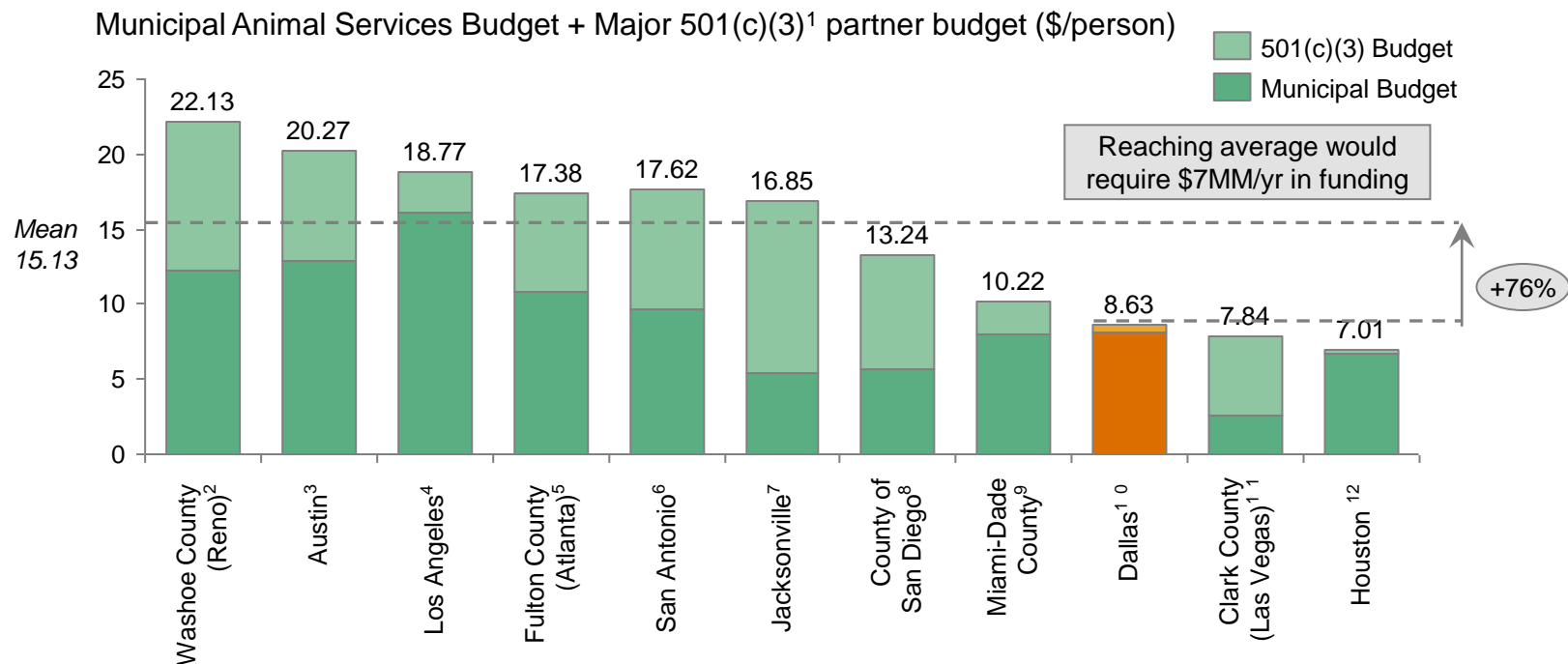


Note: Mean excludes Dallas; Source: Interviews with management from Los Angeles Animal Services, Washoe County Animal Services, County of San Diego Animal Services, San Antonio Animal Care Services, Fulton County Animal Services Austin Animal Services, Dallas Animal Services FY 2015 General Fund Budget, Jacksonville Animal Care and Protective Services, and Clark County Animal Control.), Lifeline Animal Project 990 Tax Form (2014), Miami-Dade Animal Services Projected Budget (2015), US Census Bureau 2013 Population Estimate and BCG analysis

...and significantly below cities with explicit 501(c)(3)s partnerships which provide ancillary funding

100% of partner budget to demonstrate potential funding, however, full budget likely not fully dedicated to shelter's needs

Municipal and Non-Profit Spending on Animal Services for Benchmark Cities



1. Outside of Dallas, includes only 501(c)(3)s that were highlighted during benchmarking interviews as being close partners with either contractual obligations, an MOU, or similar; 2. Budget includes contracted partner: Nevada Humane Society; 3. Budget includes MOU partners: Austin Pets Alive! and Austin Humane Society; 4. Budget includes MOU Partners: Best Friends Animal Society and Found Animals Foundation; 5. Budget includes close partner: The Atlanta Humane Society; 6. Budget includes MOU and contract partners: Animal Defense League, San Antonio Humane Society, San Antonio Pets Alive!; 7. Budget includes contracted partner: The Jacksonville Humane Society and close partner First Coast No More Homeless Pets. 8. Budgeted includes MOU partner San Diego Humane Society; 9. Budget includes major partner: Humane Society of Greater Miami; 10. Budget includes DAS budget FY 2015-2016 and DCAP; 11. Budget includes contract partner: The Animal Foundation; 12. Budget includes contracted partner: Rescued Pets Movement. Note: Mean excludes Dallas; Source: Interviews with management from Los Angeles Animal Services, Best Friends Animal Society Washoe County Animal Services, County of San Diego Animal Services, San Diego Humane Society, San Antonio Animal Care Services, Fulton County Animal Services Austin Animal Services, Austin Humane Society, Austin Pets Alive!, San Antonio Humane Society, Dallas Animal Services, Humane Society of Greater Miami, Jacksonville Animal Care and Protective Services, Jacksonville Humane Society, Austin Pets Alive!, and Clark County Animal Control. Animal Foundation 2015 Yearly Report, the Nevada Humane Society 990 Tax Form (2014), San Antonio Pets Alive! 990 Tax Form (2014), Animal Foundation 990 Tax Form (2014), Animal Defense League 990 Tax Form (2015), Lifeline Animal Project 990 Tax Form (2014), Atlanta Humane Society 990 Tax Form (2014), Rescued Pets Movement 990 Tax Form (2014), Miami-Dade Animal Services Projected Budget (2015), First Coast No More Homeless Pets 990 Tax Form (2014), US Census Bureau 2013 Population Estimate and BCG analysis

Overview: The City of Dallas or DAS should hire a project manager and data analyst

Summary of research and findings

- **Context:** There is not an available resource to take lead on the strategic recommendations
- **Key takeaway:** It will be difficult to coordinate the implementation of all recommendations unless a project manager is put in place
- **Overall recommendation:** Project manager and analyst should be hired to ensure initiatives are coordinated, track successes, and reprioritize as necessary

Recommendation

Project manager should be hired in order to oversee recommendations for strategic plan by:

- Aligning and collaborating with the community on overall efforts for all recommendations
- Tracking effectiveness of controlling loose dog population
- Tracking effectiveness of recommendations on increasing LRR
- Overseeing the establishment of a transport program through different programs at DAS and throughout the community

Analyst should be responsible for tracking progress and generating weekly reports

Resource Requirements

Key Assumptions

- Project manager = \$100k/yr
- Analyst = \$58k/yr¹

**Incremental cost of
~\$158k / year**

1. Determined by finding the median salary of a comparable position on the Texas Tribune Salary Explorer, and then applying an extra 20% to that salary to account for benefits; Source: Texas Tribune, BCG analysis

Overview: The Animal Advisory Commission should take on additional problem-solving responsibility

Summary of research and findings

- **Context:** Currently, Dallas Animal Advisory Commission contains 0 subcommittees, limiting the commission's ability bring about change
- **Key takeaway:** Subcommittees can take on specific and detailed work when a task is too complex and time consuming to handle in meetings with the entire board.
- **Overall recommendation:** Animal Advisory Committee should establish 5 subcommittees to implicitly increase responsibility of the commission and its members

Recommendation

Dallas Animal Advisory Commission should consist of five subcommittees, each with 3 commission members:

- Public Safety Subcommittee
- Shelter Management Subcommittee
- Animal Cruelty Subcommittee
- Public Relations Subcommittee
- External Relations Subcommittee

Dallas Animal Advisory Commission should also implement policies that address and limit risks for conflicts of interest and regulatory capture

- Establishing a conflicts of interest clause that limits participation
- Requiring no external organization or other nonprofit board have 2 members that are also on Dallas Animal Advisory Commission

Rationale

- Subcommittees increase overall efficiency of boards due to less time spent going over detailed topics in commission meetings that would best be explained in small groups
- Subcommittees with member requirements allow for experts to provide insights
- Limiting conflicts of interest and regulatory capture ensures Animal Advisory Commission will make decisions in the best interest of Dallas citizens

Given DAS's mission and strategic plan, we recommend 5 subcommittees consisting of 3 members each

City of Dallas Animal Advisory Commission

Public Safety

- One member with a background in law enforcement
- One member with a background in public health
- One additional commission member

Shelter Management

- One member with a background in shelter operations
- One business owner, leader, or executive
- One additional commission member

Animal Cruelty

- One member with a background in animal welfare advocacy
- One member with a background in law
- One additional commission member

Public Relations

- One member with a background in Public Relations/Media
- One city or county official
- One additional commission member

External Relations

- One member from a high-volume spay/neuter clinic
- One member from a DAS transfer partner
- One additional commission member

Committees composed of three members with specific expertise. Commission shall establish rules to limit conflicts of interest and board independence from Dallas Animal Services.

Overview: DAS should be exempt from the civil service hiring process

Summary of research and findings

- **Context:** It can take up to 9 months to fill an open position
- **Key takeaway:** Being exempt from civil service hiring will streamline the hiring process, allow the organization to employ top talent, decrease the time to fill open positions, and allow DAS to hire candidates with specialized training that could otherwise be difficult for civil service screenings
- **Overall recommendation:** Dallas Animal Services should adopt a civil service exemption for hiring

Recommendation

- DAS should adopt civil service exemption for hiring including:
 - Job postings
 - Resume screening
 - Interviews
 - etc.

Rationale

- Can take up to 9 months to fill a position
- Good candidates find employment elsewhere
- DAS has 14% of positions unfilled
- Being exempt from civil service hiring process allows ability to:
 - Streamline hiring process
 - Employ top talent
 - Fill positions easier/quicker

Note: Incremental costs will not be incurred if DAS becomes an independent department (Recommendation 6.3)

Agenda

Recommendation 7: Ensure efficiency by measuring outcomes and increasing volunteers

Overview: DAS should align its organizational structure and employee performance with its mission

Summary of research and findings

- **Context:** Embarking on necessary steps to address the recommendation within this report is a significant undertaking and ownership and accountability are needed to realize intended results. DAS organization will be key player for majority of recommendations
- **Key Takeaway:** Initiative ownership and accountability will increase likelihood of success
- **Overall recommendation:** Identify recommendation owners within DAS to be accountable for recommendations; establish productivity metrics across DAS to support mission

Suggested recommendation

Identify individuals with DAS organization to "own" each of the recommendations

- Individual recommendation owners should be assigned where coordination with groups outside of DAS is needed
- Recommendations to be implemented by DAS only should have operational units assigned with appropriate manager leading efforts

Establish operational/productivity metrics for specific shelter functions

Hire incremental data analyst for mission & ops scorecard and reporting

Incremental cost of ~\$58k / year

Rationale

Not possible for a single individual within DAS to effectively oversee and manage implementation of all of the recommendations

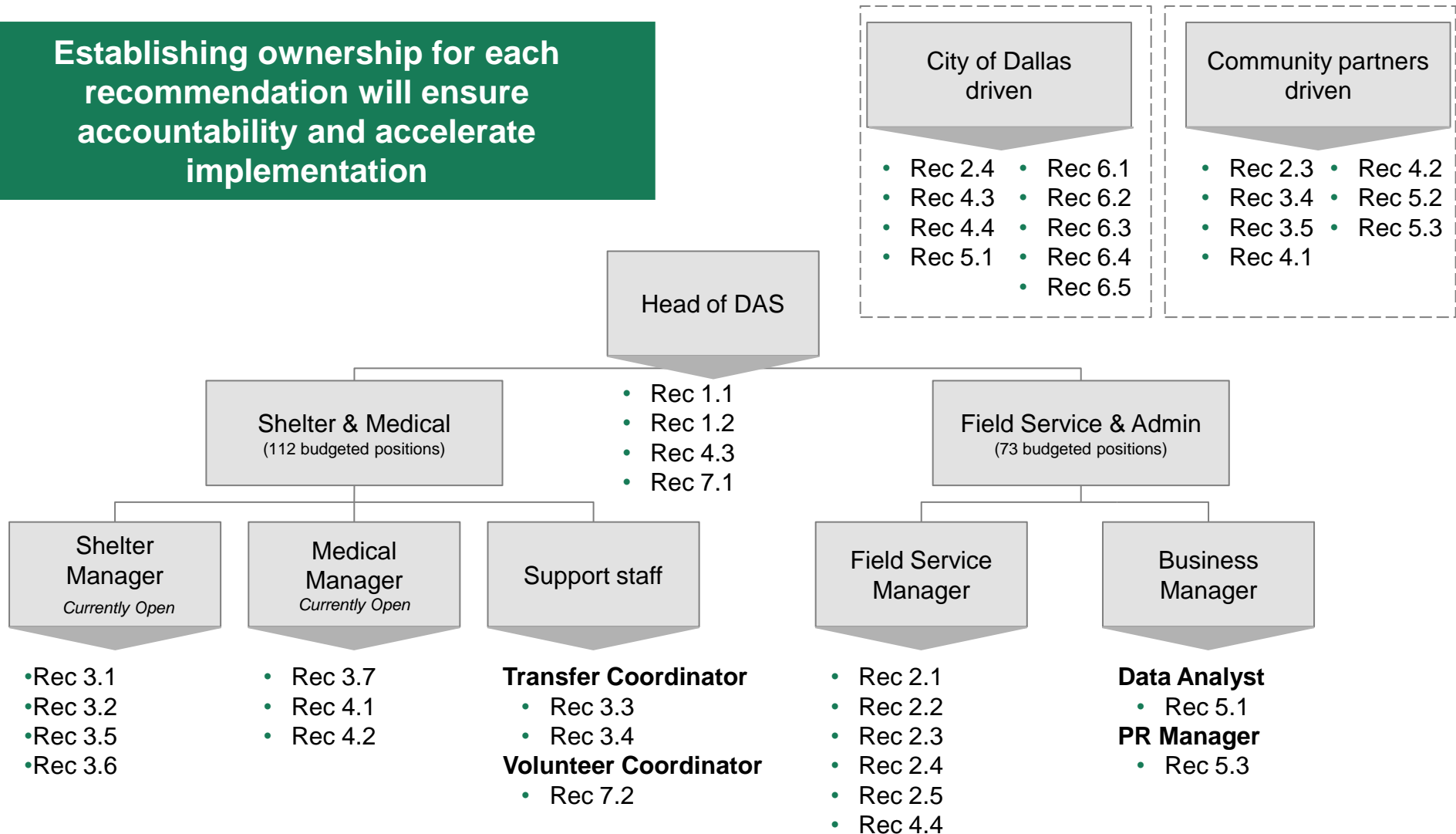
Increases likelihood of reaching intended outcome of each recommendation

Productivity metrics enable tracking of progress/efficiency gains and to hold initiative owners accountable

Recommendation ownership shared across Dallas City, DAS, and Non-Profit organizations

Representative organizational structure

Establishing ownership for each recommendation will ensure accountability and accelerate implementation



Productivity metrics within DAS's control should be established and tracked

Representative metrics-- to be decided by DAS

Field team metrics	OTC intake team metrics	Shelter team metrics	Medical team metrics
Field intake	OTC owner surrenders deflected with aid	Live release rate	Live release rate
Intake per ASO		Length of stay	Spay/neuter per hour and per day
Citations per ASO		Return rate for adopted dogs	% of dogs experiencing health decline in DAS
CARE team metrics <ul style="list-style-type: none"> • People reached • Warnings issued • Citations written 		'Share of wallet' for top 20 transfer partners	% of dogs euthanized by intake
			Asilomar health categorization

Productivity metrics for DAS should be limited to actions DAS can control

Overview: DAS should increase the scale of its volunteer program with a greater variety of roles

Summary of research and findings

- **Context:** DAS's volunteer program realizes low full-time employee equivalents from volunteer hours; DAS recently hired a full-time volunteer coordinator in October 2015; DAS volunteers currently limited in ways to help
- **Key takeaway:** After expanding volunteer program DAS could realize productivity and operational gains
- **Overall recommendation:** Increase the number of tasks volunteers are able to help DAS with; increase total volunteer hours garnered from volunteer program

Suggested recommendation

Increase the number of full-time employee equivalents volunteer program is able to source from hours worked by volunteers

Increase the number of tasks volunteers are allowed to participate in such as:

- Helping with adoptions
- Helping at lost and found desk
- Transporting dogs to rescue partners
- Administering medical treatment
- Fostering animals
- Setting and monitoring traps
- Creating reports or analysis from Chameleon data

Hire volunteer coordinator

Incremental cost of ~\$51k / year

Rationale

DAS Westmoreland location currently realizing only ~1.2 FTE equivalent of work on annual basis from volunteer hours¹

- Operational efficiencies could increase if more employee equivalents utilized from volunteers

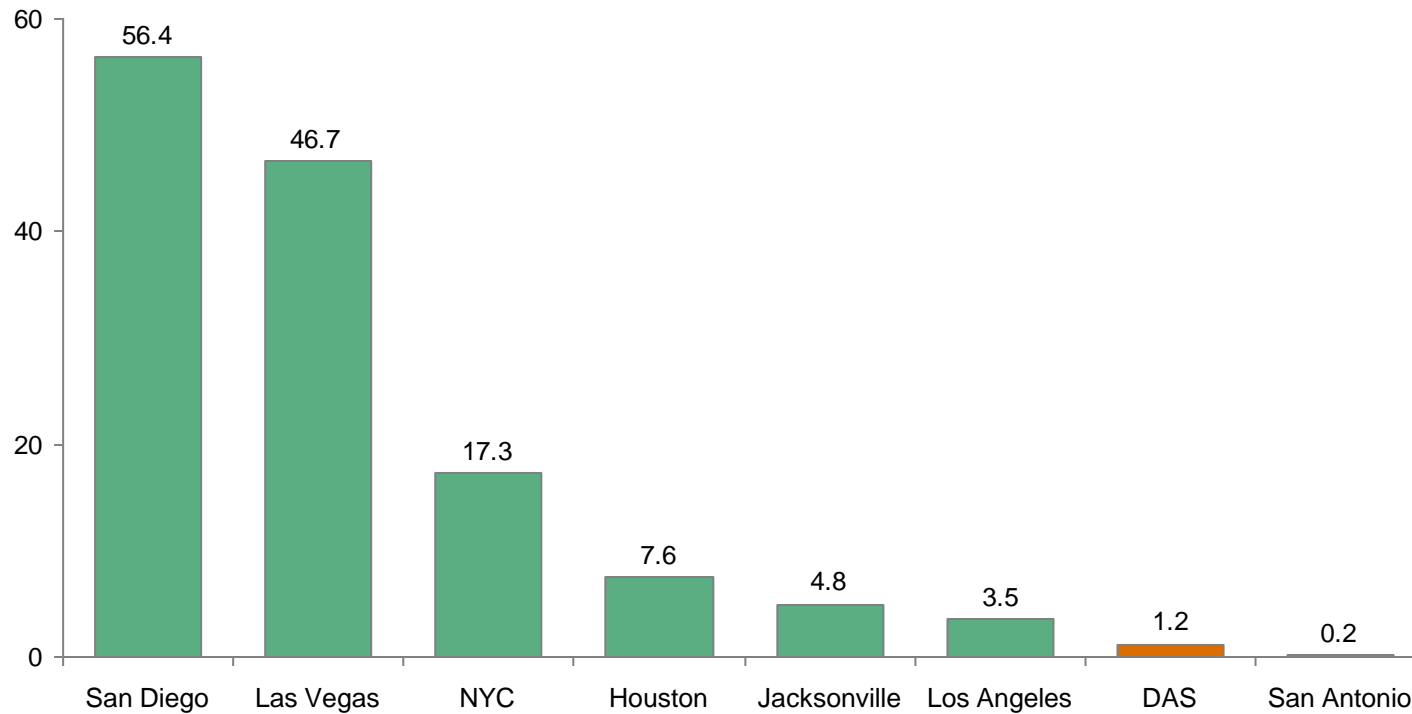
Other shelters routinely garner higher employee equivalents from volunteers than DAS

Expanding scope of volunteer tasks increases impact on shelter efficiency from volunteer hours

1. See backup slide for comparison with animal shelter from other cities; Source: DAS volunteer hour spreadsheet; BCG analysis

Increase the scale of volunteer program with greater variety of roles to garner more volunteer hours

FTE Equivalents from volunteer hours





Thank you

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Loose Dogs in Dallas: Strategic recommendations to improve public safety and animal welfare in Dallas

BCG working materials

August 2016

THE BOSTON CONSULTING GROUP

Context

In June 2016, BCG was engaged on behalf of the city of Dallas to evaluate opportunities to improve public safety, while safeguarding and improving animal welfare. BCG's assignment was to:

- Quantitatively understand the supply of dogs in Dallas
- Identify community priorities given varying constituent perspectives
- Identify best practices from other animal services organizations across the US
- Identify and prioritize levers to maximize impact on public safety and animal welfare
- Synthesize findings in a strategic plan for the community of Dallas to achieve its goals

To develop a comprehensive understanding of the situation, we employed a team of consultants for eleven weeks. Our recommendations are based on:

- **Qualitative interviews** with nearly 100 stakeholders in Dallas
- **Quantitative analysis** of all available data sources including the DAS database (Chameleon), 311 service requests, and 911 Record Management System (RMS) calls
- **Primary research** including a loose dog census, resident survey, and a survey of rescue/animal welfare organizations
- Review of **third-party studies** from national organizations and academic studies
- **Benchmarking** of animal services organizations in ten highly comparable cities across the US, including 30 qualitative interviews and desk research to understand best-practices

BCG scope was constrained by:

- Focus on **dog population² only** (vs. all animals) given link to public safety
- Not inclusive of process or recommendations surrounding **animal cruelty investigation**
- BCG efforts focused on improving the current situation, **not assessing prior events** unless critical to path forward

1. Live Release Rate from shelter; 2. Despite focus on dogs, most recommendations related to increasing live release rate expected to have significant positive impact on cats and other animals entering DAS

This document contains BCG working materials

BCG completed three deliverables:

In this document

White-paper

Initiative detail

Working materials

Document contains written explanation of:

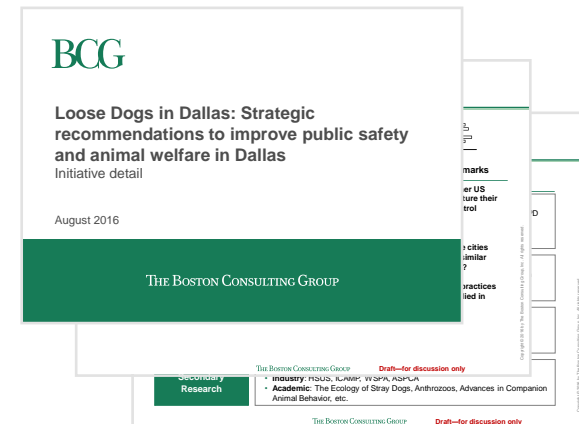
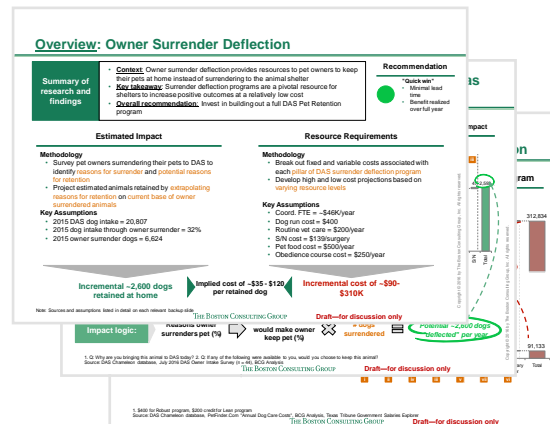
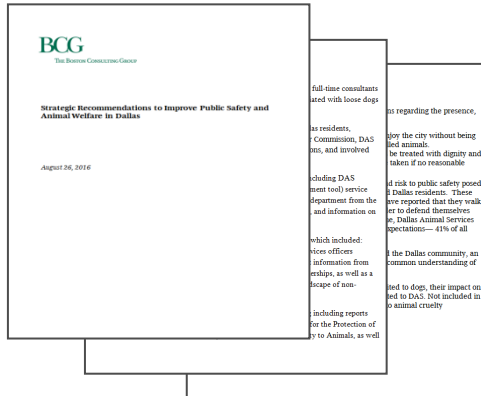
- Project background
- Relevant context and facts
- BCG recommendations
- Supporting rationale

Contains details on each recommended initiative:

- Background context
- Key assumptions
- Sizing of potential (intake, outcomes, etc)
- Cost to execute

Additional analysis completed during project, including analysis not reflected in recommendations

Not all materials validated by a second party



This document is divided into four themes



Supply of Dogs

How many dogs are in Dallas?

- Registered, Loose?

Do dogs pose a public safety risk?

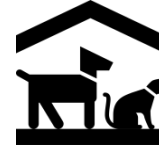
What services are available to prevent population growth



Enforcement & Reporting

How effectively does Dallas institute and enforce animal ordinances?

How effectively does DAS respond to animal-related requests / complaints?

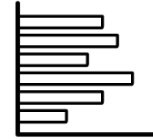


DAS Operations

How effectively does DAS collect dogs?

How efficiently and quickly does DAS operate its shelter?

How effectively does DAS rehome dogs?



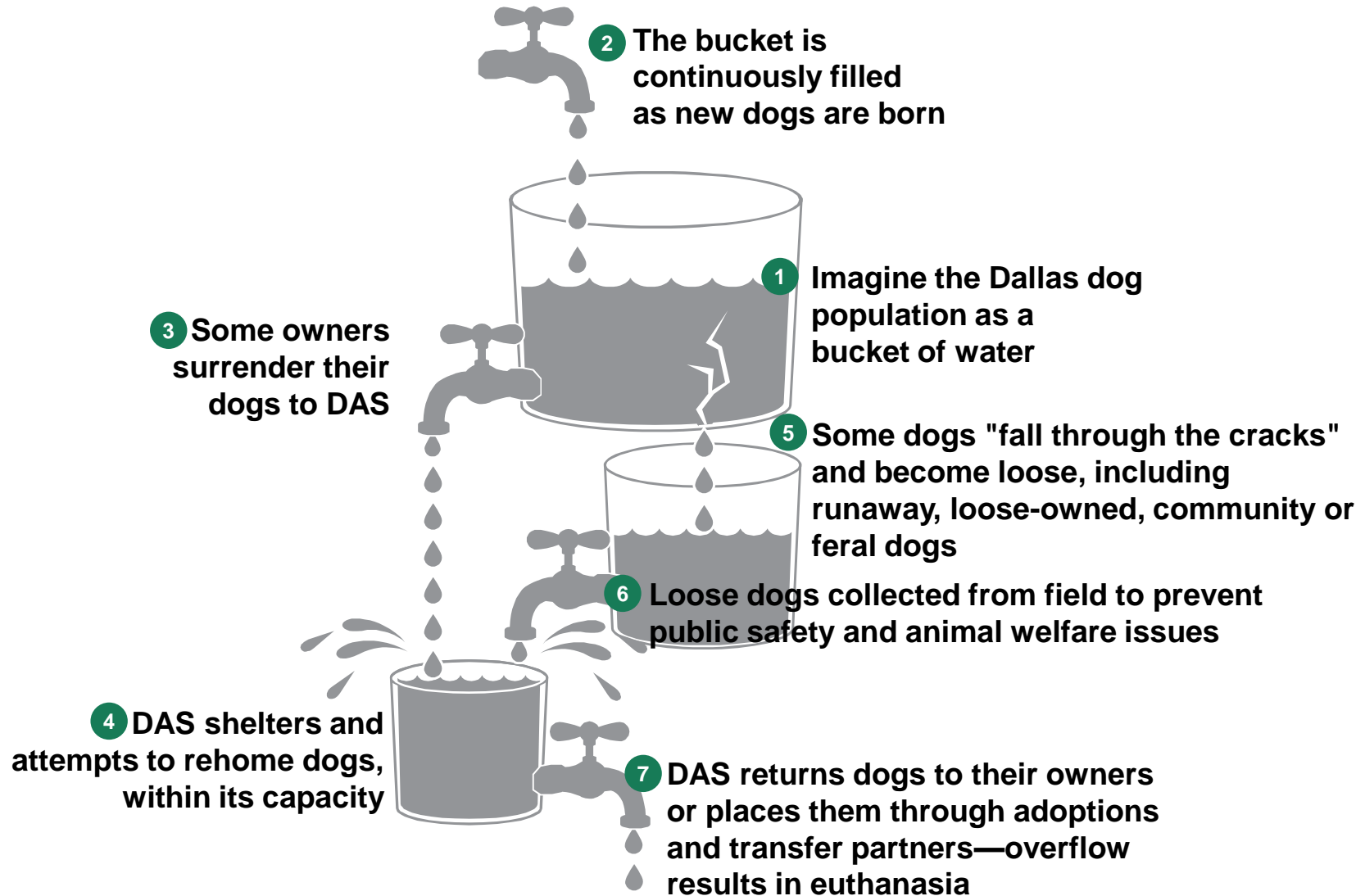
Benchmarks

How do other US cities structure their Animal control agencies?

How have comparable cities overcome similar dog issues?

What best practices can be applied in Dallas?

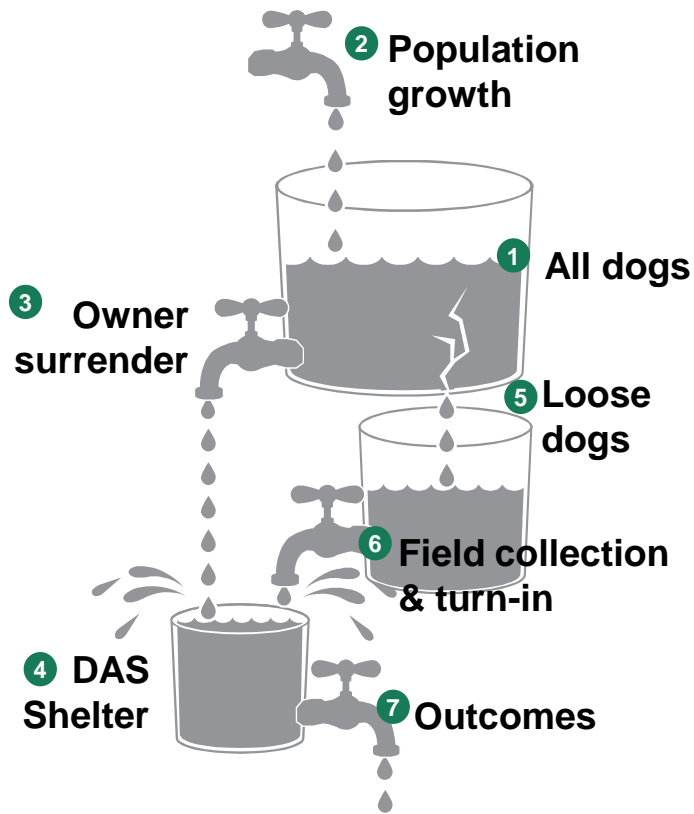
Dallas dogs can be conceptualized as buckets and flows



Dog issue difficult to fix because it requires coordinating efforts

Actions that impact only a single point often create unintended consequences

Isolated single actions compromise public safety or animal welfare, or lack sustainability



Single Action	Direct or Unintended Consequence
6 Pick up all the loose dogs	2 People replace pets given large supply of new dogs
5 Encourage community to keep loose dogs off the street	7 Euthanasia spikes from increased intake
4 Build a bigger shelter	2 If breeding continues, dog population overwhelms the most responsible of owners
2 S/N all the dogs	3+6 Intake fills shelter, returns to "business as usual"
	5 Owned pets still roam the streets

① Supply of Dogs



Three questions served as basis for approach to understand population of dogs in Dallas

Key questions

Our approach

A How many dogs are in Dallas?

- Survey of Dallas citizens
- Census of loose dogs in Dallas
- Industry estimates (AVMA formulas)

B Do loose dogs pose a public safety risk?

- Analysis of bites and other incidents from USPS, 311, 911 records
- Survey of Dallas citizens

C What services are available to prevent population growth?

- Consolidated historical activity from different spay and neuter organizations
- Modeled expected population growth



Total dog population, spay and neuter level, and growth potential can be modeled from basic inputs

	Metric	Estimate considers:
①	Beginning of period dog population	Population, Prior intake, AVMA, community stats
+ ②	New dogs born	Observed S/N levels, reproduction variables
- ③	Dogs removed (OTC, Field)	Historical DAS OTC, Field collection from area
+ ④	Dogs placed (Adoptions, RTO)	Historical DAS placement into area
+ ⑤	Dogs placed (Transfers, Other)	Allocation of historical DAS transfers into area
- ⑥	Intact dogs "removed" for S/N	Historical or planned S/N efforts in area
+ ⑦	Intact dogs "returned" following S/N	Historical or planned S/N efforts in area
- ⑧	Dog Death in 2015	Assumes 10 year average dog life
	End of period dog population	

Net neutral

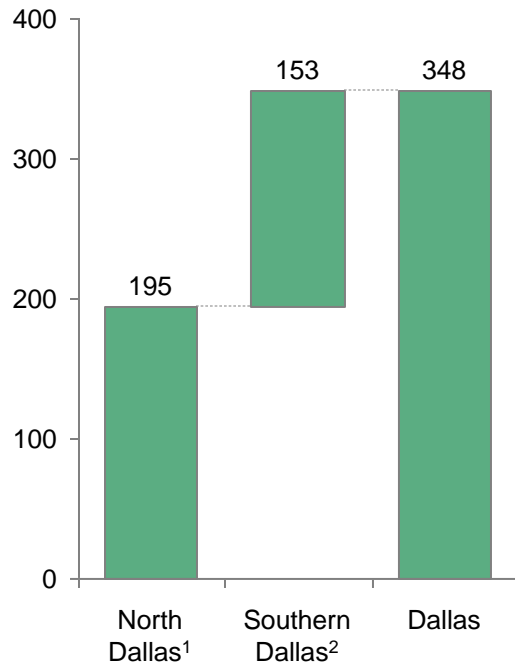
Sizing dog population needed to design effective solutions



Dallas home to ~350k dogs, with low adoption of spay and neuter in southern Dallas resulting in high population growth

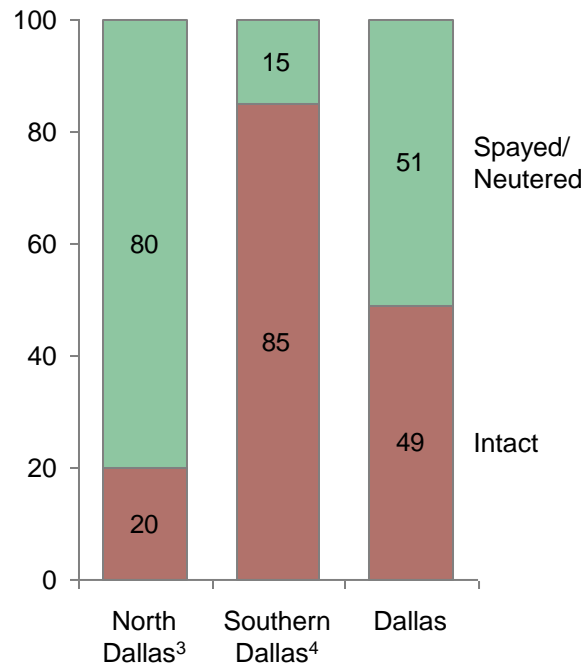
Dallas home to ~350k dogs¹

Total dog population (k)



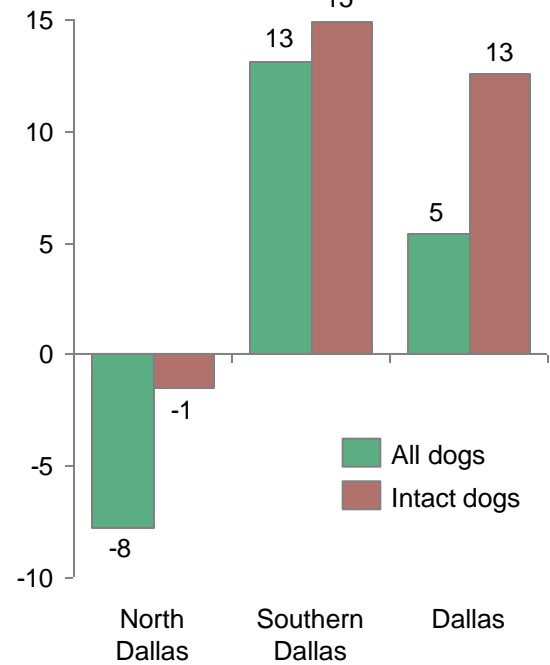
Spay and neuter (S/N) levels vary between North & southern Dallas

% of dog population



Southern Dallas dog population in position to grow quickly⁵

% Est. growth rate potential



1. Dog population is a function of households and dogs per household. There are 333,700 households in North Dallas and 0.584 dogs per household based on AVMA; 2. There are 173,598 households in southern Dallas and 0.883 dogs per household. Dogs per household is average of American Veterinary Medical Association (0.583 dogs/HH) and Pets for Life (1.182 dogs/HH); 3. Assumes 80% sterilized in North Dallas based on local expert interviews; 4. Based on 2015 DAS shelter and field intake – and inline with local expert interviews; 5. Growth rates based on starting population, birth rate, and death rate. Birth rate assumes 1.16 litters a year, 7 puppies a litter, 75% birth survival rate for an average of 6.09 puppies a year per intact female. Sex ratio assumed to be 50/50. A 10 year life expectancy, implies 10% of dogs die in a given year; Note: I-30 used to separate North from southern Dallas. North Dallas includes districts 2,6,9,10,11,12,13,14. Southern Dallas includes districts 1,3,4,5,7,8 ; Source: DAS Chameleon database, Experian Current Year Estimates (Q2 2015) for population data, AVMA, ASPCA, PFL, Birth and Death Rate Estimates of Cats and Dogs 2004, ASPCA, Canine Perinatal Mortality Study 2012, BCG analysis



Population growth slowed by DAS and community efforts, but will only "pay off interest, not principal"

Population growth contained in two ways

A DAS collection & placement

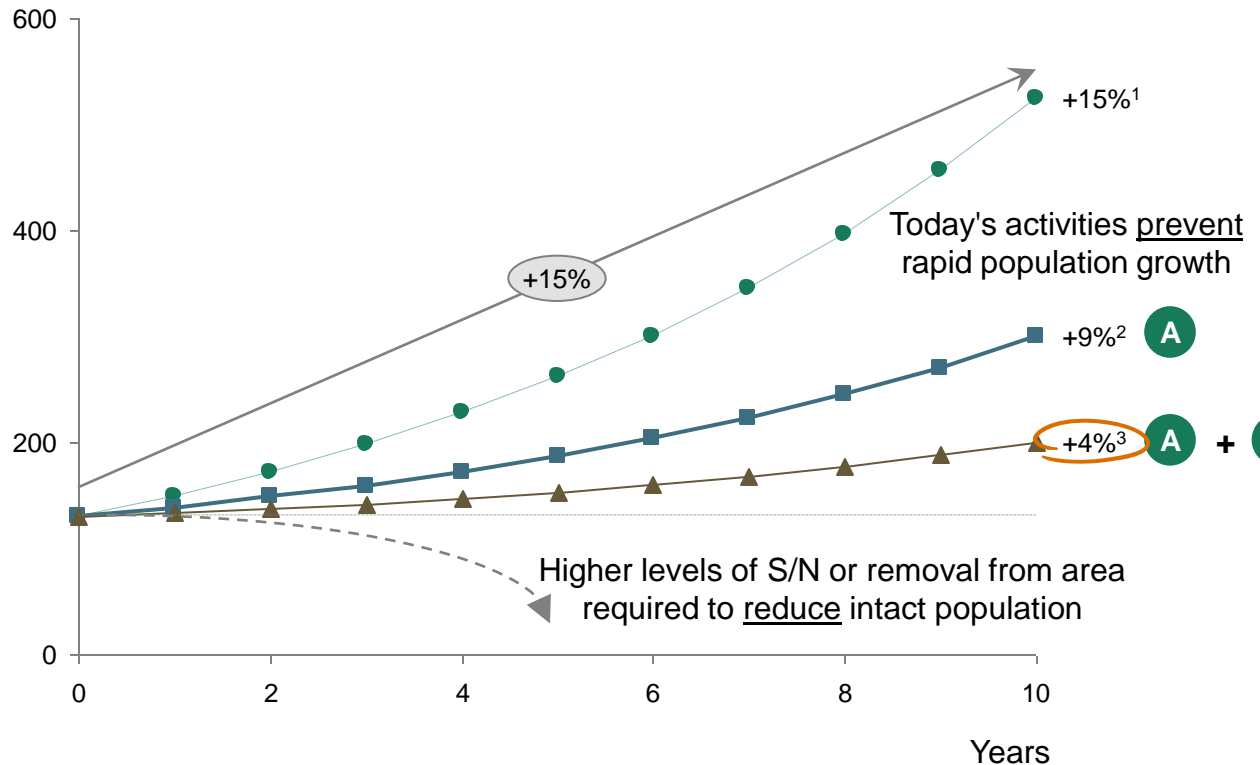
- DAS removes dogs from area through Field and OTC collects
- DAS places some dogs back into community that have been S/N

B Low-cost S/N surgeries

- DAS and community organizations offer low-cost S/N surgeries that serve dog-owners in the community

Today, efforts have contained growth in southern Dallas, but not reduced intact population

Intact Dogs in southern Dallas (k)

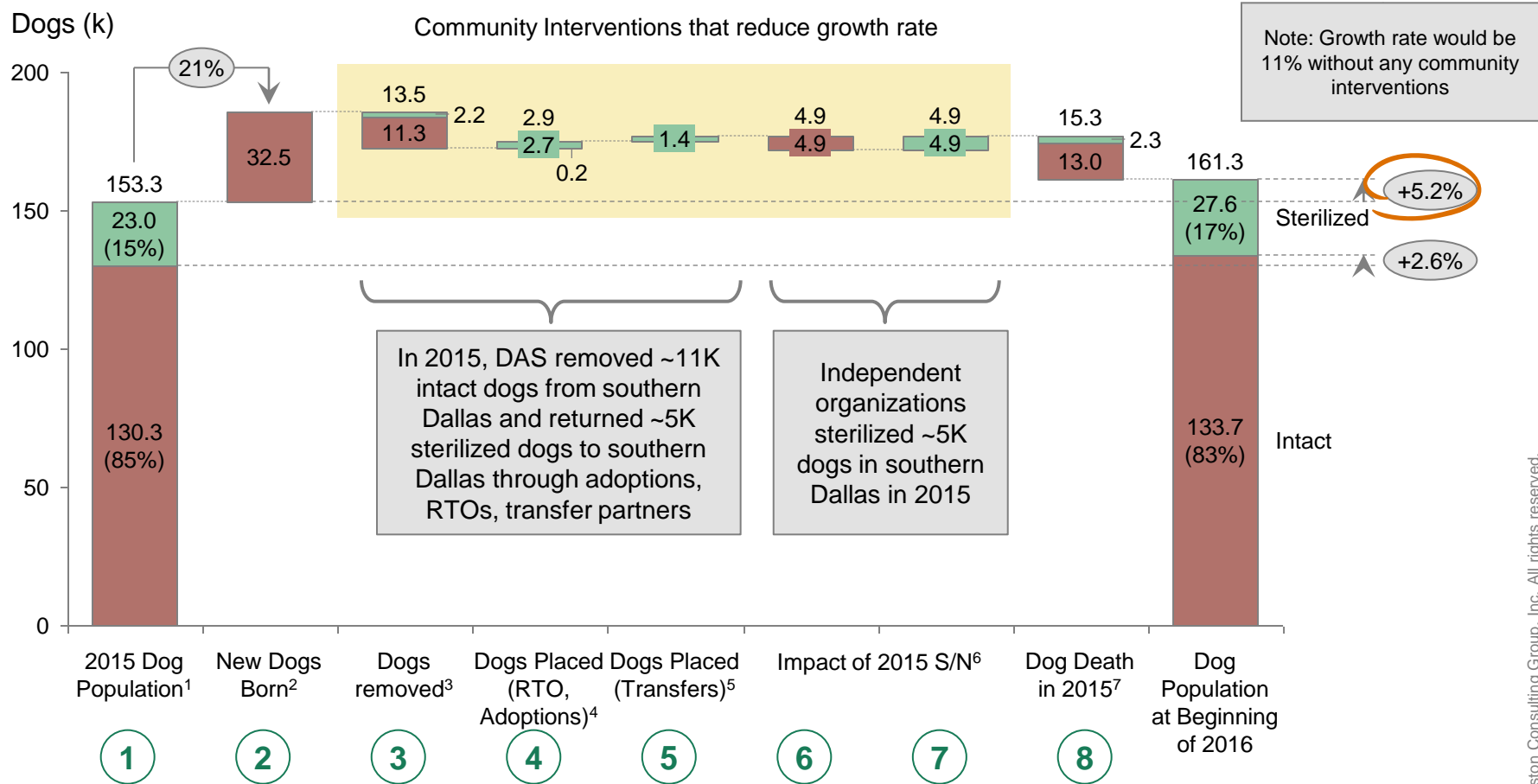


1. Assumes no spay and neuter, adoptions, RTO, or transfers; 2. Assumes no spay and neuter, however, number of adoptions, RTO, and transfers into southern Dallas constant to 2015; 3. Surgeries completed by BFBD, SNN, SPCA, DAS (through BFBD), DCAP, PFL specific to southern Dallas. Assumes levels of S/N are constant to 2015. 4% does not align to next slide, due to difference in 10 year CAGR and one year growth rate. Faster growth seen in later years.; Note: Assumes starting intact population of 130,294 dogs in southern Dallas, 6% roaming, 50/50 sex ratio, 1.16 litters a year, 7 puppies a litter, 75% birth survival rate, 10 year life expectancy, 2.8% of owned dogs breeding; Source: AVMA, ASPCA, American Kennel Club, Pets for Life Canine Perinatal Mortality Study 2012, Birth and Death Rate Estimates of Cats and Dogs 2004, PetMD, Development of a Model for Estimating the Size and Dynamics of Pet Dog Population 1994, BFBD, SNN, SPCA, DAS Chameleon database, DCAP, PFL, BCG analysis



Across southern Dallas, ~150k dogs expected to grow at ~5%

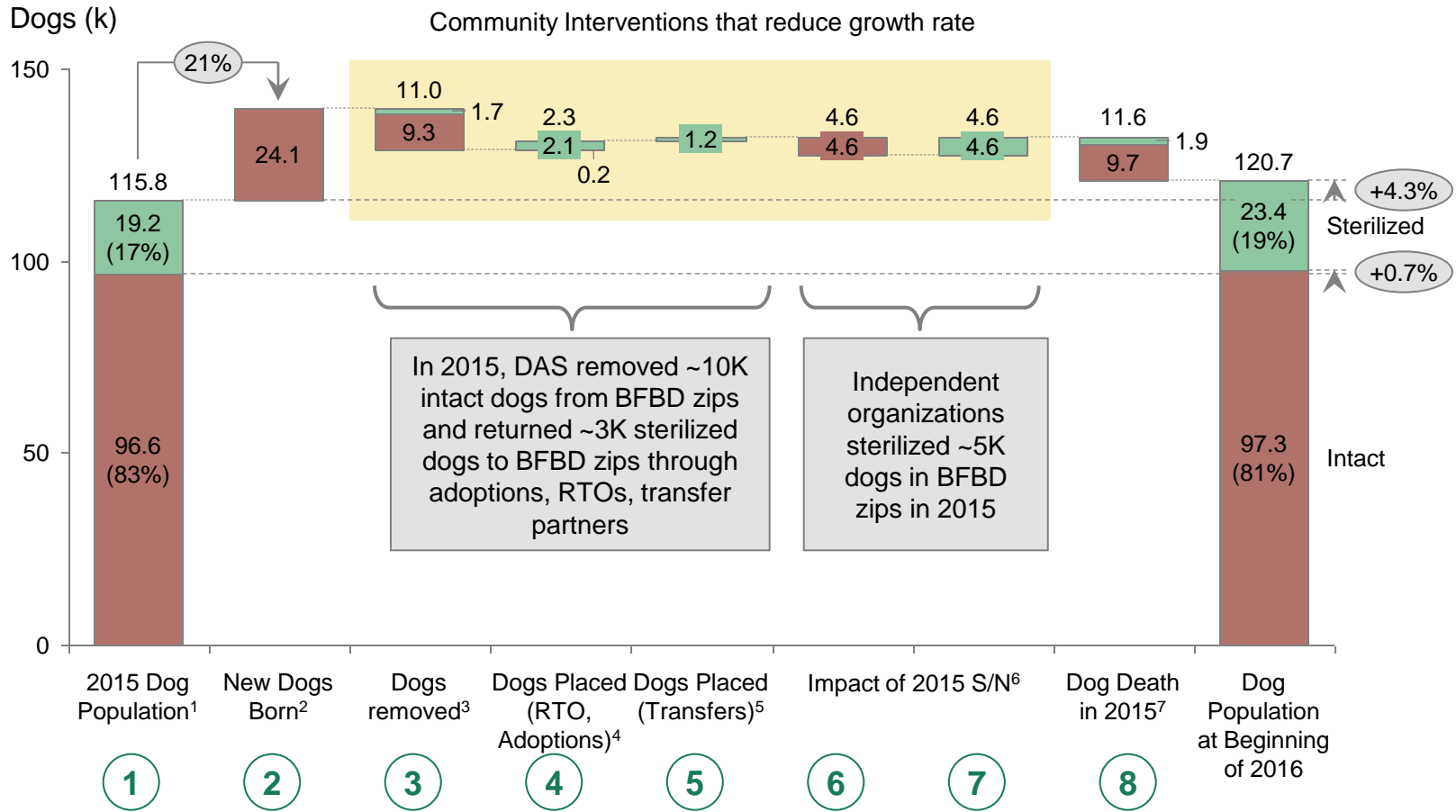
DAS & community interventions reduce the possible growth rate through S/N and removals



1. There are 173,598 households in southern Dallas and 0.883 dogs per household. Intact % is based on DAS intake. Dogs per household is average of AVMA (0.583 dogs/HH) and Pets for Life (1.182 dogs/HH) ownership rates; 2. Birth rate assumes 1.16 litters a year, 7 puppies a litter, 75% birth survival rate for an average of 6.09 puppies a year per intact female. Sex ratio assumed to be 50/50; 3. 2015 DAS shelter and field intake; 4. 2015 RTO and adoptions from DAS; 5. Allocates total transfer volume to southern Dallas based on 50% of RTO and adoption from DAS. Assumes all transfers are sterilized; 6. Surgeries completed by SNN, SPCA, DAS (through BFBD), DCAP, PFL specific to southern Dallas. Some surgeries completed through BFBD; 7. A 10 year life expectancy, implies 10% of dogs die in a given year; Note: 2.6% does not align to previous slide, due to difference in 10 year CAGR and one year growth rate. This is based on US census block group level data; Source: Experian Current Year Estimates (Q2 2015) for population data, AVMA, Birth and Death Rate Estimates of Cats and Dogs 2004 for birth rate, ASPCA, Canine Perinatal Mortality Study 2012, DAS Chameleon database, BFBD, SNN, SPCA, DAS, DCAP, PFL, BCG analysis



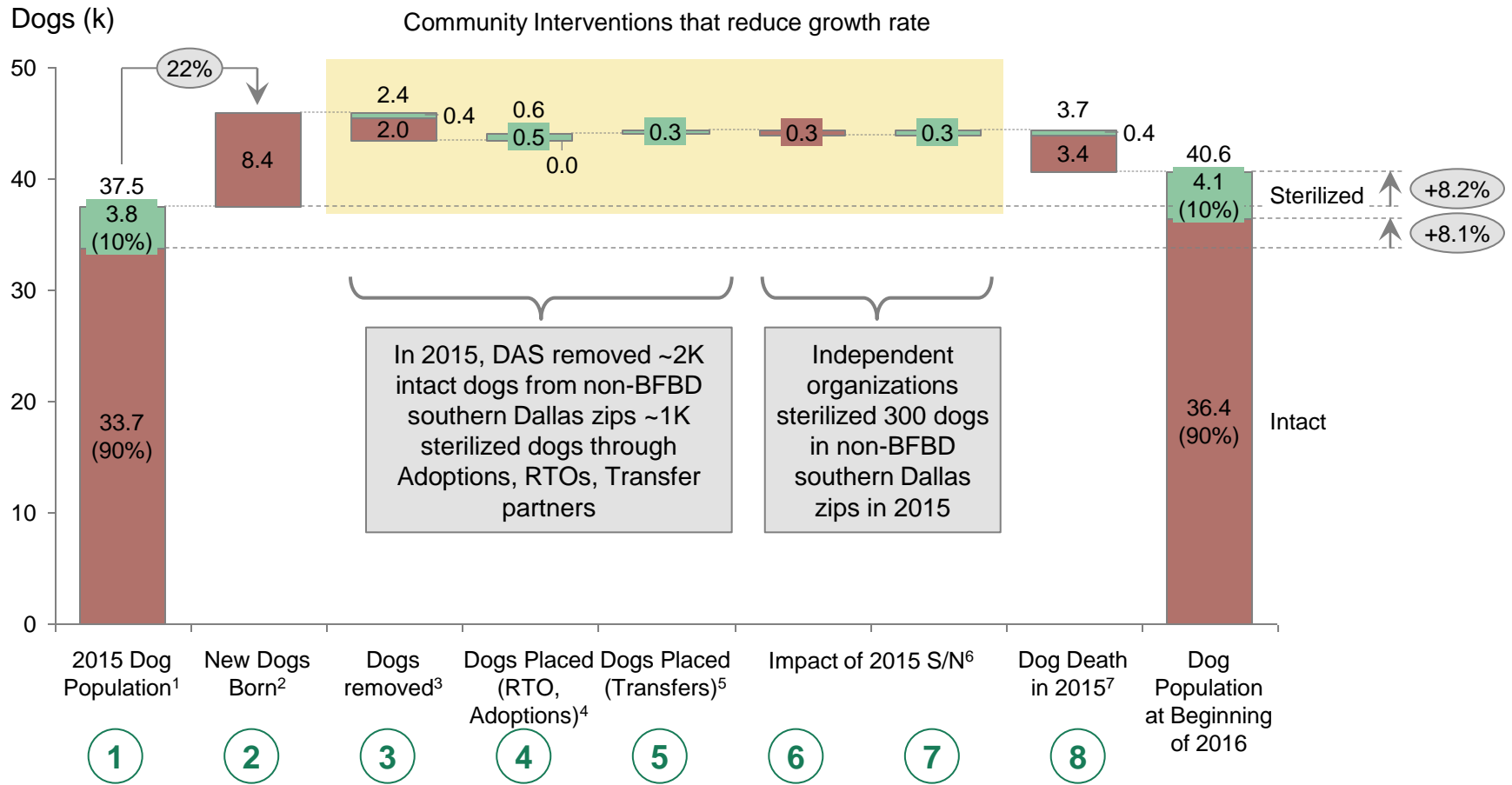
In areas targeted for Big Fix low-cost S/N campaigns, growth slightly slower, but intact population still growing at 1%



1. There are 131,146 households and 0.883 dogs per household. Intact % is based on DAS intake. Dogs per household is average of AVMA (0.583 dogs/HH) and Pets for Life (1.182 dogs/HH) ownership rates; 2. Birth rate assumes 1.16 litters a year, 7 puppies a litter, 75% birth survival rate for an average of 6.09 puppies a year per intact female. Sex ratio assumed to be 50/50; 3. 2015 DAS shelter and field intake; 4. 2015 RTO and adoptions from DAS; 5. Allocates total transfer volume to BFBD zips based on 50% of RTO and adoption from DAS. Assumes all transfers are sterilized 6. Surgeries completed by SNN, SPCA, DAS (through BFBD), DCAP, PFL specific to BFBD zip codes. Some surgeries completed through BFBD; 7. A 10 year life expectancy, implies 10% of dogs die in a given year; Note: This is based on zip code level data; Source: Experian Current Year Estimates (Q2 2015) for population data, AVMA, Birth and Death Rate Estimates of Cats and Dogs 2004 for birth rate, ASPCA, Canine Perinatal Mortality Study 2012, DAS Chameleon database, BFBD, SNN, SPCA, DAS, DCAP, PFL, BCG analysis



Areas without independent spay and neuter efforts (Big Fix) seeing much higher rates of growth—average of 8% annually

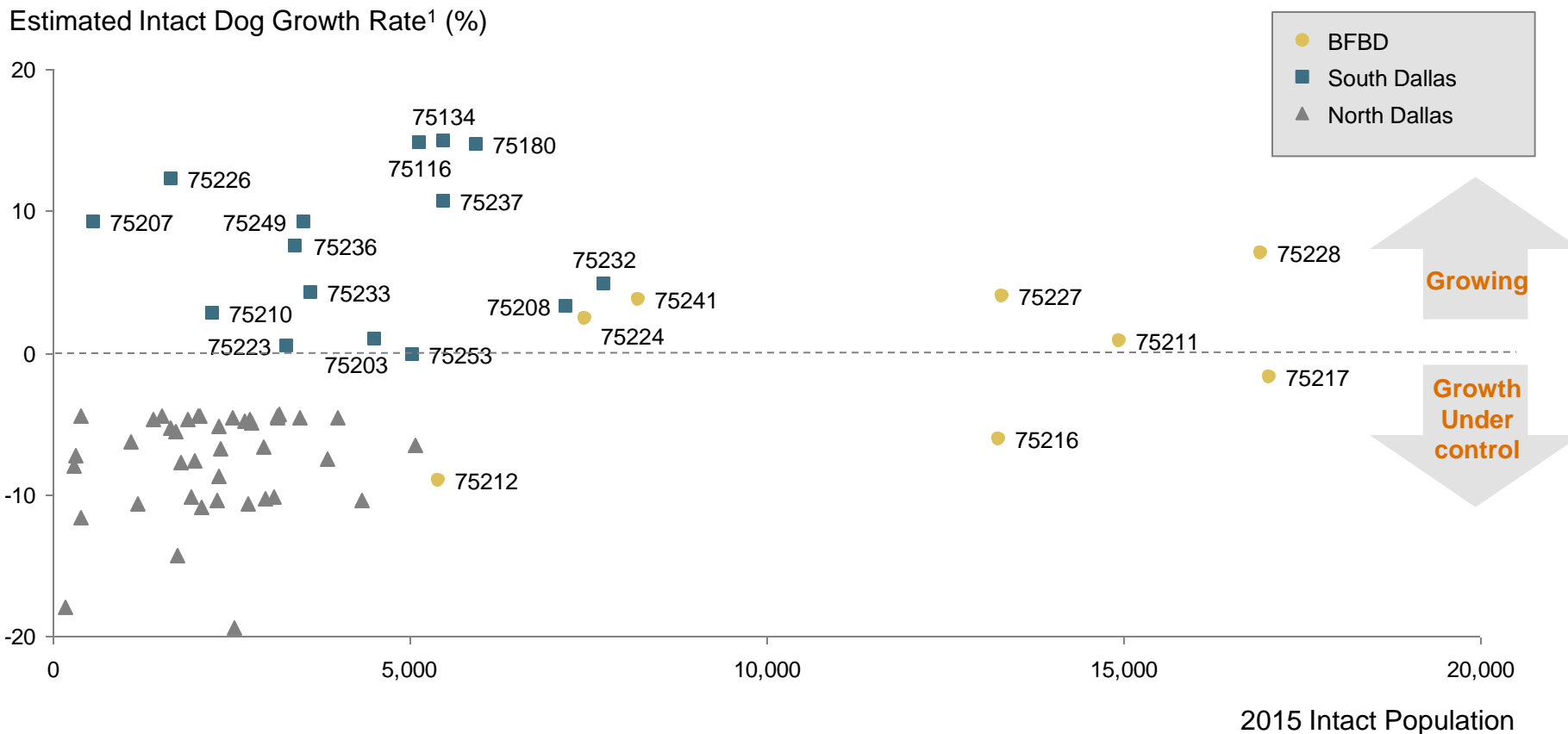


1. There are 42,452 households and 0.883 dogs per household. Intact % is based on DAS intake. Dogs per household is average of AVMA (0.583 dogs/HH) and Pets for Life (1.182 dogs/HH) ownership rates; 2. Birth rate assumes 1.16 litters a year, 7 puppies a litter, 75% birth survival rate for an average of 6.09 puppies a year per intact female. Sex ratio assumed to be 50/50. 3. 2015 DAS shelter and field intake; 4. 2015 RTO and adoptions from DAS; 5. Allocates total transfer volume to southern Dallas based on 50% of RTO and adoption from DAS. Assumes all transfers are sterilized; 6. Surgeries completed by SNN, SPCA, DAS (through BFBD), DCAP, PFL specific to southern Dallas. Some surgeries completed through BFBD; 7. A 10 year life expectancy, implies 10% of dogs die in a given year; Note: This is the difference between southern Dallas numbers and Big Fix for Big D numbers; Source: Experian Current Year Estimates (Q2 2015) for population data, AVMA, Birth and Death Rate Estimates of Cats and Dogs 2004 for birth rate, ASPCA, Canine Perinatal Mortality Study 2012, DAS Chameleon database, BFBD, SNN, SPCA, DAS, DCAP, PFL, BCG analysis



Population growth in some areas under control due in part to Big Fix for Big D...

Estimated Intact Dog Population & Expected Growth of Dallas Zip Codes



1. Dog population based on number of households per US census per zip code and pet ownership rates. North Dallas uses AVMA estimate of 0.583 dogs/HH. Southern Dallas uses average of AVMA estimate (0.583 dogs/HH) and Pets for Life (1.182 dogs/HH). Intact population in North assumed to be 20% of total dog population. Intact population in southern Dallas estimated from S/N status of DAS intake within zip. If intake in a given zip code was < 50 dogs, intact population assumed to be 85% of total dog population. Rate of reproduction then assumes, 6% roaming, 50/50 sex ratio, 1.16 litters a year, 7 puppies a litter, 75% birth survival rate, 10 year life expectancy, 2.8% of owned dogs breeding; Note: 9 North Dallas zip codes have intact growth rate less than -20% and are not shown on graph; Source: Experian Current Year Estimates (Q2 2015), AVMA, Birth and Death Rate Estimates of Cats and Dogs 2004, ASPCA, Canine Perinatal Mortality Study 2012, DAS Chameleon database, BFBD, SNN, SPCA, DAS, DCAP, PFL, BCG analysis



Summary: Dallas zip code level detail

Zips	2015 Intact Dogs	2015 Sterilized Dogs	2015 Estimated Dogs	2015 Growth	2015 DAS Intake Intact	2015 DAS Intake Sterilized	Intact Intake (%)	2015 DAS Outcome Intact	2015 DAS Outcome Sterilized	Transfers	2015 Death Total	S/N	2016 Intact Dogs	Change Intact (%)	2016 Sterilized Dogs	2016 Total Dogs	Change Total (%)	2016 Growth	2016 Death Total	2017 Total
Total BFBD	96,603	19,199	115,802	24,091	9,299	1,738	84.3	164	2,139	1,152	11,580	4,582	97,316	0.7	23,414	120,730	4.3	24,269	14,500	130,499
Total Other South	64,878	13,698	78,576	16,180	3,697	804	82.1	81	1,035	558	7,858	1,344	69,610	2.3	14,461	84,071	7.0	17,359	10,143	91,288
Total South	130,294	22,933	153,287	32,493	11,312	2,154	84.0	206	2,663	1,435	15,329	4,926	133,726	2.6	27,564	161,289	5.2	33,349	16,129	169,347
Total North	98,845	395,379	494,224	5,574	5,008	1,655	75.2	2,319	3,347	2,833	49,422	2,616	89,229	-9.7	362,982	452,211	-8.5	5,039	45,725	411,526
Total Dallas	229,138	418,372	647,511	38,067	16,320	3,809	81.1	2,525	6,010	4,268	64,751	7,542	222,955	-2.7	390,546	613,500	-5.3	38,388	61,854	580,873

Note: I-30 used to separate North from southern Dallas. North Dallas includes districts 2,6,9,10,11,12,13,14. southern Dallas includes districts 1,3,4,5,7,8. These numbers do not tie back to previous slides due to discrepancies in zip codes and census block groups. Some zip codes span multiple city lines outside of Dallas. These detail summary slides account for all zip codes that are in the city of Dallas even if they cross city lines. This analysis is based on zip code level detail; Source: Experian Current Year Estimates (Q2 2015), AVMA, Birth and Death Rate Estimates of Cats and Dogs 2004, ASPCA, Canine Perinatal Mortality Study 2012, DAS Chameleon database, Development of a Model for Estimating the Size and Dynamics of Pet Dog Population 1994, BFBD, SNN, SPCA, DAS, DCAP, PFL, BCG analysis



Backup: BFBD and southern Dallas zip code level detail

Big Fix for Big D Zip Code

Zips	2015 Intact Dogs	2015 Sterilized Dogs	2015 Estimated Dogs	2015 Growth	2015 DAS Intake Intact	2015 DAS Intake Sterilized	Intact Intake (%)	2015 DAS Outcome Intact	2015 DAS Outcome Sterilized	Transfers	2015 Death Total	S/N	2016 Intact Dogs	Change Intact (%)	2016 Sterilized Dogs	2016 Total Dogs	Change Total (%)	2016 Growth	2016 Death Total	2017 Total
75211	14,954	3,778	18,732	3,729.36	1,464	370	79.8	23	535	279	1,873	673	15,075	0.8	4,517	19,592	4.6	3,759	2,335	21,016
75212	5,412	1,044	6,456	1,349.53	998	192	83.9	18	250	134	646	317	4,923	-9.0	1,448	6,371	-1.3	1,228	760	6,839
75216	13,250	2,149	15,400	3,304.34	1,715	278	86.1	22	284	153	1,540	1,099	12,438	-6.1	3,192	15,630	1.5	3,102	1,873	16,859
75217	17,050	2,389	19,439	4,252.02	2,019	283	87.7	30	278	154	1,944	860	16,748	-1.8	3,159	19,908	2.4	4,177	2,408	21,676
75224	7,472	1,619	9,090	1,863.34	677	147	82.2	21	177	99	909	280	7,652	2.4	1,866	9,518	4.7	1,908	1,143	10,283
75227	13,320	2,197	15,516	3,321.65	1,003	165	85.9	21	222	122	1,552	476	13,851	4.0	2,631	16,482	6.2	3,454	1,994	17,942
75228	16,934	4,834	21,768	4,222.95	687	196	77.8	21	261	141	2,177	683	18,115	7.0	5,240	23,354	7.3	4,517	2,787	25,085
75241	8,211	1,190	9,401	2,047.78	737	107	87.3	8	132	70	940	194	8,515	3.7	1,360	9,875	5.0	2,123	1,200	10,799
Total BFBD	96,603	19,199	115,802	24,091	9,299	1,738	84.3	164	2,139	1,152	11,580	4,582	97,316	0.7	23,414	120,730	4.3	24,269	14,500	130,499

Zips	2015 Intact Dogs	2015 Sterilized Dogs	2015 Estimated Dogs	2015 Growth	2015 DAS Intake Intact	2015 DAS Intake Sterilized	Intact Intake (%)	2015 DAS Outcome Intact	2015 DAS Outcome Sterilized	Transfers	2015 Death Total	S/N	2016 Intact Dogs	Change Intact (%)	2016 Sterilized Dogs	2016 Total Dogs	Change Total (%)	2016 Growth	2016 Death Total	2017 Total
75116	5,135	906	6,041	1,280.64	6	13	31.6	0	60	30	604	0	5,897	14.8	893	6,789	12.4	1,470	826	7,434
75134	5,494	970	6,464	1,370.11	5	7	41.7	4	26	15	646	0	6,314	14.9	907	7,221	11.7	1,575	880	7,916
75180	5,932	1,047	6,978	1,479.23	14	5	73.7	1	17	9	698	2	6,803	14.7	965	7,768	11.3	1,696	946	8,518
75203	4,528	1,028	5,556	1,129.16	460	104	81.6	7	145	76	556	183	4,568	0.9	1,225	5,793	4.3	1,139	693	6,239
75207	591	104	695	147.31	27	5	84.4	1	5	3	69	8	645	9.2	105	750	7.9	161	91	820
75208	7,201	1,974	9,175	1,795.76	582	160	78.4	16	215	116	918	277	7,433	3.2	2,225	9,658	5.3	1,854	1,151	10,361
75210	2,256	399	2,654	562.50	232	41	85.0	4	34	19	265	47	2,317	2.7	418	2,735	3.0	578	331	2,981
75223	3,274	680	3,954	816.55	339	70	82.9	7	83	45	395	142	3,289	0.5	811	4,101	3.7	820	492	4,429
75226	1,664	294	1,958	414.96	35	11	76.1	1	13	7	196	11	1,867	12.2	285	2,152	9.9	466	262	2,356
75232	7,722	1,304	9,025	1,925.61	633	107	85.5	12	121	67	903	163	8,091	4.8	1,417	9,508	5.4	2,018	1,153	10,374
75233	3,622	830	4,451	903.15	323	74	81.4	8	77	43	445	76	3,772	4.1	868	4,640	4.2	941	558	5,023
75236	3,413	826	4,239	851.18	184	45	80.3	6	71	39	424	75	3,670	7.5	883	4,553	7.4	915	547	4,922
75237	5,480	1,651	7,131	1,366.71	195	59	76.8	1	76	39	713	45	6,060	10.6	1,586	7,647	7.2	1,511	916	8,242
75249	3,520	1,105	4,625	877.77	142	45	75.9	6	58	32	463	66	3,844	9.2	1,106	4,950	7.0	959	591	5,317
75253	5,048	581	5,629	1,258.88	520	60	89.7	7	34	21	563	249	5,040	-0.2	767	5,807	3.2	1,257	706	6,357
Total Other South	64,878	13,698	78,576	16,180	3,697	804	82.1	81	1,035	558	7,858	1,344	69,610	2.3	14,461	84,071	7.0	17,359	10,143	91,288

Note: I-30 used to separate North from southern Dallas. North Dallas includes districts 2,6,9,10,11,12,13,14. southern Dallas includes districts 1,3,4,5,7,8. These numbers do not tie back to previous slides due to discrepancies in zip codes and census block groups as these do not match. Some zip codes span multiple city lines outside of Dallas and are not included in block group analysis. These detail summary slides account for all zip codes that are in the city of Dallas even if they cross city lines; Source: Experian Current Year Estimates (Q2 2015), AVMA, Birth and Death Rate Estimates of Cats and Dogs 2004, ASPCA, Canine Perinatal Mortality Study 2012, DAS Chameleon database, Development of a Model for Estimating the Size and Dynamics of Pet Dog Population 1994, BFBD, SNN, SPCA, DAS, DCAP, PFL, BCG analysis



Backup: North Dallas zip code level detail

Zips	2015 Intact Dogs	2015 Sterilized Dogs	2015 Estimated Dogs	2015 Growth	2015 DAS Intake Intact	2015 DAS Intake Sterilized	Intact Intake (%)	2015 DAS Outcome Intact	2015 DAS Outcome Sterilized	Transfers	2015 Death Total	S/N	2016 Intact Dogs	Change Intact (%)	2016 Sterilized Dogs	2016 Total Dogs	Change Total (%)	2016 Growth	2016 Death Total	2017 Total
75006	3,144	12,576	15,720	177	6	9	40.0	3	11	7	1572	0	3,004	-4.5	11,327	14,331	-8.8	174	1,451	13,055
75007	3,454	13,815	17,269	195	6	9	40.0	2	11	7	1727	1	3,298	-4.5	12,443	15,741	-8.8	191	1,593	14,339
75019	2,780	11,118	13,898	157	29	2	93.5	14	13	14	1390	0	2,643	-4.9	10,030	12,673	-8.8	153	1,283	11,544
75039	1,392	5,566	6,958	78	5	0	100.0	0	4	2	696	0	1,326	-4.7	5,016	6,342	-8.9	77	642	5,777
75043	3,974	15,895	19,868	224	11	11	50.0	1	16	9	1987	0	3,791	-4.6	14,319	18,110	-8.9	220	1,833	16,497
75060	2,680	10,718	13,398	151	15	7	68.2	4	15	10	1340	0	2,551	-4.8	9,664	12,215	-8.8	148	1,236	11,127
75062	2,760	11,039	13,799	156	18	11	62.1	10	15	13	1380	1	2,631	-4.7	9,953	12,584	-8.8	153	1,274	11,463
75063	3,159	12,635	15,793	178	2	9	18.2	2	8	5	1579	0	3,021	-4.4	11,375	14,395	-8.9	175	1,457	13,114
75081	2,516	10,065	12,581	142	8	8	50.0	3	11	7	1258	0	2,401	-4.6	9,068	11,469	-8.8	139	1,161	10,448
75087	2,037	8,147	10,184	115	4	1	80.0	1	2	2	1018	0	1,945	-4.5	7,335	9,280	-8.9	113	939	8,454
75088	1,530	6,119	7,649	86	2	8	20.0	2	7	5	765	0	1,463	-4.4	5,510	6,973	-8.8	85	706	6,352
75089	1,889	7,555	9,444	107	11	4	73.3	6	6	6	944	1	1,801	-4.7	6,809	8,610	-8.8	104	871	7,843
75098	3,132	12,527	15,659	77	9	6	60.0	4	9	7	1566	0	2,990	-4.5	11,284	14,274	-8.8	174	1,445	13,003
75126	2,061	8,242	10,303	116	5	1	83.3	3	2	3	1030	0	1,969	-4.4	7,421	9,390	-8.9	114	950	8,554
75182	383	1,532	1,915	22	4	0	100.0	3	0	2	192	0	366	-4.5	1,380	1,746	-8.8	21	177	1,591
75201	1,029	4,117	5,146	58	423	161	72.4	228	289	259	515	31	759	-4.2	4,123	4,882	-5.1	38	492	4,428
75202	322	1,286	1,608	18	9	9	50.0	3	13	8	161	3	298	-7.3	1,172	1,471	-8.5	17	149	1,339
75204	3,085	12,339	15,423	174	113	43	72.4	48	86	67	1542	115	2,770	-10.2	11,329	14,100	-8.6	156	1,426	12,830
75205	1,707	6,828	8,535	96	14	15	48.3	6	20	13	854	12	1,612	-5.5	6,175	7,787	-8.8	93	788	7,093
75206	3,850	15,399	19,249	217	87	53	62.1	44	75	60	1925	76	3,563	-7.4	14,017	17,580	-8.7	204	1,778	16,005
75207	139	556	695	8	27	5	84.4	11	14	13	69	8	109	-21.6	530	639	-8.0	6	64	580
75209	1,185	4,741	5,926	67	92	29	76.0	54	48	51	593	37	1,059	-10.7	4,373	5,432	-8.3	59	549	4,942
75212	1,291	5,164	6,456	73	998	192	83.9	494	509	502	646	317	414	-67.9	5,783	6,197	-4.0	2	620	5,579
75214	2,971	11,884	14,856	168	149	68	68.7	74	111	93	1486	101	2,665	-10.3	10,932	13,598	-8.5	150	1,375	12,373
75218	1,734	6,935	8,669	98	133	46	74.3	61	98	80	867	100	1,487	-14.3	6,474	7,960	-8.2	82	804	7,238
75219	2,312	9,247	11,559	130	77	26	74.8	36	49	43	1156	58	2,112	-8.7	8,446	10,558	-8.7	120	1,068	9,610
75220	2,531	10,124	12,655	143	351	87	80.1	155	205	180	1266	183	2,042	-19.3	9,593	11,635	-8.1	108	1,174	10,569
75223	791	3,163	3,954	45	339	79	82.9	156	195	176	395	142	431	-45.5	3,289	3,720	-5.9	16	374	3,363
75225	1,644	6,576	8,220	93	21	8	72.4	13	12	13	822	8	1,556	-5.3	5,943	7,499	-8.8	90	759	6,830
75226	392	1,566	1,958	22	35	11	76.1	18	18	18	196	11	346	-11.6	1,446	1,792	-8.5	19	181	1,630
75228	4,354	17,414	21,768	245	687	196	77.8	303	446	375	2177	683	3,097	-28.9	16,980	20,077	-7.8	151	2,023	18,205
75229	2,089	8,355	10,444	118	147	36	80.3	62	90	76	1044	51	1,862	-10.9	7,700	9,562	-8.4	104	967	8,700
75230	2,339	9,357	11,696	132	60	22	73.2	27	43	35	1170	22	2,182	-6.7	8,499	10,681	-8.7	125	1,081	9,726
75231	2,724	10,898	13,622	154	160	42	79.2	58	113	86	1362	68	2,436	-10.6	10,032	12,468	-8.5	137	1,260	11,344
75234	1,977	7,907	9,883	111	36	12	75.0	15	28	22	988	43	1,826	-7.6	7,197	9,023	-8.7	104	913	8,215
75235	1,235	4,941	6,176	70	204	58	77.9	100	120	110	618	123	954	-22.8	4,742	5,696	-7.8	49	575	5,171
75238	2,286	9,146	11,432	129	86	45	65.6	29	81	55	1143	81	2,049	-10.4	8,404	10,453	-8.6	115	1,057	9,511
75243	4,325	17,302	21,627	244	272	82	76.8	119	189	154	2163	109	3,875	-10.4	15,942	19,816	-8.4	218	2,003	18,031
75244	1,078	4,312	5,390	61	20	26	43.5	11	28	20	539	11	1,011	-6.2	3,913	4,924	-8.6	58	498	4,484
75246	174	697	872	10	11	5	68.8	5	8	7	87	18	143	-17.9	655	798	-8.4	8	81	726
75247	47	189	237	3	41	6	87.2	27	13	20	24	1	30	-36.2	199	229	-3.4	1	23	207
75248	2,942	11,768	14,710	166	41	52	44.1	12	64	38	1471	37	2,748	-6.6	10,678	13,426	-8.7	158	1,358	12,226
75251	296	1,185	1,482	17	4	1	80.0	2	2	2	148	9	273	-7.9	1,079	1,352	-8.8	16	137	1,230
75252	2,308	9,231	11,538	130	20	45	30.8	11	42	27	1154	11	2,187	-5.2	8,342	10,529	-8.7	127	1,066	9,590
75254	1,795	7,181	8,977	101	42	20	67.7	13	39	26	898	32	1,656	-7.8	6,540	8,196	-8.7	95	829	7,461
75287	5,070	20,280	25,350	286	69	66	51.1	22	93	58	2535	63	4,739	-6.5	18,400	23,138	-8.7	272	2,341	21,070
Total North	98,845	395,379	494,224	5,574	5,008	1,655	75.2	2,319	3,347	2,833	49,422	2,616	89,229	-9.7	362,982	452,211	-8.5	5,039	45,725	411,526

Note: These numbers do not tie back to previous slides due to discrepancies in zip codes and census block groups as these do not match. Some zip codes span multiple city lines outside of Dallas and are not included in block group analysis. These detail summary slides account for all zip codes that are in the city of Dallas even if they cross city lines; Source: Experian Current Year Estimates (Q2 2015), AVMA, Birth and Death Rate Estimates of Cats and Dogs 2004, ASPCA, Canine Perinatal Mortality Study 2012, DAS Chameleon database, Development of a Model for Estimating the Size and Dynamics of Pet Dog Population 1994, BFB, SNN, SPCA, DAS, DCA, PFL, BCG analysis



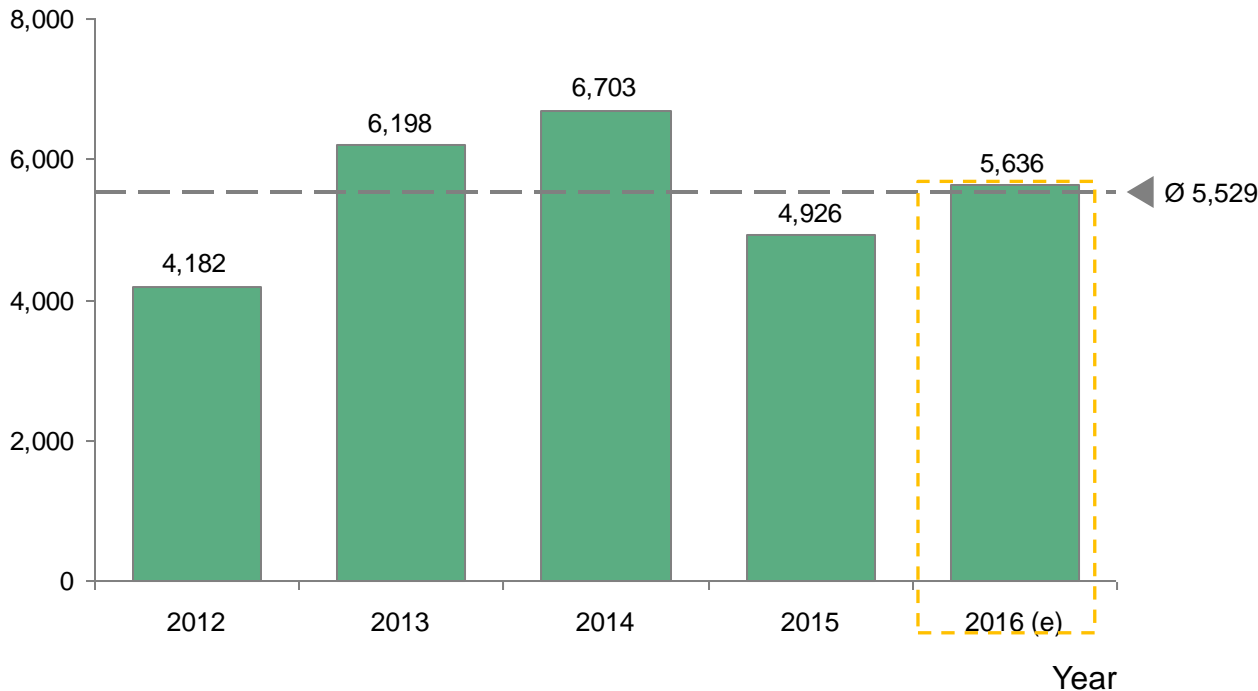
Multiple organizations have performed low-cost spay and neuter surgeries in southern Dallas

Organizations performed majority of spay and neuter surgeries...



...averaging ~6k annually, but declining in recent years

Number of surgeries



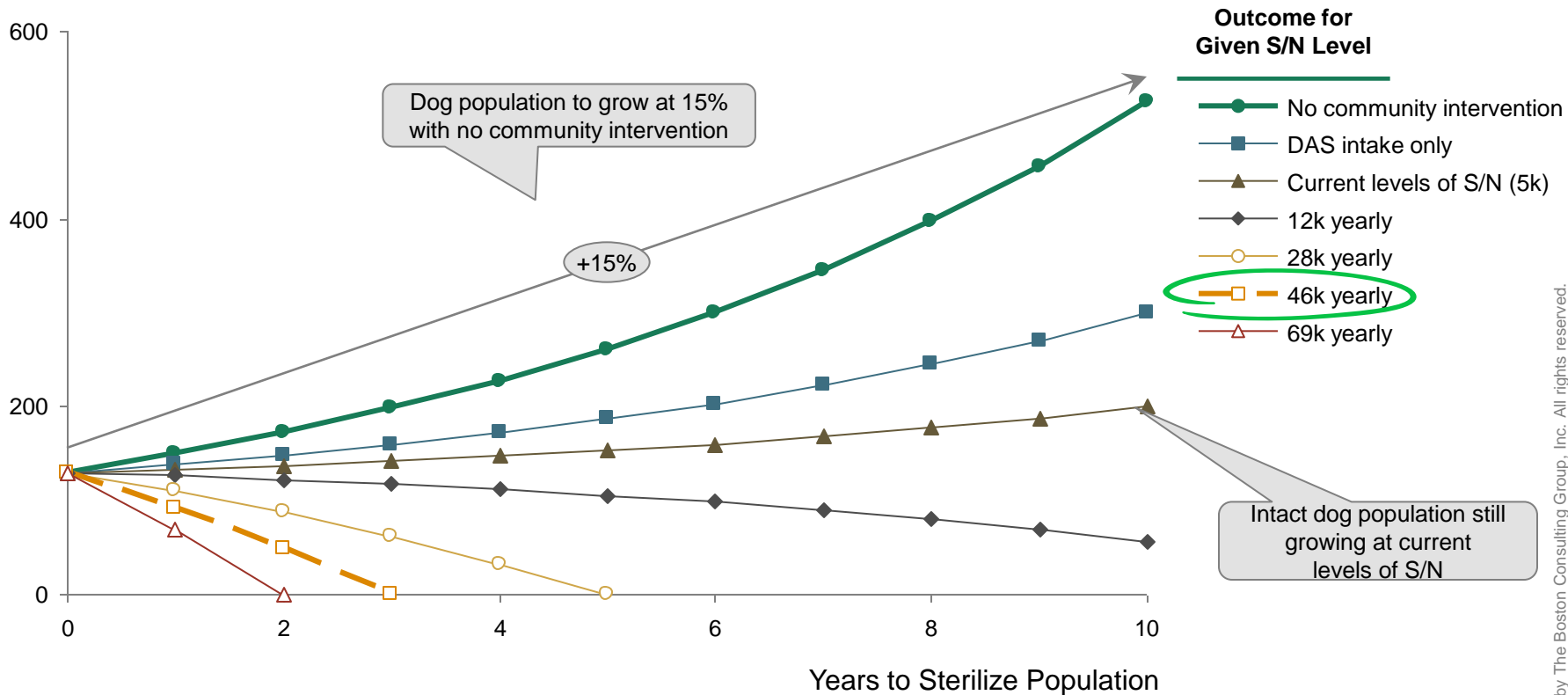
Note: This includes SNN, SPCA, DAS (through BFBD), DCAP, PFL specific to southern Dallas. Some surgeries completed through BFBD. This does not include spay and neuters that were completed as part of DAS operations (~3,500 were completed for adoptions into southern Dallas in 2015). I-30 used to separate North from southern Dallas. North Dallas includes districts 2,6,9,10,11,12,13,14. Southern Dallas includes districts 1,3,4,5,7,8; Source: Chameleon Database, SNN, BFBD, DCAP, BCG analysis



...but fixing problem across southern Dallas requires a surge of ~46-70k low-cost S/N each year over 2-3 years

Years to Sterilize Current Dog Population in Southern Dallas

Estimated Intact Population in southern Dallas¹ (k)



1: Assumes starting intact population based on census population estimate and average of AVMA (0.583 dogs/HH) and Pets for Life (1.182 dogs/HH) ownership rates, 6% roaming, 50/50 sex ratio, 1.16 litters a year, 7 puppies a litter, 75% birth survival rate, 10 year life expectancy, 2.8% of owned dogs breeding; Note: Assumes starting intact population of 130,294 dogs in southern Dallas; Source: Experian Current Year Estimates (Q2 2015) for population data, AVMA, ASPCA, American Kennel Club, Pets for Life Canine Perinatal Mortality Study 2012, Birth and Death Rate Estimates of Cats and Dogs 2004, PetMD, Development of a Model for Estimating the Size and Dynamics of Pet Dog Population 1994, BCG analysis

Backup: Spay and neuter targets by zip code for southern Dallas

 Big Fix for Big D Zip Code

Zip code	Households	Y1 Intact (%) ¹	Y1 Estimated Dogs	Y1 Intact Population	Y1 Target S/N Surgeries	Y2 Target Intact Population	Y2 Target Intact (%)
75211	21,214	80	18,732	14,954	4,191	11,557	59
75212	7,311	84	6,456	5,412	1,395	3,846	60
75216	17,440	86	15,400	13,250	3,602	9,934	64
75217	22,015	88	19,439	17,050	4,686	12,922	65
75224	10,295	82	9,090	7,472	2,111	5,821	61
75227	17,572	86	15,516	13,320	3,813	10,514	64
75228	24,652	78	21,768	16,934	5,002	13,795	59
75241	10,647	87	9,401	8,211	2,318	6,391	65
75116	6,842	85	6,041	5,135	1,569	4,327	64
75134	7,320	85	6,464	5,494	1,680	4,634	64
75180	7,903	85	6,978	5,932	1,811	4,994	64
75203	6,292	81	5,556	4,528	1,264	3,487	60
75207	787	85	695	591	174	479	64
75208	10,391	78	9,175	7,201	2,052	5,658	59
75210	3,006	85	2,654	2,256	629	1,735	63
75223	4,478	83	3,954	3,274	913	2,518	61
75226	2,217	85	1,958	1,664	500	1,378	64
75232	10,221	86	9,025	7,722	2,197	6,058	64
75233	5,041	81	4,451	3,622	1,024	2,824	61
75236	4,801	81	4,239	3,413	997	2,748	60
75237	8,076	77	7,131	5,480	1,625	4,480	59
75249	5,238	76	4,625	3,520	1,040	2,869	58
75253	6,375	90	5,629	5,048	1,408	3,882	67
Total	220,134	83	194,378	161,481	46,000	126,852	62

1. Intact population in southern Dallas estimated from S/N status of DAS intake within zip. If intake in a given zip code was < 50 dogs, intact population assumed to be 85% of total dog population
 Source: Experian Current Year Estimates (Q2 2015), AVMA, Birth and Death Rate Estimates of Cats and Dogs 2004, ASPCA, Canine Perinatal Mortality Study 2012, DAS Chameleon database, Development of a Model for Estimating the Size and Dynamics of Pet Dog Population 1994, BFBD, SNN, SPCA, DAS, DCAP, PFL, BCG analysis



Anecdotally "culture" reported as a strong barrier limiting S/N levels, but evidence suggests otherwise

We've heard in some communities culture discourages sterilization

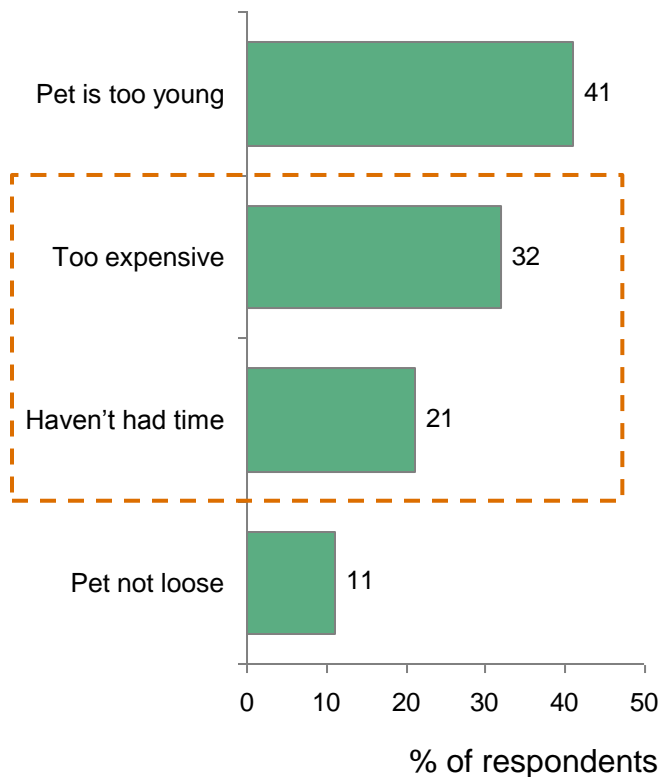
"Some communities are against spay and neuter."

"Residents in southern Dallas believe it's emasculating to sterilize dogs."

"Dogs are seen as safety/watch dogs in this area. They want them to be aggressive."

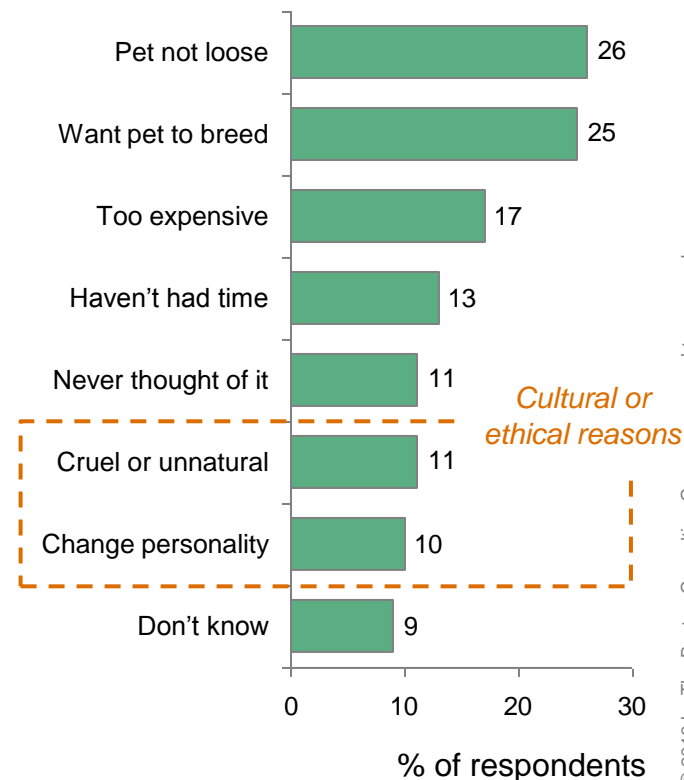
PetSmart Charities survey found price & time were two leading barriers

Reason not to sterilize



HSUS study found just 20% refused S/N for cultural/ethical reasons

Reason not to sterilize

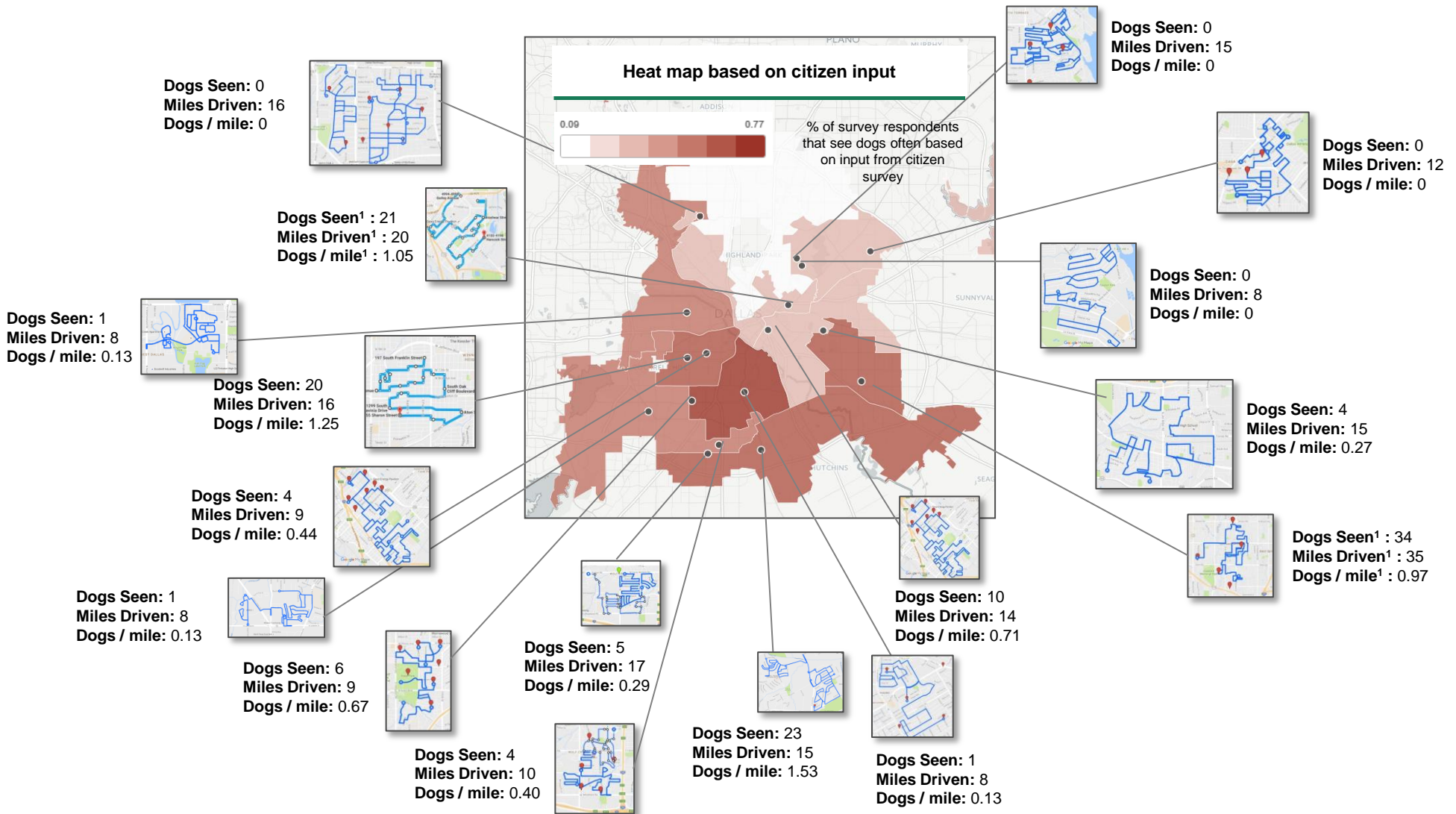


Note: PetSmart Charities conducted surveys in 2011 to recently acquired dog and cat owners in past 12 months (n = 317); Humane Society conducted 2007 study in Louisiana and Mississippi asking for top 2 reasons pets not sterilized (n = 779); Source: PetSmart Charities, Humane Society of US, BCG analysis



How many loose dogs are there in Dallas?

We conducted a census of the loose dog population in areas Dallas residents reported seeing them



1. Based on multiple routes driven; Note: 'Often' is at least once a day; Source: Google Maps, City of Dallas, Dallas Community Survey June 2016, BCG analysis



Based on results, estimate ~8,700 loose dogs in southern Dallas

Sizing population can be helpful in identifying resources needed to address issue and progress tracking

**What did we see:
136 dogs along 235 miles**

BCG counted loose dogs on ~235 miles driven

	Census Trips	Miles Driven	Dogs Seen	Average Per Mile
North Dallas	5	59	1	0.02
Southern Dallas	15	176	135	0.77

- Also observed citizens walking with sticks for protection on most routes in southern Dallas

**What does it mean:
~8,700 loose dogs in southern Dallas**

Observations extrapolated based on road mileage to estimate total loose dogs in Dallas

	Total Road Miles ¹	Dogs Seen / Mile	Unseen Multiplier ²	Average
North Dallas	2,226	0.02	n/a	n/a
Southern Dallas	1,751	0.77	~6.45x	~8,700

Math shown is simplified, but representative based on approaches endorsed by:

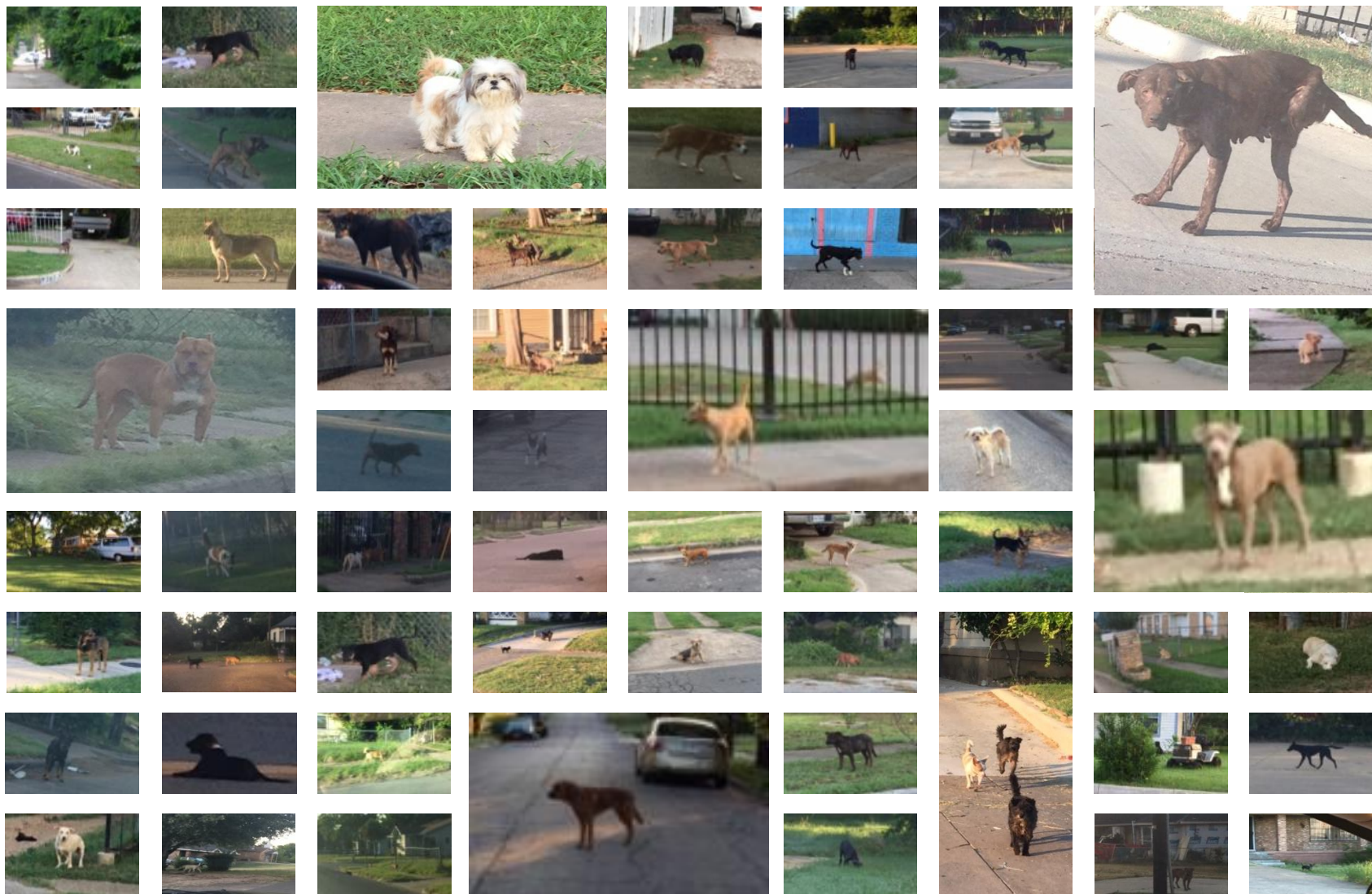


Census does not provide indication of trend and would need to be repeated in the future to assess progress

1. Roadway mileage from Navteq; 2. Multiplier based on capture-recapture approach outlined in The Ecology of Stray Dogs; Note: Utilized photographic capture-recapture (Beck Method) endorsed by WHO as well as sampling approach endorsed by WSPA; Census routes completed between June 28 – Aug 2nd between 6am - 730am; Source: WHO Dog Population Management Guide 1990, WSPA Surveying Roaming Dog Population, Navteq, The Ecology of Stray Dogs, BCG analysis



Detail: Loose dogs spotted during census were of various sizes and breeds—most appeared healthy and owned





National research helps to quantify link between loose dogs, public safety and animal welfare

Loose-owned dogs major bite risk

Most dog bites from owned dogs

- 83% of bites belong to someone else dog¹
- 40% of bites are from a stranger's dog²

Significant number of bites from loose dogs

- 35-45% of bites are from loose dogs^{3,4}
- 32% of fatal attacks from loose dogs⁵

Victims tend to be children or elders

- 38% of bite victims were children (15% of population)⁶
- 30% of bite victims were over 50 (11% of population)⁶
- 70% of fatal dog attacks were children under 10 and 21% over 50²

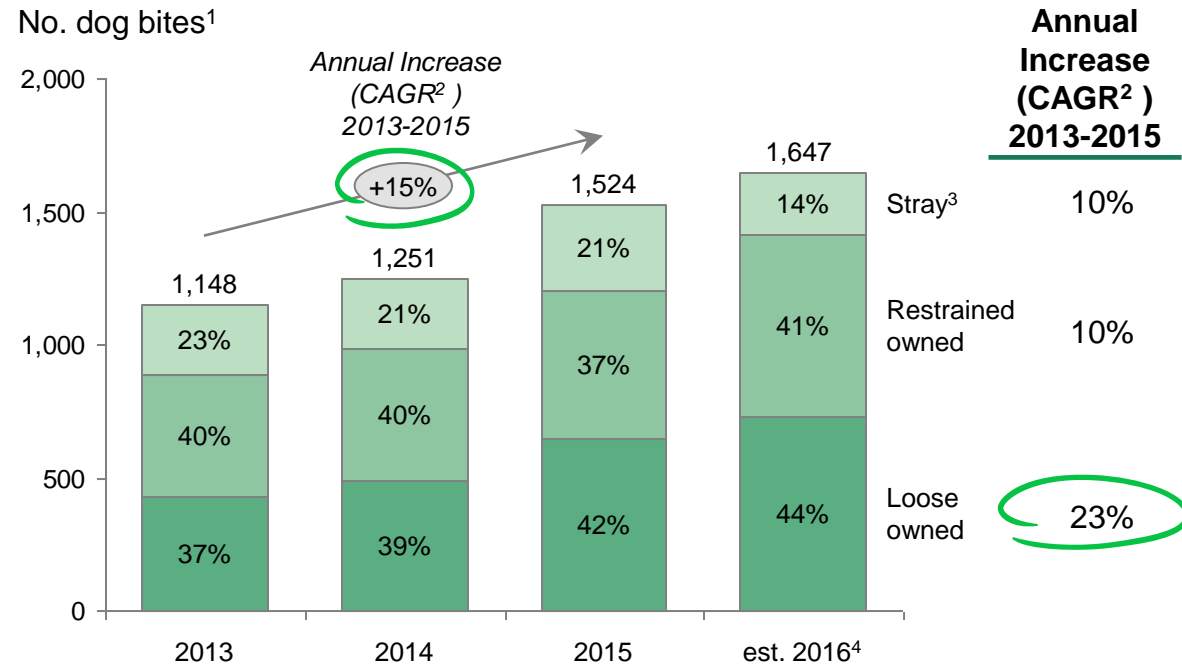
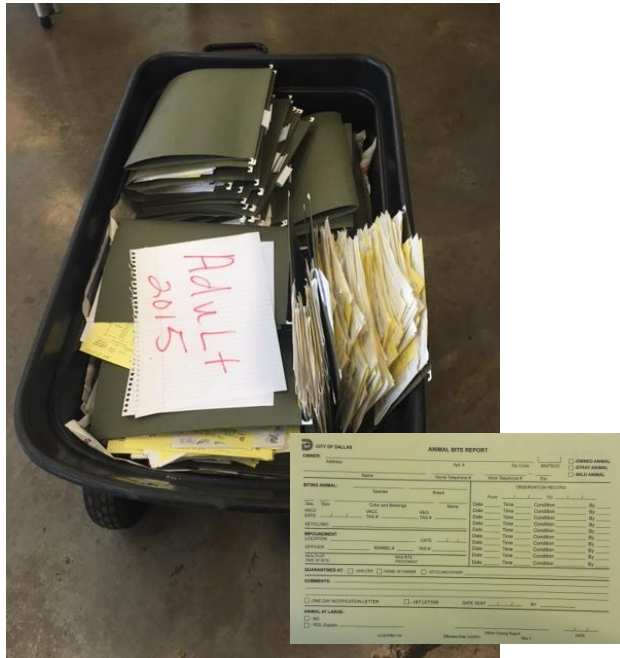
1. "Reported Dog Bites: Are Owned and Stray Dogs Different?" by John C. Wright; 2. "Medical costs and other aspects of dog bites in Baltimore" by DR Berzon and JB DeHoff; 3. "Dog And Cat Bites: Epidemiologic Analyses Suggest Different Prevention Strategies" by Gail L.R. Patrick and Kathleen M. O'Rourke; "loose"= unrestrained dog, off of its owner's premises; 4. "The Ecology of Dog Bite Injury in St. Louis, Missouri." by A.M. Beck, H. Loring, and R. Lockwood; "loose"= dogs off leash and without their owner in sight; 5. Sacks et al. (1989) study from The Ethology and Epidemiology of Canine Aggression by Randall Lockwood; 6. Beck et al. (1975) study from The Ethology and Epidemiology of Canine Aggression by Randall Lockwood; Source: See above footnotes, BCG analysis



Reported dog bites in Dallas up 15% annually from 2013-15 with bites from loose-owned dogs growing at 23%

DAS completes a "bite report" for every reported dog bite per CDC guidelines

In Dallas, dog bites, especially those from loose-owned, dogs are growing



1. DAS dog bite reports from 2013-2016 (n=4,290); BCG performed manual data entry of key fields; 2. Compounded annual growth rate; 3. Stray defined as a dog without an owner; 4. Compared the total dog bites for January to March of 2015 and 2016 to find ~1.1x growth in 2016. Applied ~1.1x to the total number of bites in 2015 (1,524) to estimate 2016 total dog bites. ; Note: For the fields that were left blank in the bite reports, assumed those reports were distributed in line with completed records. Whether dog was stray or owned had 213 incompletes (~4.9%). Of owned dogs, 1,384 (42.9%) had the "at large," or loose, field incomplete; Note: Dog bites are thought to be underreported in the US. In the future, better tracking of bites may result in an apparent increase as previously unreported bites begin to be reported; Source: DAS bite reports 2013 - Q1 2016, BCG analysis

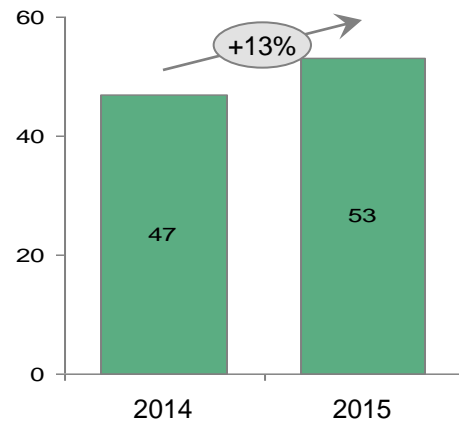


In addition, other unofficial indicators suggest bites are up

However sources are biased due to methods, taxonomy, and system of reporting

USPS dog attacks in Dallas grew by 13% in 2015

No. dog attacks on USPS carriers



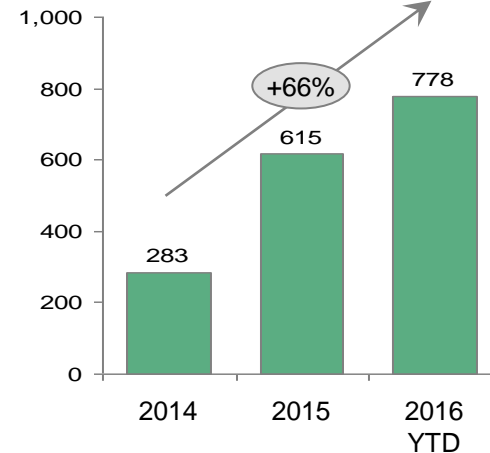
"I get bit all the time, man.... It's really rough, man. I been bit five times. We just had a guy come back, his arm's been bit, face swollen. He was out for about six months."

-Dallas USPS carrier

Data not controlled for USPS labor hours

311 requests related to attacks up 66% since '14

Avg. 311 attack requests per month¹

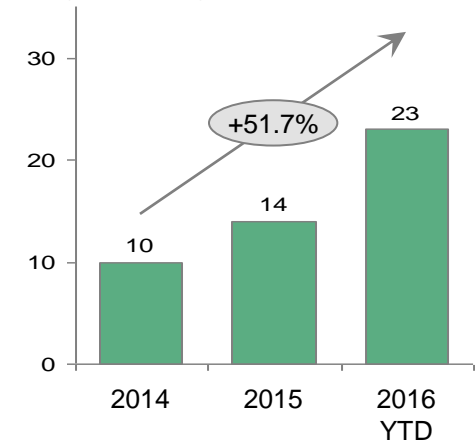


Average animal 311 requests per month	2014	2015	2016 YTD
	~4,000	~3,900	~4,200

Taxonomy of call type has changed over last 3 yrs.

911 dog attack calls up 51% since '14

Avg. 911 dog attacks per month²



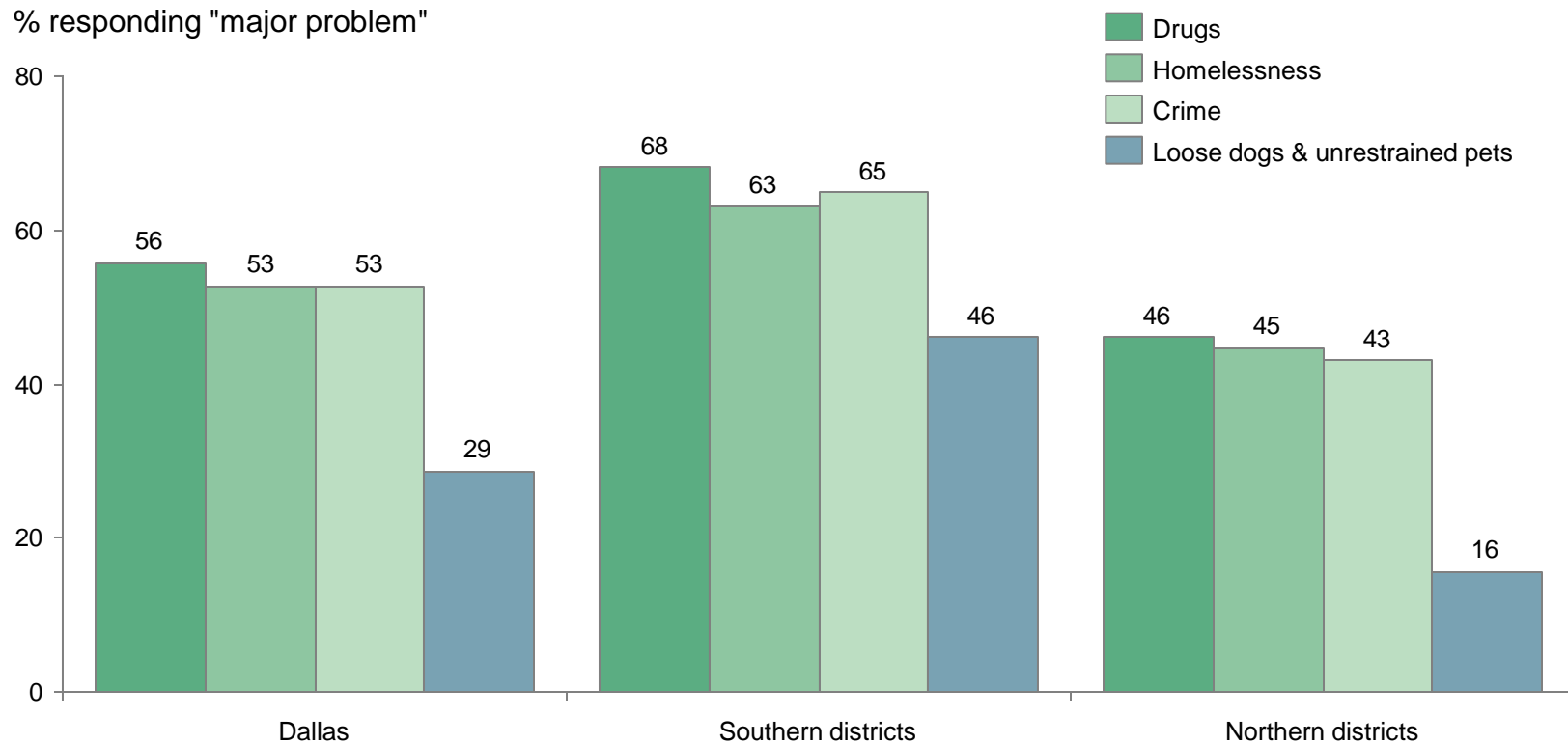
System for categorizing calls has changed over last 3 yrs.

1. Includes following types of 311 requests "aggressive activity," "attack in progress," "bite," and "urgent assist" ; 2. Includes calls tagged as "Attack by Dog SBI" and "Attack by Dangerous Dog"; Source: USPS 2016 dog bite report, D Magazine Article "Dallas Fights to Solve Stray Dog Problem", 311 service request history, Police RMS Incidents, accessed on 6/7/2016 and BCG analysis



Loose dogs not identified as the leading problem in Dallas, but 46% of southern Dallas considers it a "major problem"

% of community considering a problem a "major problem" from 2016 Community Survey conducted by City of Dallas



Note: I-30 used to separate North from southern Dallas. North Dallas includes districts 2,6,9,10,11,12,13,14. Southern Dallas includes districts 1,3,4,5,7,8

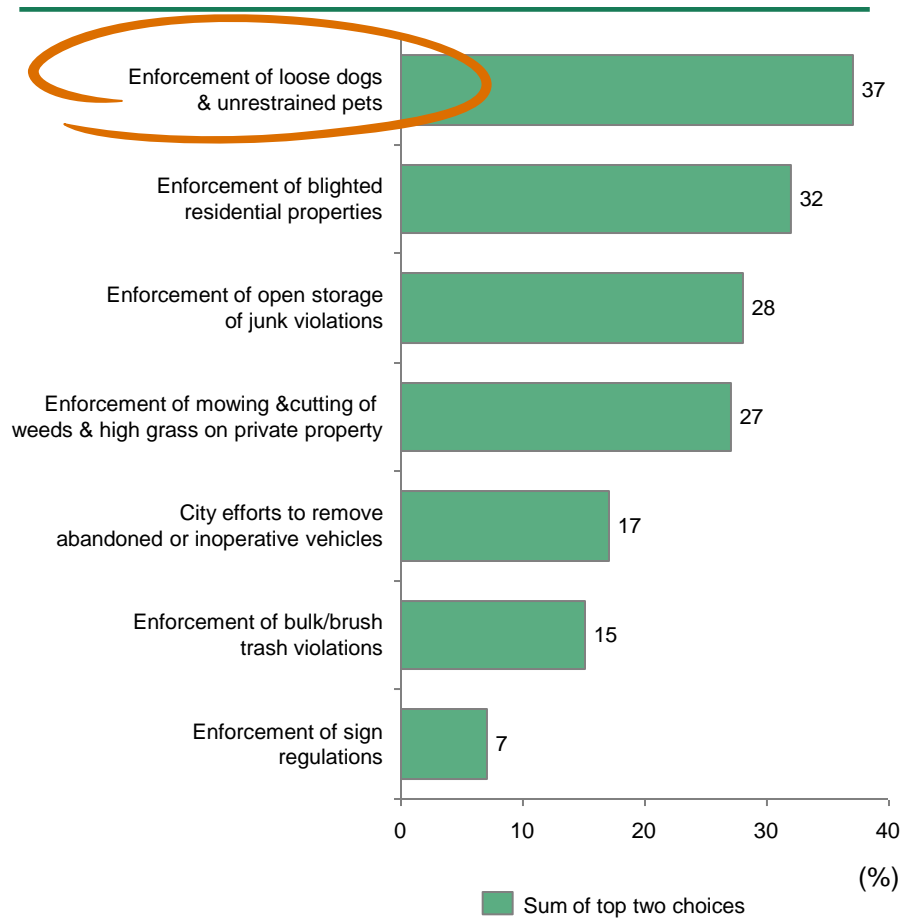
Source: ETC Institute Dallas Community Survey 2016, BCG analysis

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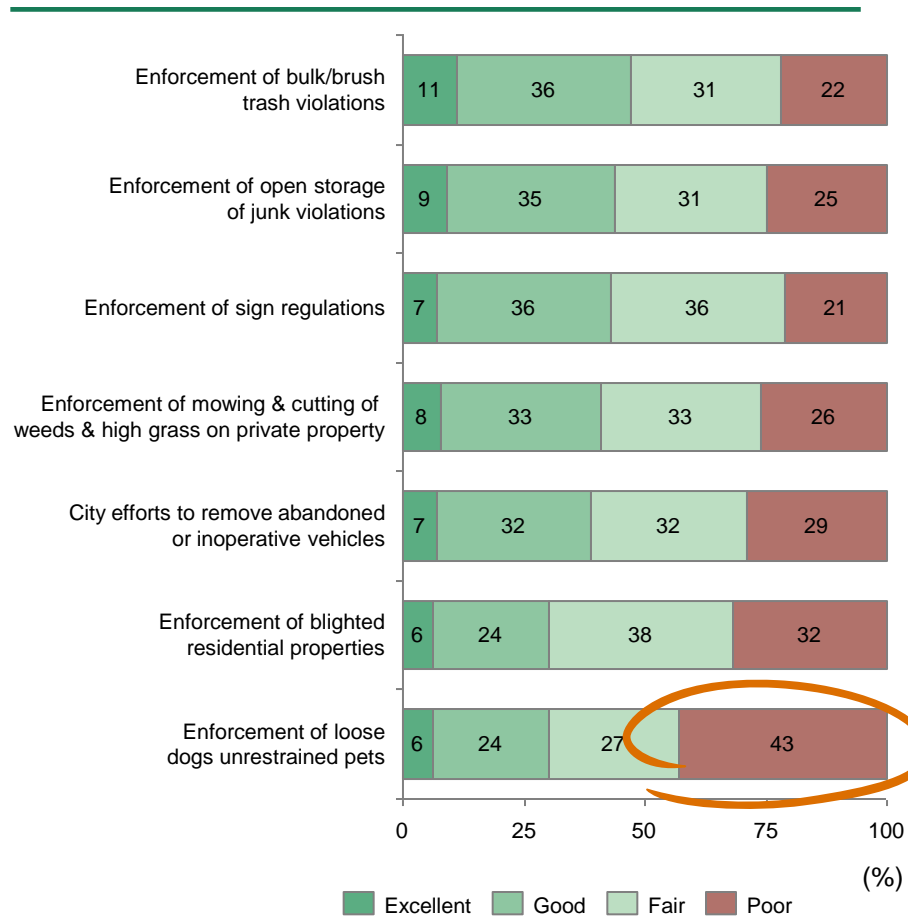


According to Dallas city survey, enforcement related to loose dogs cited as key mission for Code, but has low satisfaction

Dallas residents say loose dog enforcement is code's top mission



Yet ratings for loose dog enforcement are lowest in code department



② Enforcement & Reporting



Two key questions served as basis for approach to understand efficacy of enforcement

Key questions

Is DAS able to effectively respond to service requests?

Does Dallas effectively enforce it's animal ordinances?

Our approach

- Analysis of 311 requests
- Review of 311 scripts
- Interviews with ASOs and supervisors
- Ride-a-longs with ASOs
- Review of current animal-related ordinances
- Ride-a-longs with ASOs
- Analysis of citations issued
- Mapping of court follow-up



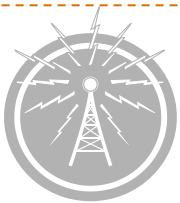
Section 7 of the City of Dallas, Texas Code of Ordinances covers all rules related to animals

Sec. Article	Title	Key Points
7.1	General	<ul style="list-style-type: none"> • Defines of adopters, animal, animal services, etc.
7.2	Animal Services; City Animal Shelters	<ul style="list-style-type: none"> • Establishes policies regarding DAS rights to impound, redeem, adopt, and euthanize animals
7.3	Care and Treatment of Animals	<ul style="list-style-type: none"> • States animals need to be properly restrained • States animals need to live in sanitary conditions
7.4	Specific Requirements for Dogs and Cats	<ul style="list-style-type: none"> • Requires dogs and cats to be vaccinated and registered • Limits number of dogs and cats in a single dwelling • Requires dogs and cats to be sterilized
7.5	Dangerous Dogs	<ul style="list-style-type: none"> • Defines dangerous dog as one that makes an unprovoked attack • Permits director to investigate dog upon written request • Allow director to impound dangerous dog if it makes an attack
7.6	Prohibited and Regulated Animals	<ul style="list-style-type: none"> • Requires regulated animals to have a valid permit
7.7	Miscellaneous	<ul style="list-style-type: none"> • States a person cannot interfere with animal services • States a person cannot sell an animal found on public property • Prohibits animals from being awarded as prizes
7.8	Violations, Penalties, and Enforcement	<ul style="list-style-type: none"> • States violations and penalties for Section 7 • Routes all monetary penalties to the Dallas Animal Welfare Fund



DAS responsible for enforcing these rules

DAS receives community information from four sources...



311
animal requests are funneled directly to DAS

Deep dive



911
fields emergency calls; dispatches DAS



Hospitals
receive attack victims and notify DAS



DAS
officers report a issues when in the field

...And responds with four methods of enforcement



Issue citations
to enforce code

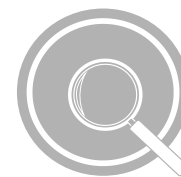
Deep dive



Capture dogs
through trapping, sweeping, direct contact

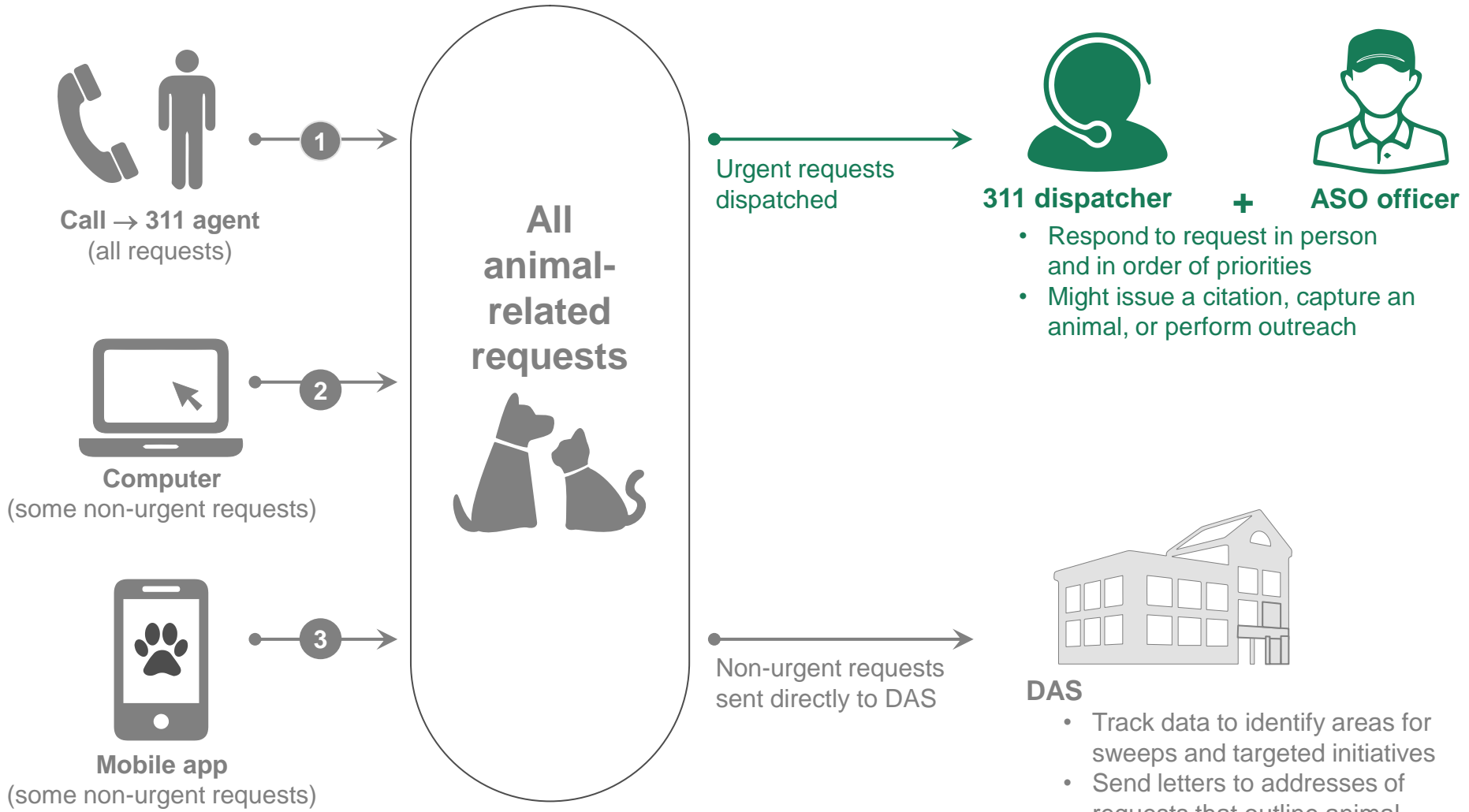


Engage in outreach
to avoid occurrence or worsening of issues



Conduct follow-up
after bites or with violations

311 animal requests made through three channels, but only urgent requests received via phone are dispatched to ASOs

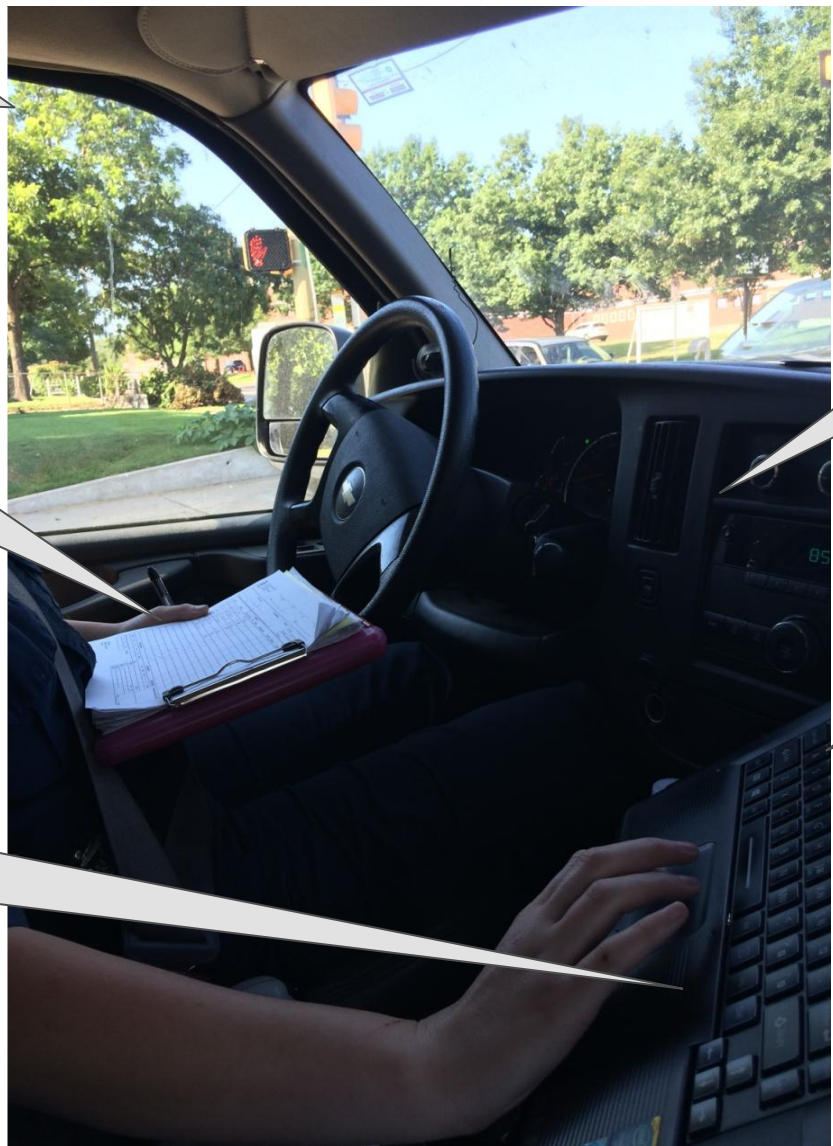


Annually, DAS fields ~48k calls, ~60% of which are dispatched for ASO response

	Priority Level	Response timeline	Response goal	Examples	TTM from May 2016	
Dispatched	1	Immediately	45m – 1 hour	Animals attacking humans or each other; humans attacking animals; public safety obstruction	12%	~45% of dispatched requests
	2	Immediately after Level 1	1-2 hours	Critically injured animals; animals that will die if left in their current condition/environment; rabies vector species in living quarters	16%	
	3	Immediately after Level 2	2-3 hours	Urgent assists to Police or Fire	0%	
	4	Once levels 1-3 cleared	3-4 hours	Animals on school grounds; aggressive packs of dogs; animal neglect; sick or injured	15%	
	5	Once Level 4 cleared	4-6 hours	Animal bite calls/quarantine; confined animals not in danger from the elements; wild animals in living quarters	3%	
	6	Once level 5 cleared	12 hours	Low priority police assists; owner surrenders for disabled or senior citizens; loose owned dogs	15%	
Non-dispatched	7	Case dependent	7-10 days	Follow ups	0%	~40% of requests not dispatched
	8	Within 7-30 days	7 days	Compliance calls; loose dogs in non CARE areas	38%	

1: Range is 6/1/2015-5/31/2016; Note: TTM is trailing twelve months. Applied Volumes for the calls that had outcomes (~44k) to all calls; Source: 311 interview, Animal Service Request Types matrix from 311 prepared on 6/20/2016, and "Follow-up to Dallas Animal Services Update" to Quality of Life Committee on 5/6/2016, BCG analysis

ASOs cite inefficient dispatch as time consuming



"It seems like 30% of calls don't have a proper address, an updated contact number, or an animal to respond to"

"I have to manually write down each request even though they are in the Chameleon system"

"311 doesn't patch through any photos taken so I have no idea what the dog looks like"



"The requests are not always prioritized correctly so I have to read the fine print of each request to determine if I should see to it immediately"

"Chameleon doesn't map my route for me so I have to always look at a mapsco or my phone to figure out the fastest route"

"My computer always disconnects from the internet so I have to stop, restart the computer, and wait to connect"



DAS ASOs issue citations, and municipal courts execute the follow-through actions

City oversight	DAS	Municipal courts	
Offender action	<p>Offender receives criminal or civil citation...</p> <div data-bbox="341 571 559 878">  <p>CRIMINAL 98% of all citations¹</p> </div>	<p>...and can respond to citations with one of several actions</p> <ul data-bbox="787 599 1212 771" style="list-style-type: none"> • Pay fine • Contest or request trial • Defer disposition • Claim indigence 	<p>If offender does not respond, further consequences issued</p> <ul data-bbox="1408 599 1875 771" style="list-style-type: none"> • Warrants • Increased penalty • Possible holds on drivers licenses
<hr/>			
	<div data-bbox="341 999 549 1178">  <p>CIVIL 2% of all citations¹</p> </div>	<ul style="list-style-type: none"> • Pay fine • Request a hearing 	<ul style="list-style-type: none"> • Collection agency • Barred from sitting on commissions and other municipal boards

1. Includes all citations between June 2014 and May 2016; Source: Citation data from municipal courts between June 2014 and May 2016, Dallascityhall.com, BCG analysis



Majority of citations issued for vaccination and sterilization, control and restraint, and registration

ASOs focus on particular types of code

Other

- Sale of animal
- Defecation
- Dangerous dogs

Vaccination and sterilization

- Animals wear tags that show rabies vaccination
- Animals altered unless specially registered

Control and restraint

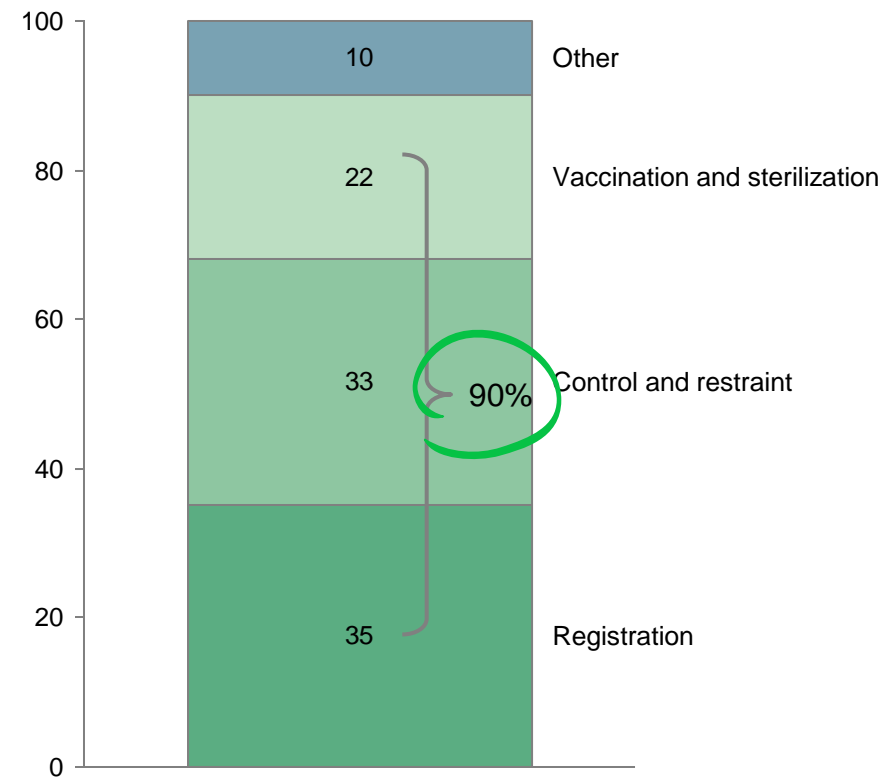
- Animals restrained and on leash in public
- Animals only restrained if owner is present and not more than 3 hours a days

Registration

- Animals wear proper tags
- Owner able to show registration receipt

90% of citations issued in three areas

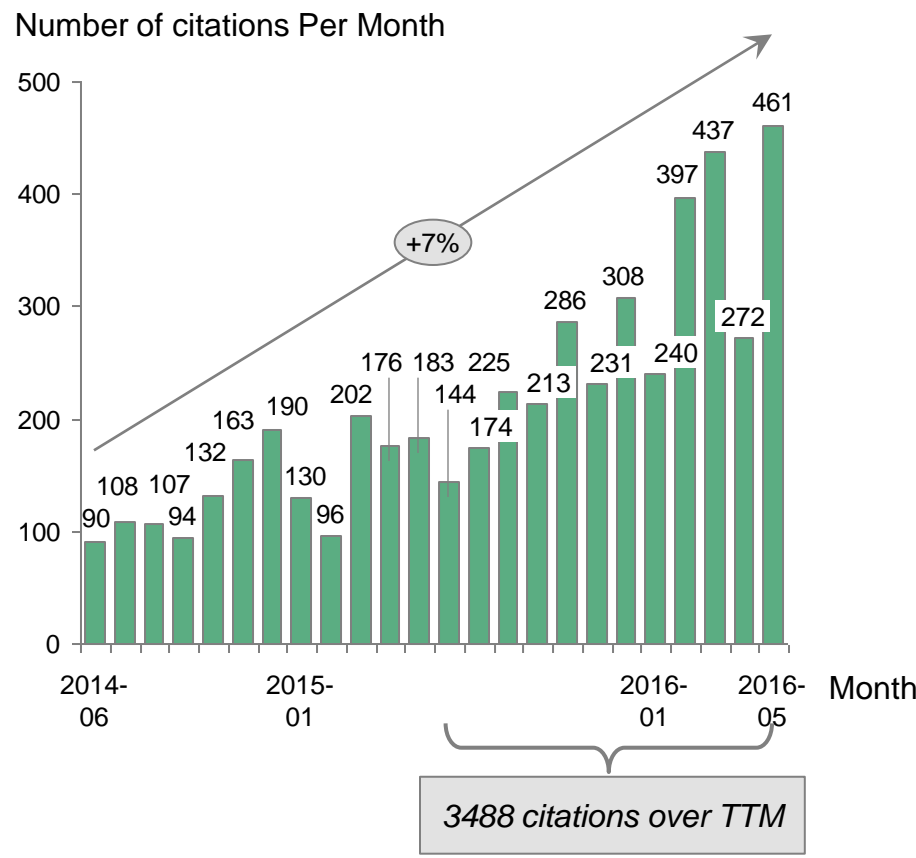
% of citations issued in last 24 months



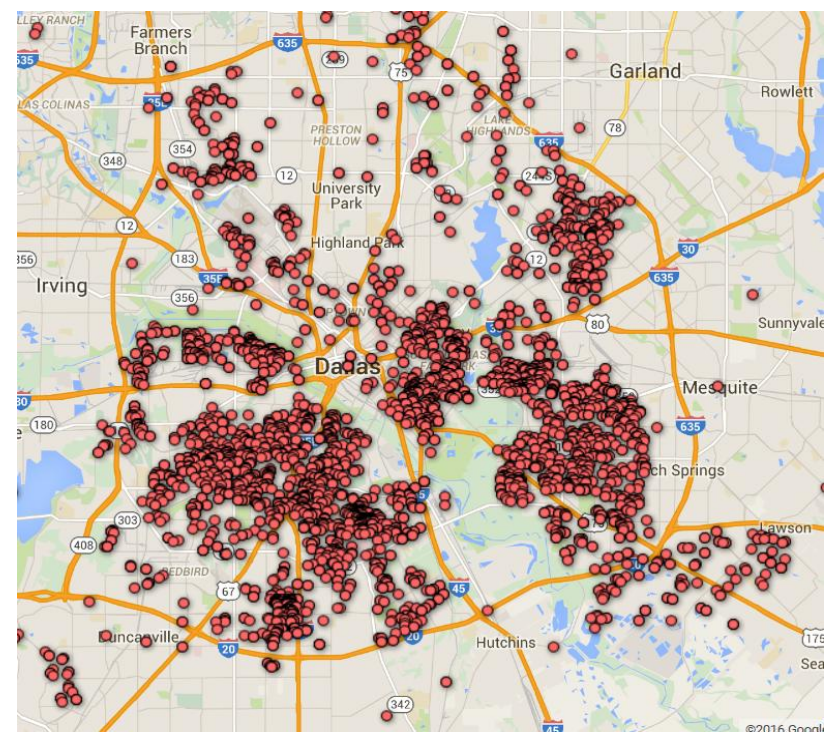


DAS citations growing at ~7% monthly and majority issued in southern Dallas

Monthly citations growing 7% monthly



Citations concentrated in southern Dallas¹

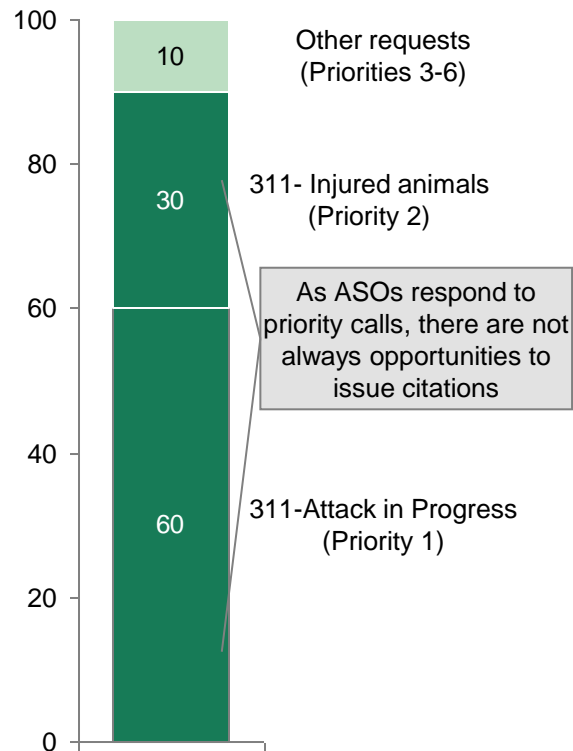


1. This concentration could be accounted for by the concentration of ASO officers where ~80% of ASO time is focused on southern Dallas; Note: TTM = trailing twelve months; Source: Google Maps, Citation data from municipal courts between June 2014 and May 2016, BCG analysis

Ability to issue more citations is hindered by three factors

First, most ASO time spent on priority calls

% of ASO time spent on service requests¹



Second, citations difficult to issue

Incorrect address entered into 311

No person or animal found at address

ASOs not deputized so can't enter property due to safety

Hard to identify the owner of a stray or loose dog

Civil citations can take up to an hour to issue due to IT difficulties

Third, officers know that citations aren't addressed

"They aren't going to pay them anyways"

"I don't think they are even arrested if they are pulled over and have outstanding animal citations"

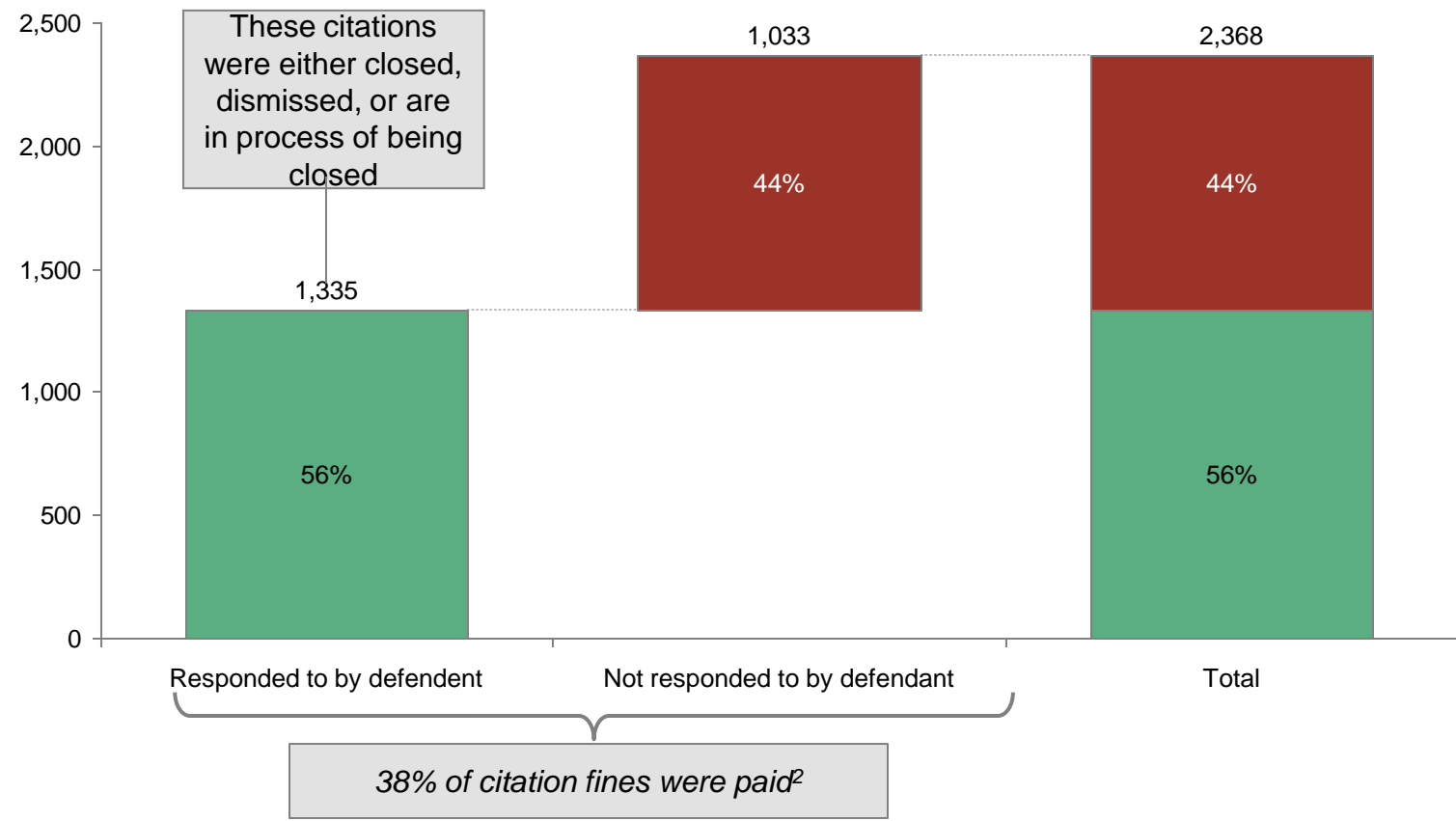
"Some people can't afford to pay them"

1. Anecdotal evidence from DAS ASO interview; Source: DAS ride along, DAS ASO and supervisor interviews, BCG analysis
20160826_BCG_DallasDog_WorkingMaterials_vPublic.pptx



44% of citations issued in 2015 were not responded to by defendant

No. citations 2015



1. For citations that had multiple outcomes classifications, included the outcome with the highest violation number with the assumption that that is the most recent outcome; 2. Maximum amount citation fines due was \$466,589.73, maximum total paid was \$177,661.37. In addition, some citations indicate that a defendant has not responded, but a citation has been paid; Source: Citation data from municipal courts between June 2014 and May 2016, BCG analysis

3 DAS Operations



Three key questions served as basis for approach to understand DAS shelter operations

Key questions

A

Intake: How do dogs arrive at shelter?

B

Inside Operations: What happens to dogs inside DAS?

C

Outcomes: Where do dogs go when leaving the shelter?

Our approach

- Analyzed DAS Chameleon data & BCG analysis
 - Conducted ride-alongs with ASOs
 - Surveyed DAS shelter employees
-
- Modeled costs by delineating/allocating DAS expenditures to stages of shelter ops; use third party estimates for medical procedures
 - Analyzed DAS Chameleon data & BCG analysis
-
- Analyzed DAS Chameleon data & BCG analysis



DAS mission statement primarily focused on animal welfare

Animal Welfare

Austin	To provide public service and a safety net for lost and homeless animals in the community by providing necessary food, water, shelter and standard municipal veterinary care for animals in need
Dallas (public)	Dallas Animal Services and Adoption Center is dedicated to the humane treatment of animals in Dallas and educating others about responsible pet ownership . We reinforce these ideals every day by providing daily care for hundreds of animals in our shelter, assisting citizens who come to see us as well as out in the community. We respond to calls regarding animal welfare and concerns, conduct free Responsible Pet Ownership classes, hold offsite animal adoption events, and speak at and provide educational information at public safety fairs, environmental festivals, and neighborhood organizations
Dallas (private)	To strengthen our community through outreach and enforcement efforts that preserve the human animal bond through the City of Dallas
Miami	To save the lives of abandoned animals in our care, reunite lost pets with their owners, protect the people and pets in our community from health related issues and ensure the public's safety
Jacksonville	Jacksonville’s Animal Care and Protective Services (ACPS) provides animal control to the citizens in Jacksonville by fair enforcement and community education. ACPS also enhances the quality of life in our neighborhoods by offering quality pets for adoption at a reasonable cost . ACPS is dedicated to providing a high level of service to the citizens in Jacksonville and to saving the lives of all adoptable animals in our community
Houston	Our mission is to promote and protect public health and animal care through sheltering, pet placement programs, pet ownership education and animal law enforcement
Los Angeles	To promote and protect the health, safety and welfare of animals and people
San Diego	To protect the health, safety & welfare of people & animals
San Antonio	Animal Care Services’ mission is to encourage responsible pet ownership by promoting and protecting the health, safety, and welfare of the residents and pets of San Antonio through education, enforcement, and community partnership.
Reno	Washoe County Regional Animal Services promotes responsible care of animals through education, proactive outreach, and regulation making Washoe County a safe community
Las Vegas	The mission of Clark County Animal Control is to promote public safety, rabies control and responsible pet ownership through education, service and enforcement

Public Safety

Source: Mission statements pulled from animal services websites in respective cities, BCG Analysis.



Current DAS leadership hired in 2011 to turn around shelter with high rate of euthanasia and little community trust

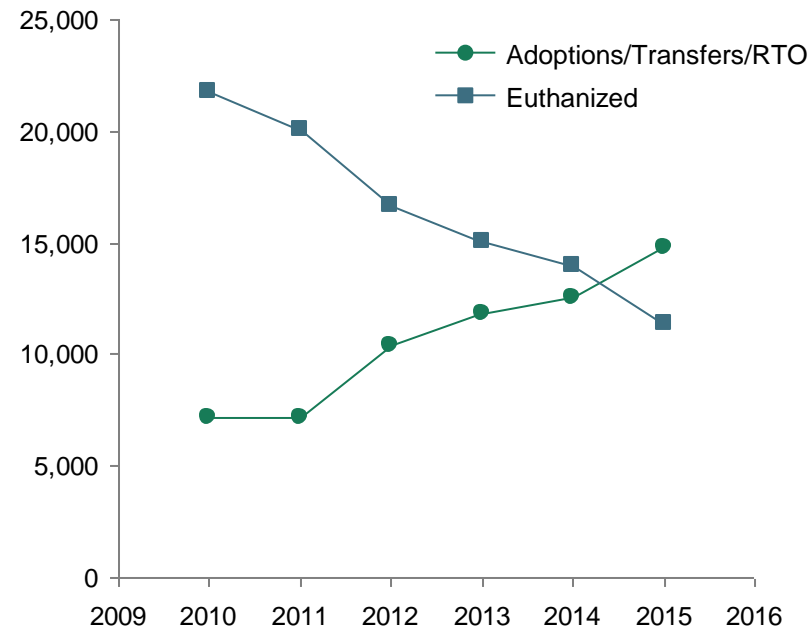
Leadership changed on heels of major systematic failures

"**Jones** and veterinarian and operations manager Catherine **McManus** were **hired** in 2011 and 2012 to **tighten up the struggling shelter**"

-Dallas Morning News

Since change euthanasia has decreased and releases to Dallas households up

DAS Dogs & Cats



Evidence suggest DAS has made drastic improvements in shelter operations and LRR since 2011



Today, dog intake split about evenly between OTC and Field

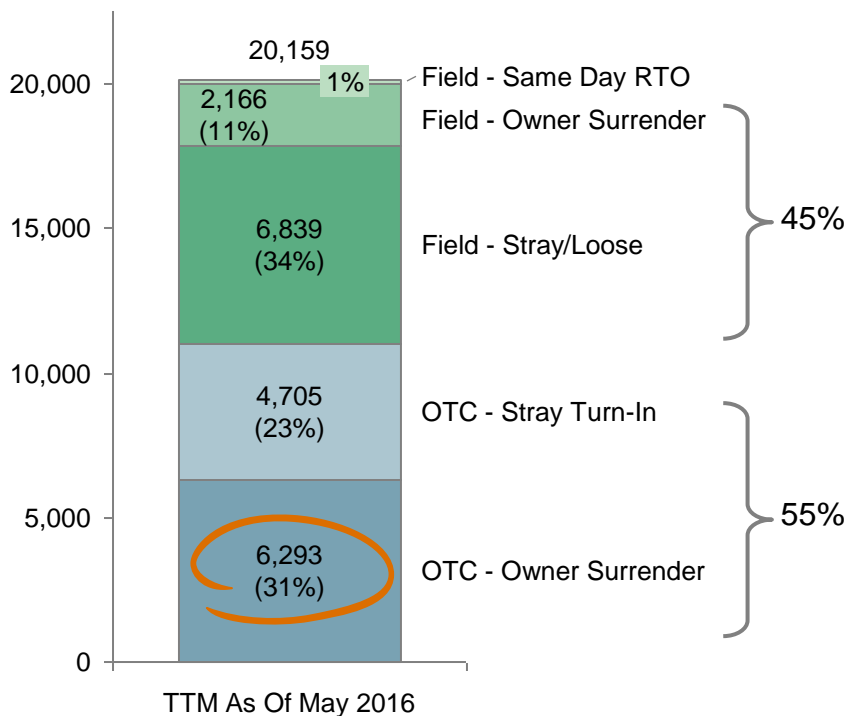
Largest bucket of activity are dog surrenders by owner (~30% of volume)

Several paths a dog take to the shelter

Avoided Intake	Field Same Day RTO: ASO picks up loose dog and returns to owner same day
Field	Field owner surrender: ASO picks up owner surrendered or confiscates dog
	Field stray/loose: ASO picks up stray or loose dog
OTC	Owner surrenders dog at shelter
	Stray turn-in: Volunteer/Activist catches dog and brings to shelter

>50% of DAS dog intake comes in OTC

DAS Dog Intake



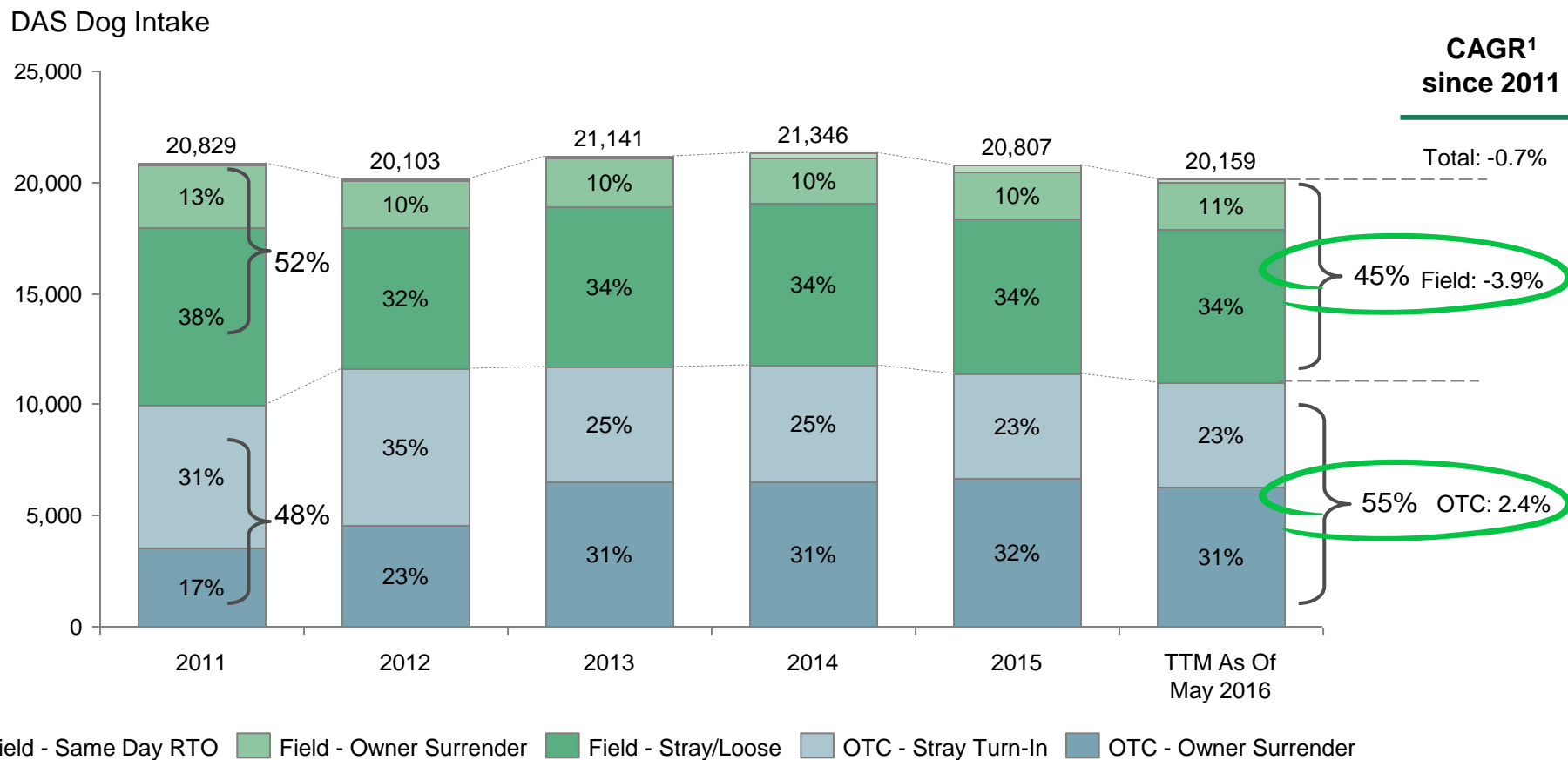
Note: TTM = trailing twelve months; Note: TTM period is from June 2015 through May 2016; Note: 'Field - Same Day RTO (return-to-owner)' includes dogs with primary intake type of 'Field' and any intake subtype and reunited with owner on the same day; 'Field - Owner Surrender' includes dogs with primary intake type of 'Field' and intake subtypes of 'owner surrender' or 'confiscated'; 'Field - Stray' includes dogs with primary intake type of 'Field' and intake subtype of 'stray' or 'stray - confined'; 'OTC - Stray Turn-In' includes dogs with primary intake type of 'OTC' and intake subtype of 'stray'; 'OTC - Owner Surrender' includes dogs with primary intake type of 'OTC' and intake subtypes of 'owner surrender' or 'confiscated'

Source: DAS Chameleon database, BCG analysis



Since 2011, DAS dog intake flat with increase in over-the-counter surrenders offsetting a decline in field intake

DAS Intake Volume by Type



1. CAGR = compound annual growth rate. 2. TTM = trailing twelve months; Note: 'Field - Same Day RTO (return-to-owner)' includes dogs with primary intake type of 'Field' and any intake subtype and reunited with owner on the same day; 'Field - Owner Surrender' includes dogs with primary intake type of 'Field' and intake subtypes of 'owner surrender' or 'confiscated'; 'Field - Stray' includes dogs with primary intake type of 'Field' and intake subtype of 'stray' or 'stray - confined'; 'OTC - Stray Turn-In' includes dogs with primary intake type of 'OTC' and intake subtype of 'stray'; 'OTC - Owner Surrender' includes dogs with primary intake type of 'OTC' and intake subtypes of 'owner surrender' or 'confiscated'

Source: DAS Chameleon database, BCG analysis

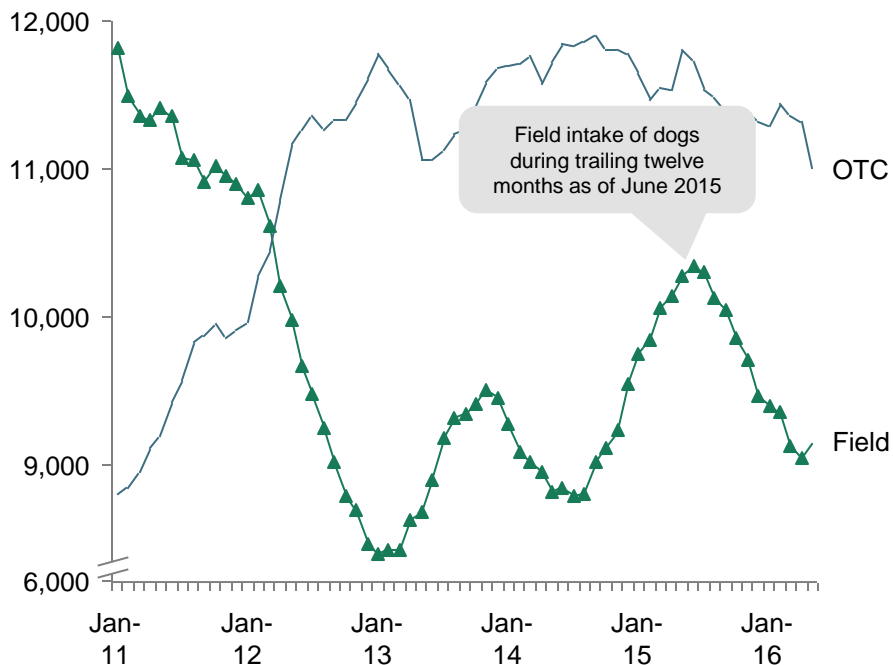


On trailing-12-month basis (TTM) volatility seen

OTC overtook Field intake in April 2012; Field intake more volatile than OTC intake

OTC surpassed Field intake in April 2012 and has been flat compared to Field

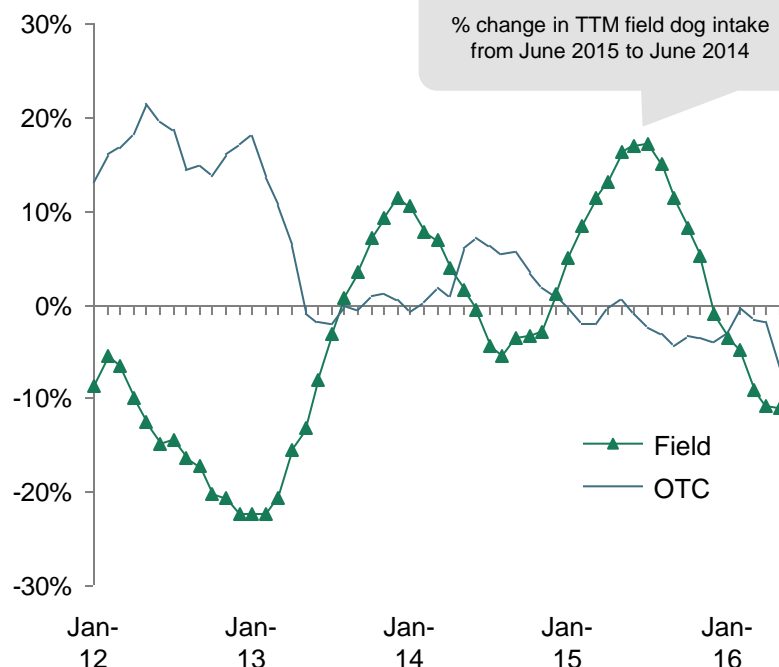
RTM Dog Intake



Volatility not explained by seasonality as each TTM period has same # of summer months

Field intake fluctuates more than OTC, where Field intake currently falling

Yr-over-Yr Intake % Change

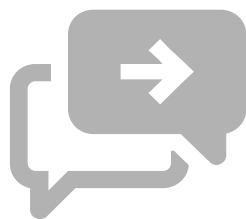




DAS Animal Services Officers responsible for 311 responses, Field Collection, Euthanasia — majority of work is reactive

Field work

Reactive (311)



Respond to 311 requests

Collect animals, return dogs to owners, issue citations, and educate community

Sweeps, cites, educates



~80% of ASO time

Proactive (Patrol)



Target one area with sweeps, door-to-door education, and citations (CARE team)

Perform sweeps of some neighborhoods



~10% of ASO time

Shelter work

Shelter



Create and investigate bite records

Euthanize dogs at the shelter

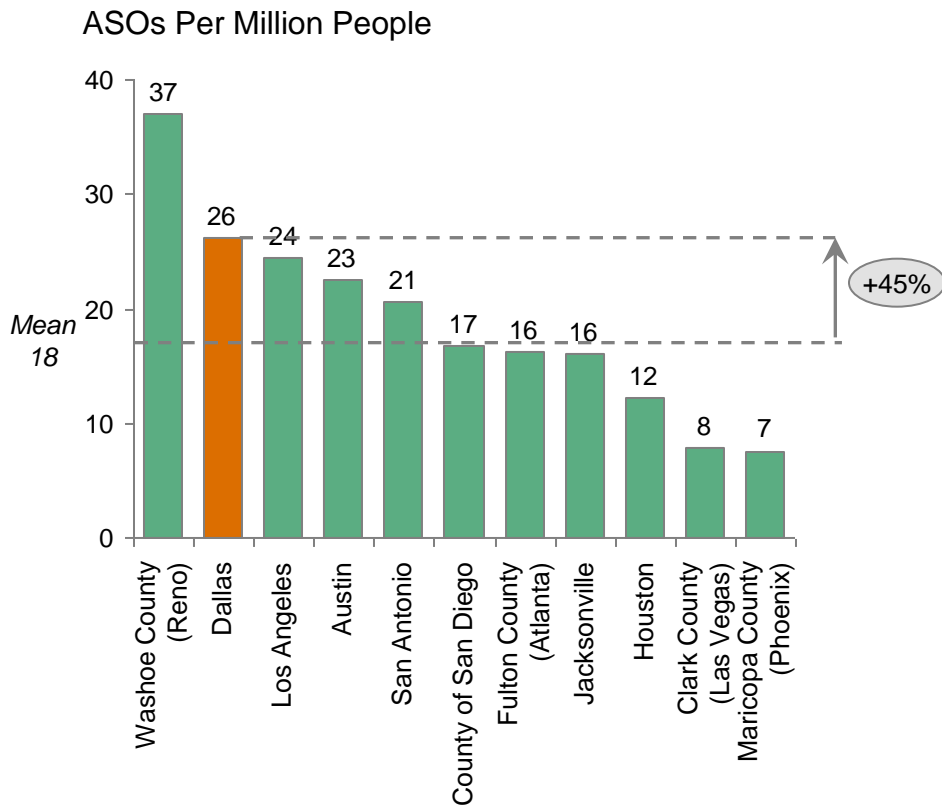


~10% of ASO time

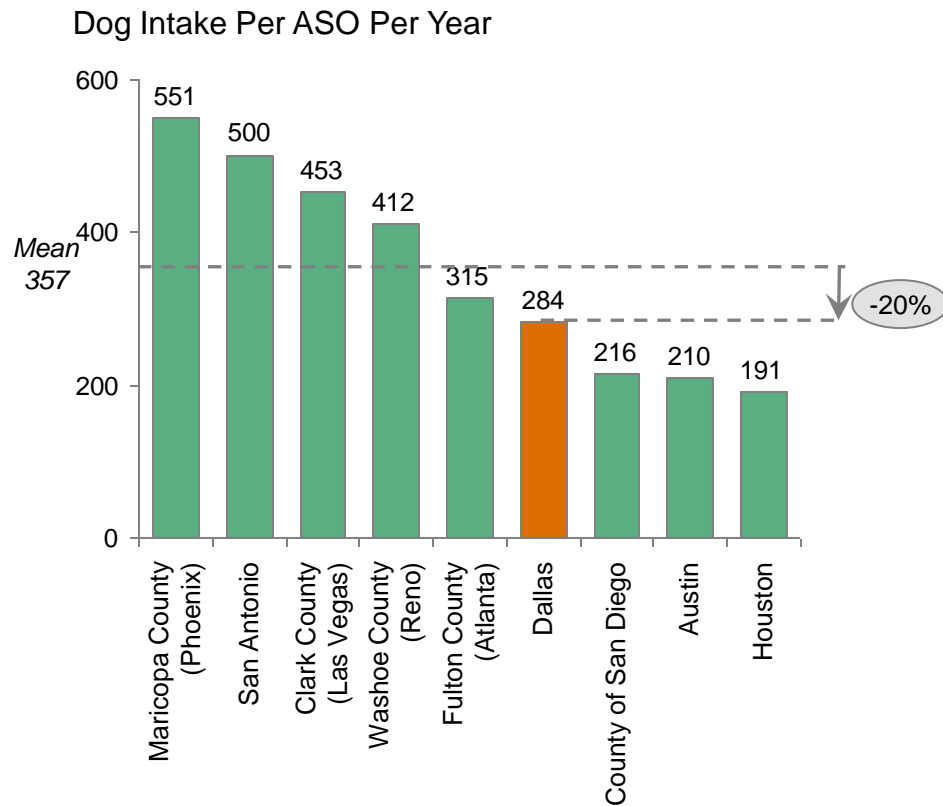


Compared to peers, DAS has higher ASO staffing levels and lower ASO field intake

DAS has 45% more ASOs per million people than benchmarks...



...but, DAS field collection lags by 20%



Note: Assumes 33 DAS ASOs with a field intake of 9363 for CY 2015.

Source: DAS Chameleon Database, Maricopa County Yearly Report (2016), Clark County Animal Control, County of San Diego Animal Services, Houston BARC, Fulton County Animal Services, Austin Animal Services, Jacksonville Animal Services, San Antonio Animal Services, Los Angeles Animal Services, Washoe County Regional Animal Services . Population from US Census Data (2013), BCG analysis

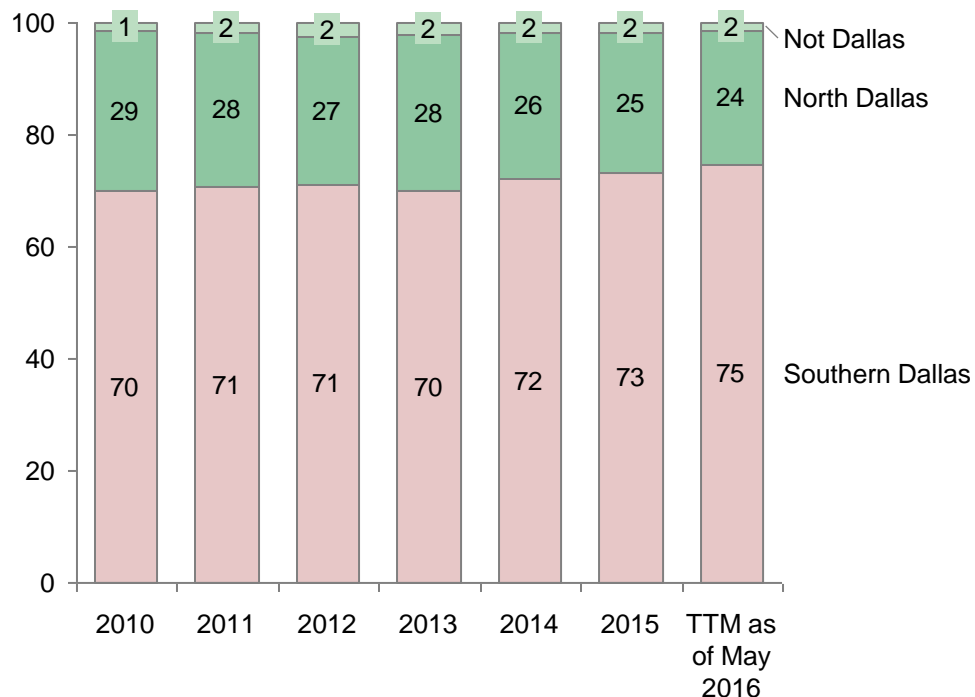


Majority of DAS dog intake from southern Dallas

75% of field intake from southern Dallas; 57% of OTC intake from southern Dallas

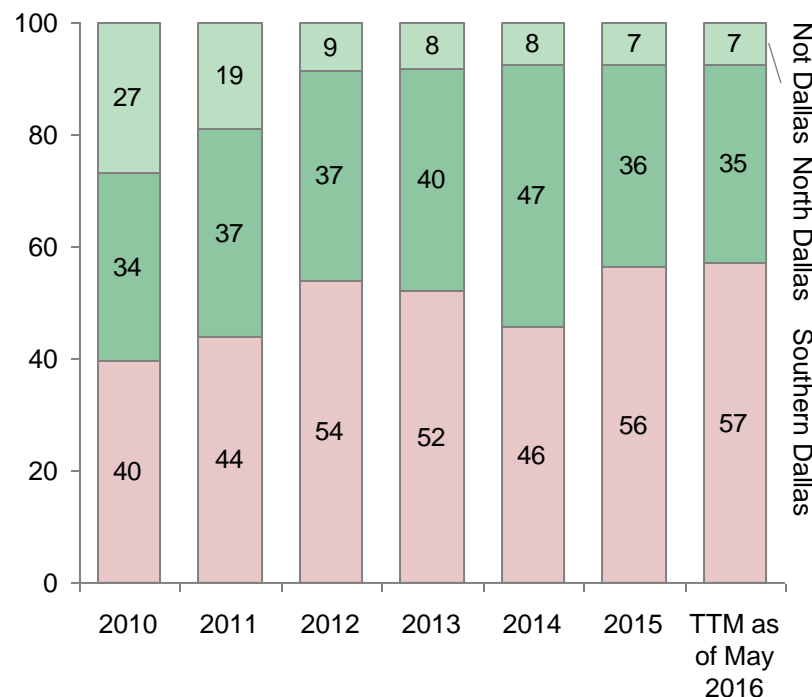
Field: 75% of Field intake from southern Dallas and has been trending up

% of Field intake



OTC: 57% of OTC intake from southern Dallas

% of OTC intake



Note: Used only intakes that were coded with addresses (88% of intakes). I-30 used to separate North from southern Dallas. North Dallas includes districts 2,6,9,10,11,12,13,14. Southern Dallas includes districts 1,3,4,5,7,8; Source: DAS Chameleon database, BCG analysis

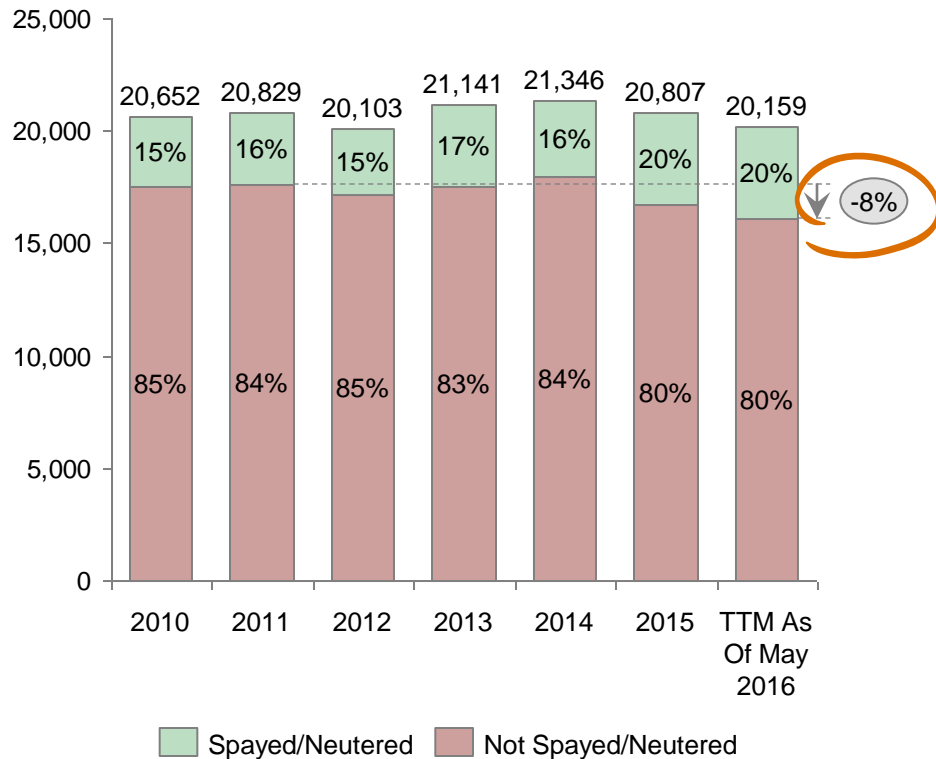


Spayed/neutered dogs represent ~20% of DAS dog intake

Larger proportion of spayed/neutered dogs received via OTC owner surrender than other channels

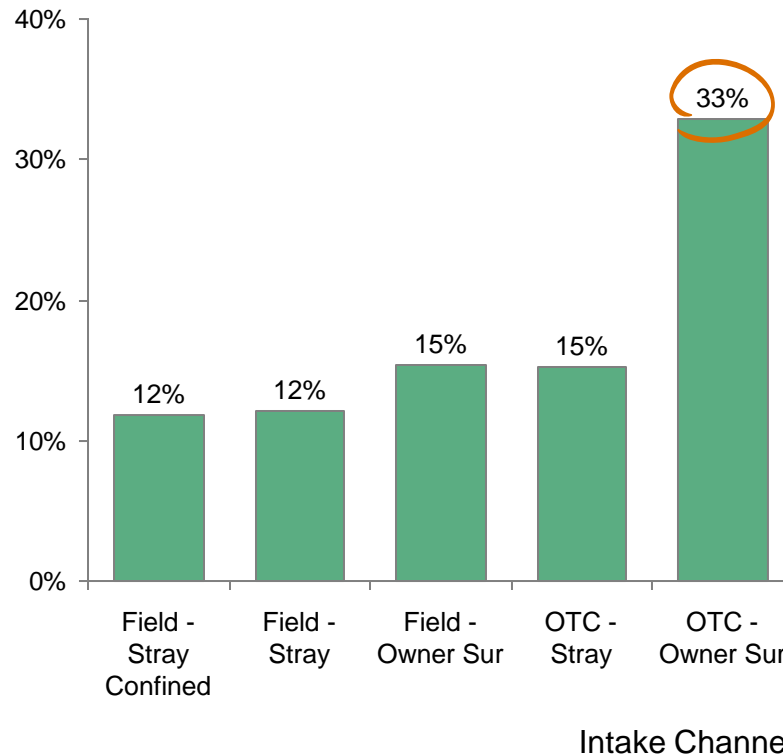
DAS intake of spayed/neutered animals declined ~8% since 2011

DAS Dog Intake



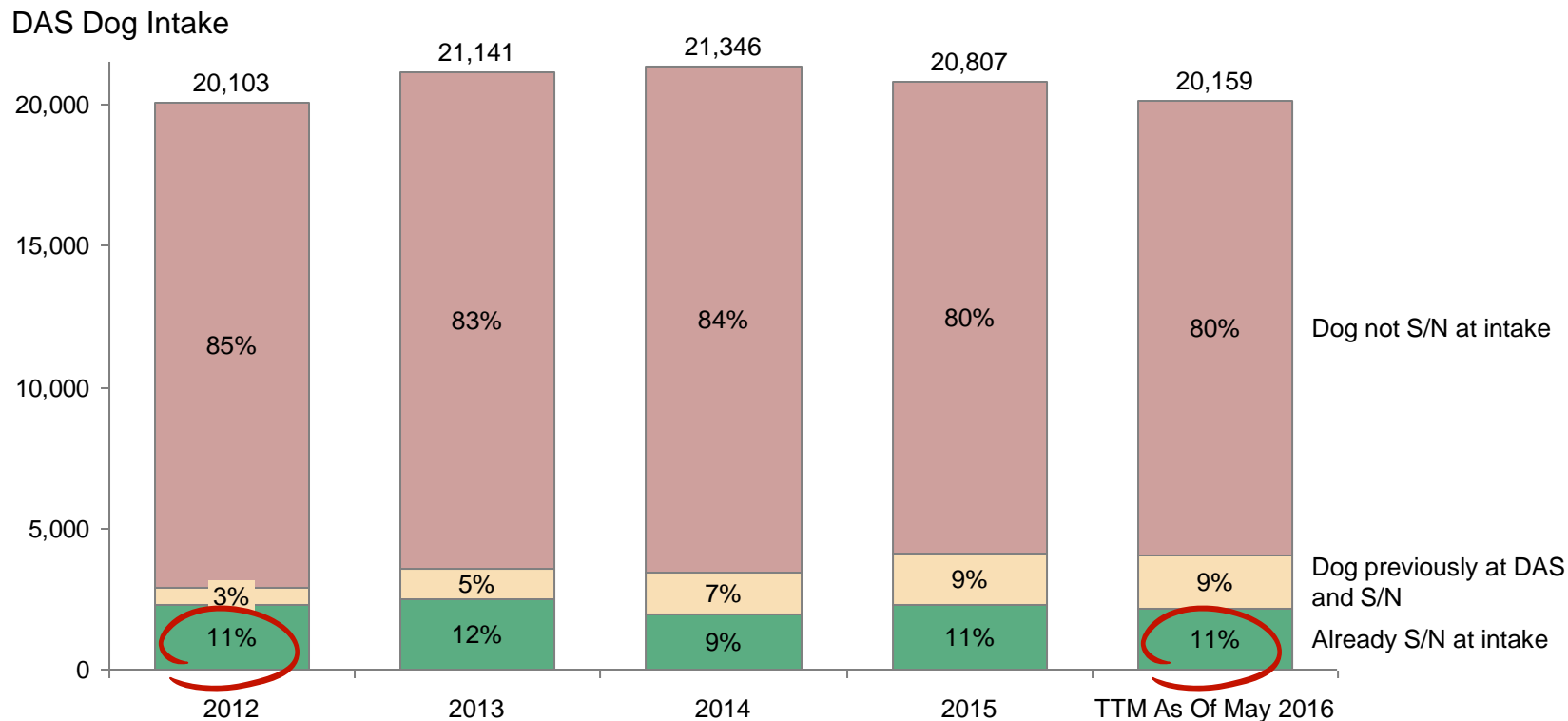
OTC surrendered dogs much more likely to be spayed/neutered at intake

% Spayed/Neutered





When excluding dogs returning to DAS, only ~11% of dogs at intake are already spayed or netuered – and steady since 2011

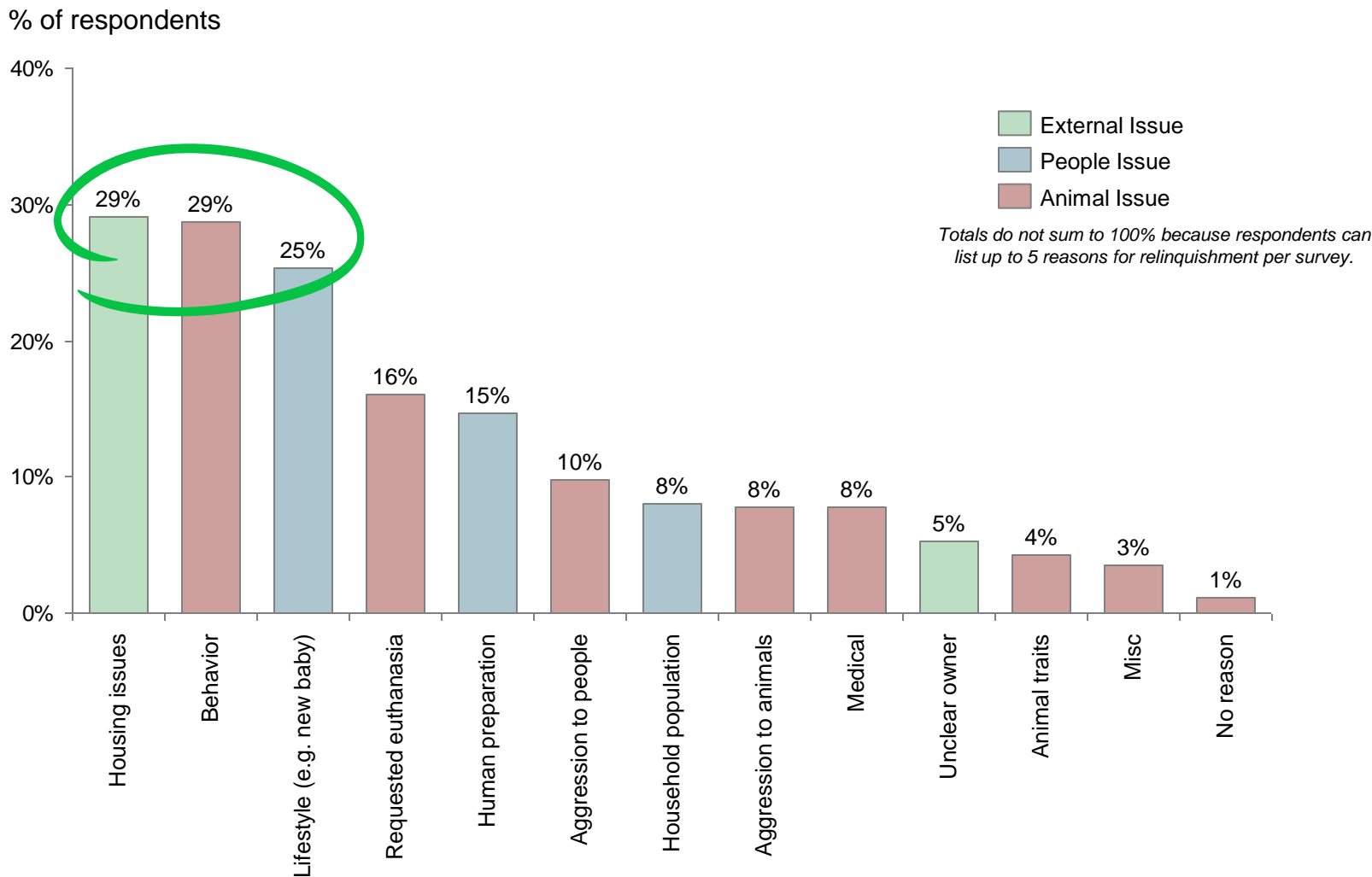


Lack of change in S/N of intake suggests community S/N efforts haven't reached a tipping point yet



Based on national research (not DAS-specific), owner surrenders often driven by housing issues, behavior, lifestyle

Interviewees' responses for reason relinquishing dog to shelter



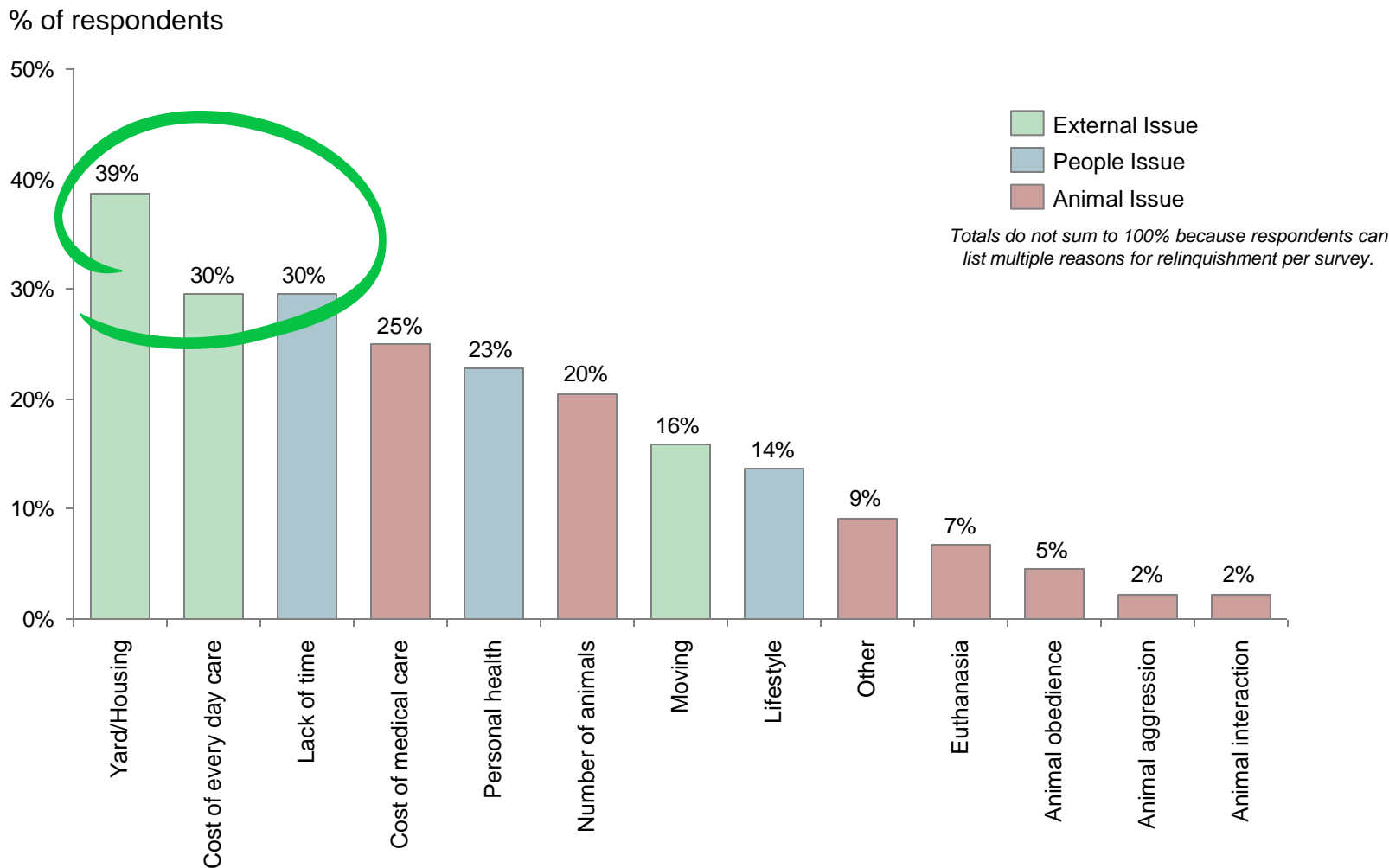
Note: Totals do not sum to 100% because respondents can list up to 5 reasons for relinquishment per survey

Source: "Human and Animal Factors Related to the Relinquishment of Dogs and Cats in 12 Selected Animal Shelters in the United States" published in Journal of Applied Animal Welfare Science; BCG analysis



Based on survey of DAS OTC owner surrenders, owners often point to housing issues, cost, time for relinquishment

Responses for reason relinquishing dog to DAS from OTC survey

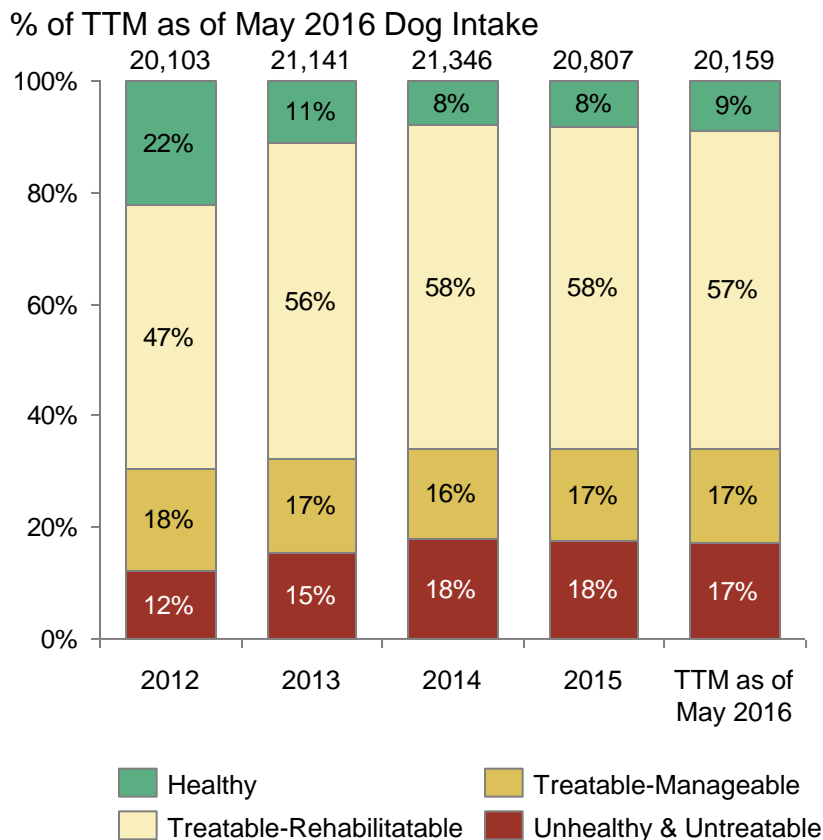




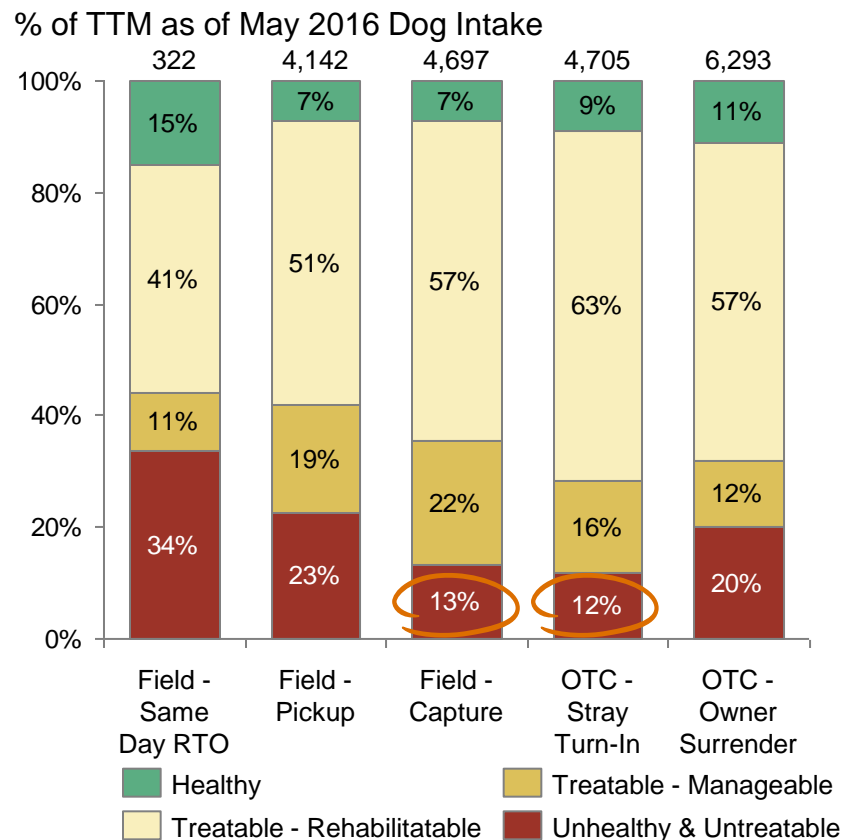
Upon intake, health assessed using Asilomar standards

Since 2014 the proportion of dogs categorized as unhealthy has hovered between 15% and 20%

Since 2014, proportion of dogs deemed unhealthy been ~15% to ~20%



Field captures and OTC stray turn-ins have fewest unhealthy dogs



Note: TTM = trailing twelve months; Asilomar health categories are defined as follows: "healthy" are reasonably healthy, reasonably well-adjusted pets over the age of eight weeks; "treatable-rehabilitatable" includes pets who are not "healthy," but who are likely to become "healthy," if typical medical care is provided "treatable-managable" means pets are not expected to become reasonably healthy, well-adjusted pets, even if they are given care that meets the standard in their community; "unhealthy & untreatable" poses a health/safety threat or is suffering from a disease, injury, or congenital or hereditary condition that adversely affects the animal life

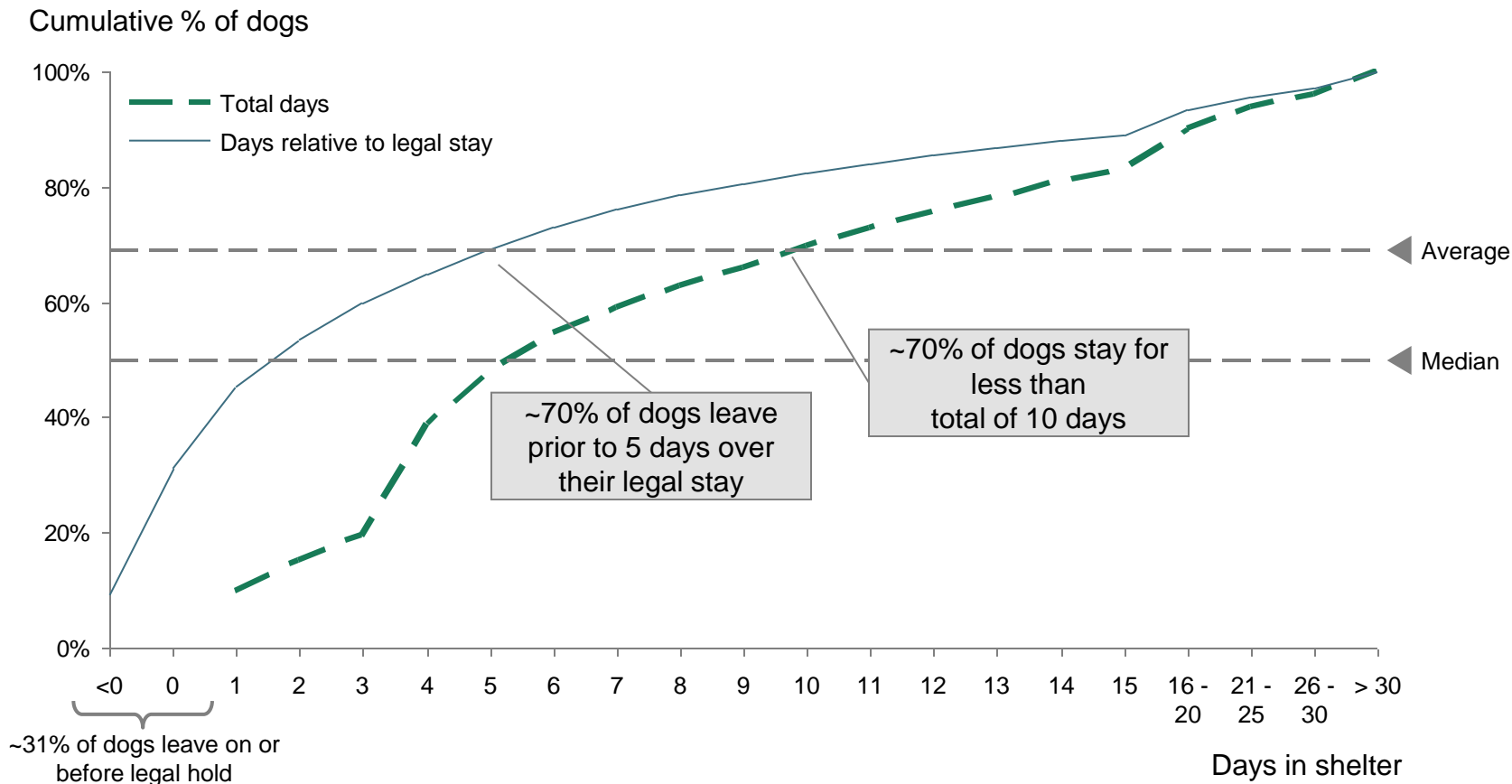
Source: DAS Chameleon database, BCG analysis



Median dog stays at DAS ~5 days, ~1.5 days past legal hold

Average dog stays at DAS ~9.5 days, ~5.6 days past hold, highlighting skew in longer-term stays

Total percentage of dogs having left shelter by shelter days



Reducing length of stay increases annual shelter capacity

Note: Excludes dog that are RTO or euthanized on same day as intake. Data are from 2014 through 2016 YTD

Source: DAS Chameleon database, BCG analysis

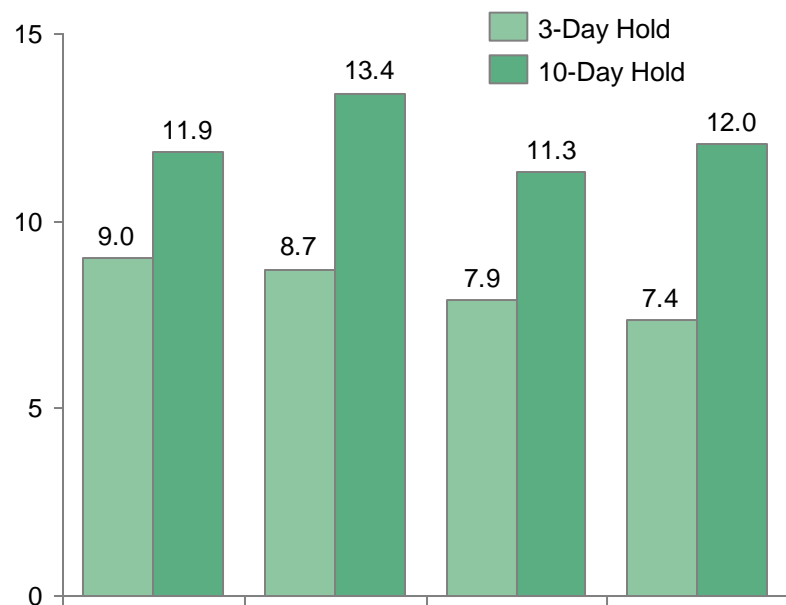
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Length of stay in DAS differs by intake type and eventual outcome

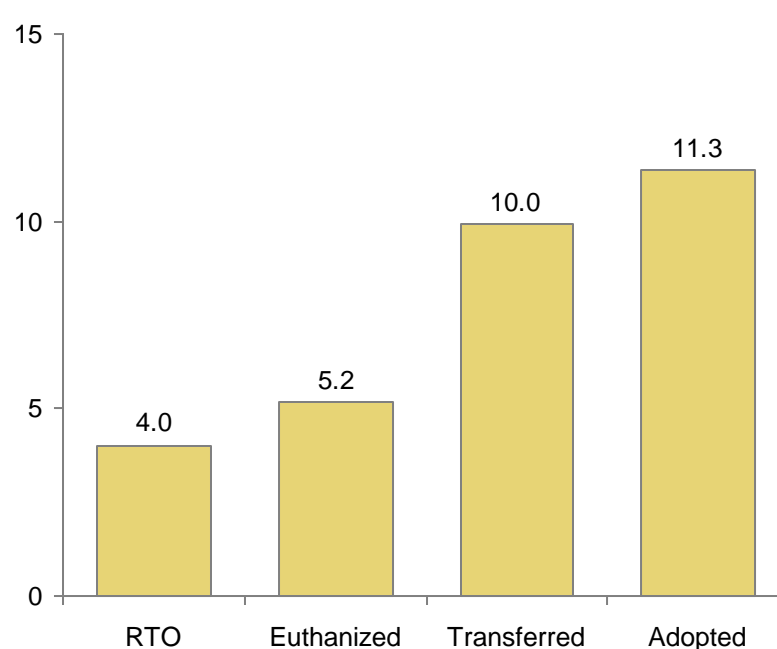
Dogs received OTC stay fewer days than dogs received from field

Average Days in DAS



Dogs eventually adopted stay longest in DAS

Average Days in DAS



Note: Data for calendar year 2015. 'Field - Same Day RTO' includes dogs with primary intake type of 'Field' and any intake subtype and reunited with owner on the same day; 'Field - Pickup' includes dogs with primary intake type of 'Field' and intake subtypes of 'owner surrender', 'confined', or 'confiscated'; 'Field - Capture' includes dogs with primary intake type of 'Field' and intake subtype of 'stray'; 'OTC - Stray Turn-In' includes dogs with primary intake type of 'OTC' and intake subtype of 'stray'; 'OTC - Owner Surrender' includes dogs with primary intake type of 'OTC' and intake subtypes of 'owner surrender' or 'confiscated'

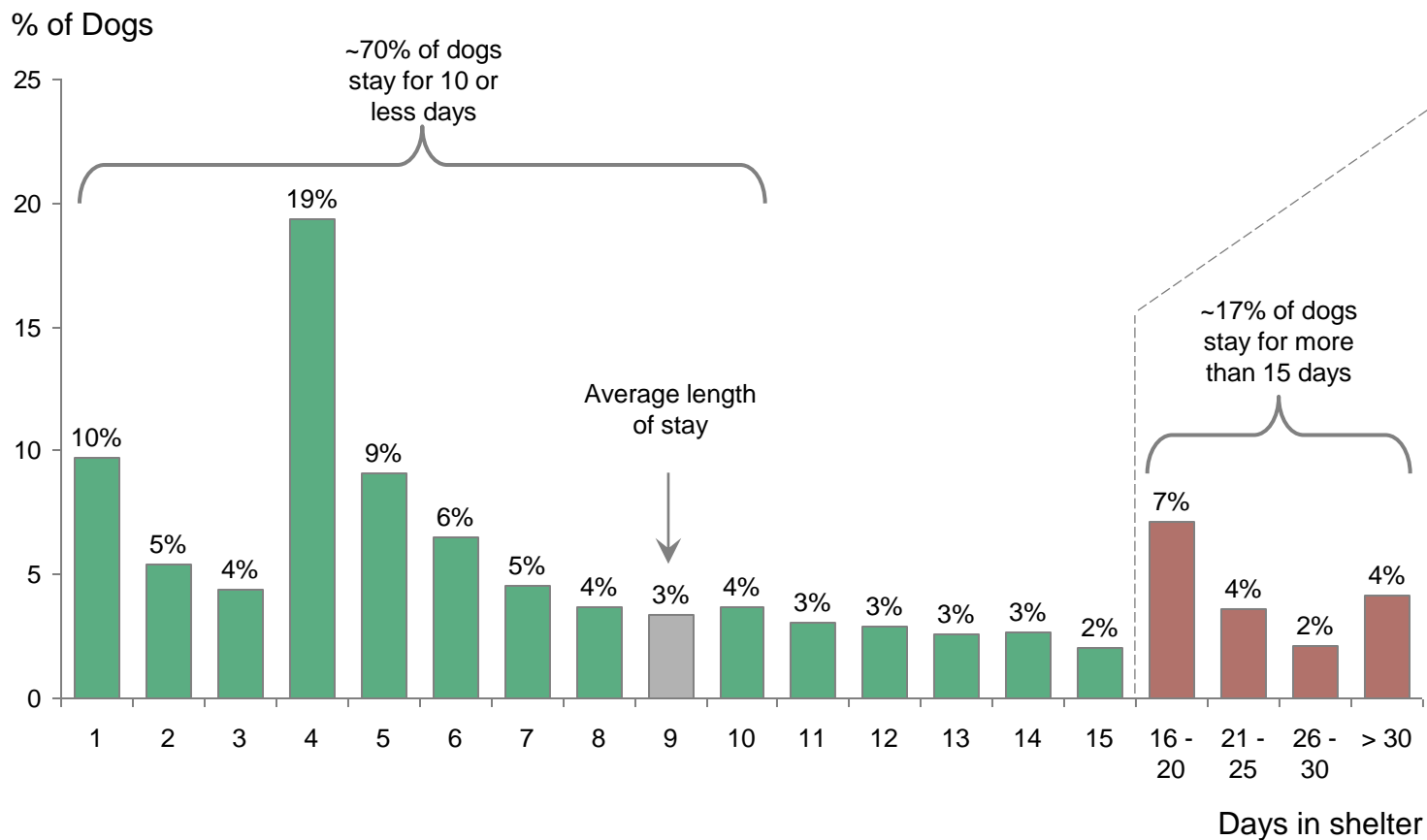
Source: DAS Chameleon database, BCG analysis



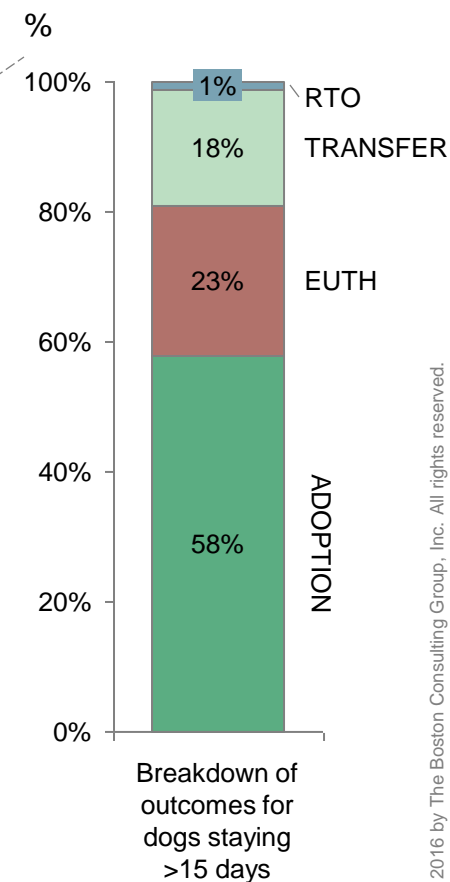
~70% of dogs leave shelter within 10 days

However, distribution tail is long with majority of lengthy stays eventually adopted

DAS Dog Length of Stay Distribution



Outcome of > 15 days group



Note: Excludes dog that are RTO or euthanized on same day as intake. Data are from 2014 through 2016 YTD

Source: DAS Chameleon database, BCG analysis

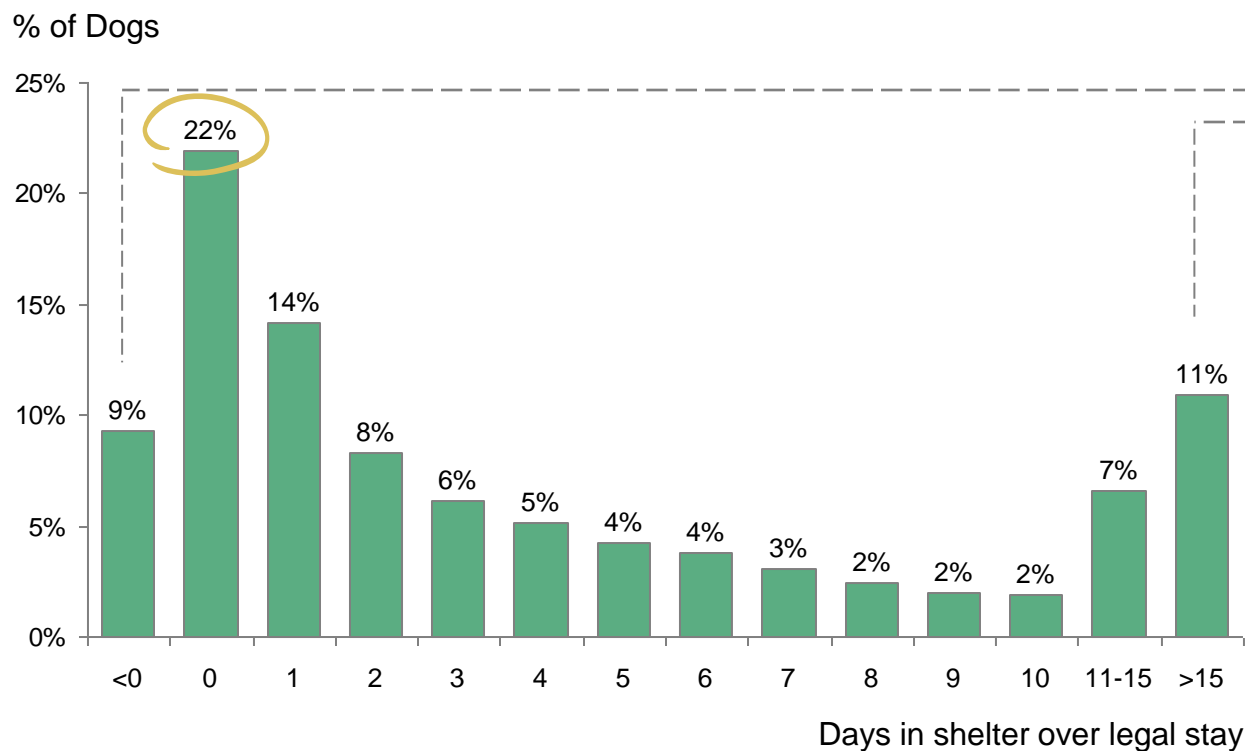
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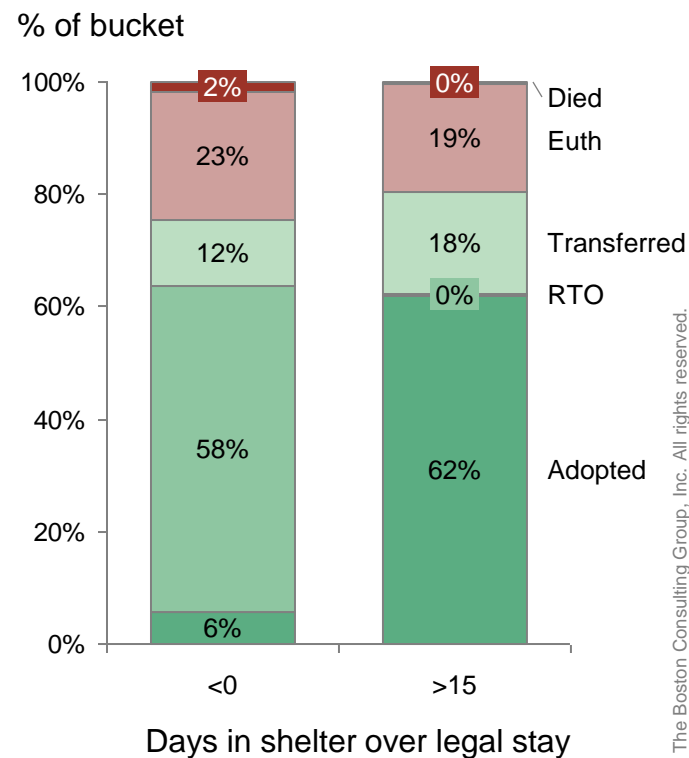
20% of dogs leave shelter when legal hold arrives

Majority of dogs leaving prior to legal stay are RTO

DAS Dog Length of Stay Relative to Legal Hold Distribution



Outcomes for dogs leaving before legal stay and >15 days



Note: Excludes dog that are RTO or euthanized on same day as intake. Data are from 2014 through 2016 YTD

Source: DAS Chameleon database, BCG analysis

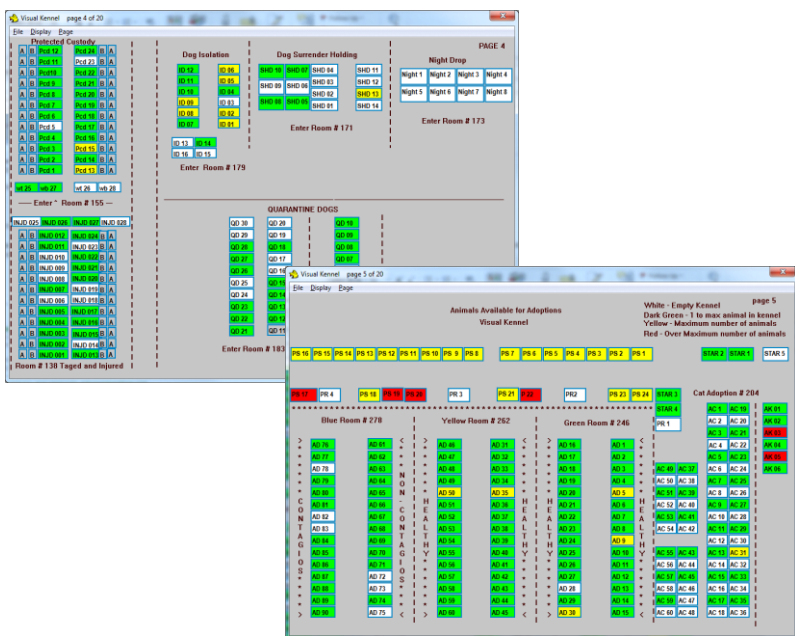
20160826_BCG_DallasDog_WorkingMaterials_vPublic.pptx



DAS shelter has ~500 dog kennels divided by animal and health types to prevent disease

A "visual kennel" shows which cages are empty, occupied, or too crowded

Visual Kennel Screenshots



Shelter Area	Dog Kennels	% of Dog Capacity
General (1 dog / kennel)	196	38%
Adoption (1 dog / kennel)	118	23%
Isolation¹ (1 dog / kennel)	137	26%
Puppy/Small (2/puppy & 1/small)	27	6%
Groups² (4 dogs / kennel)	10	8%
Total	488	100%

1. Isolation includes contagious, injured, isolated, protective custody, and quarantine. 2. Groups areas include new moms, families, and group custody

Source: DAS Chameleon database, BCG analysis



On average day in 2015, 89% of general kennels in use

Lower utilization of isolation kennels drives aggregate utilization to 71% of all DAS dog kennels

Shelter Area	Dog Kennels	% of Capacity	2015 Avg Utilized	Implied # Open	Max Day/ Area	May – July Avg	% days >80%
General (1/kennel)	196	38%	89%	21	124%	89%	72%
General Adoption (1/kennel)	118	23%	89%	13	142%	100%	66%
Isolation¹ (1/kennel)	137	26%	44%	86	80%	51%	0%
Puppy/Small (2/puppy & 1/small)	27	6%	43%	14	145%	68%	13%
Groups² (4/kennel)	10	8%	47%	0	168%	66%	12%
Total	488	100%	71%	124	97%	79%	16%

1. Isolation includes contagious, injured, isolated, protective custody, and quarantine. 2. Groups areas include new moms, families, and group custody; Note: 80% utilization or below leaves room for intake and cleaning. All data for 2015 calendar year
Source: DAS Chameleon database, BCG analysis

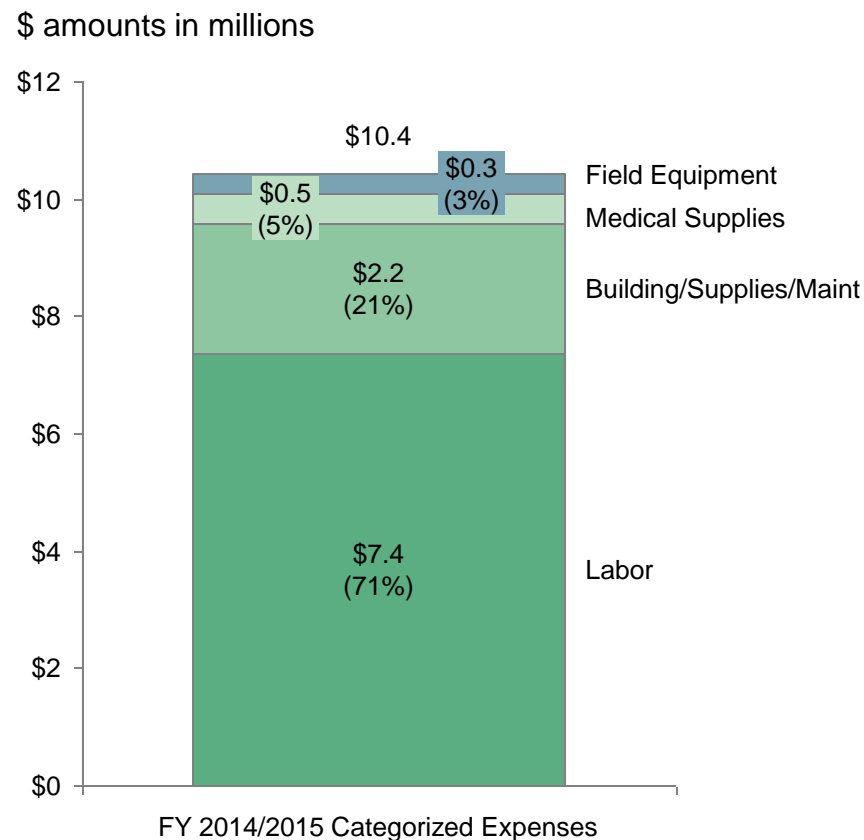


Understanding the cost of care for dogs, 4 main categories of costs identified for allocation

Groupings from detailed expenses

<u>Expense</u>	<u>Examples</u>
Field Equipment	<ul style="list-style-type: none"> Fuel ASO equipment Truck maintenance
Medical Supplies	<ul style="list-style-type: none"> Surgical supplies Vaccinations Gloves
Building/Supplies/Maint	<ul style="list-style-type: none"> Furniture Freight Office supplies
Labor	<ul style="list-style-type: none"> Salaries Temp labor Pensions Contract service fees

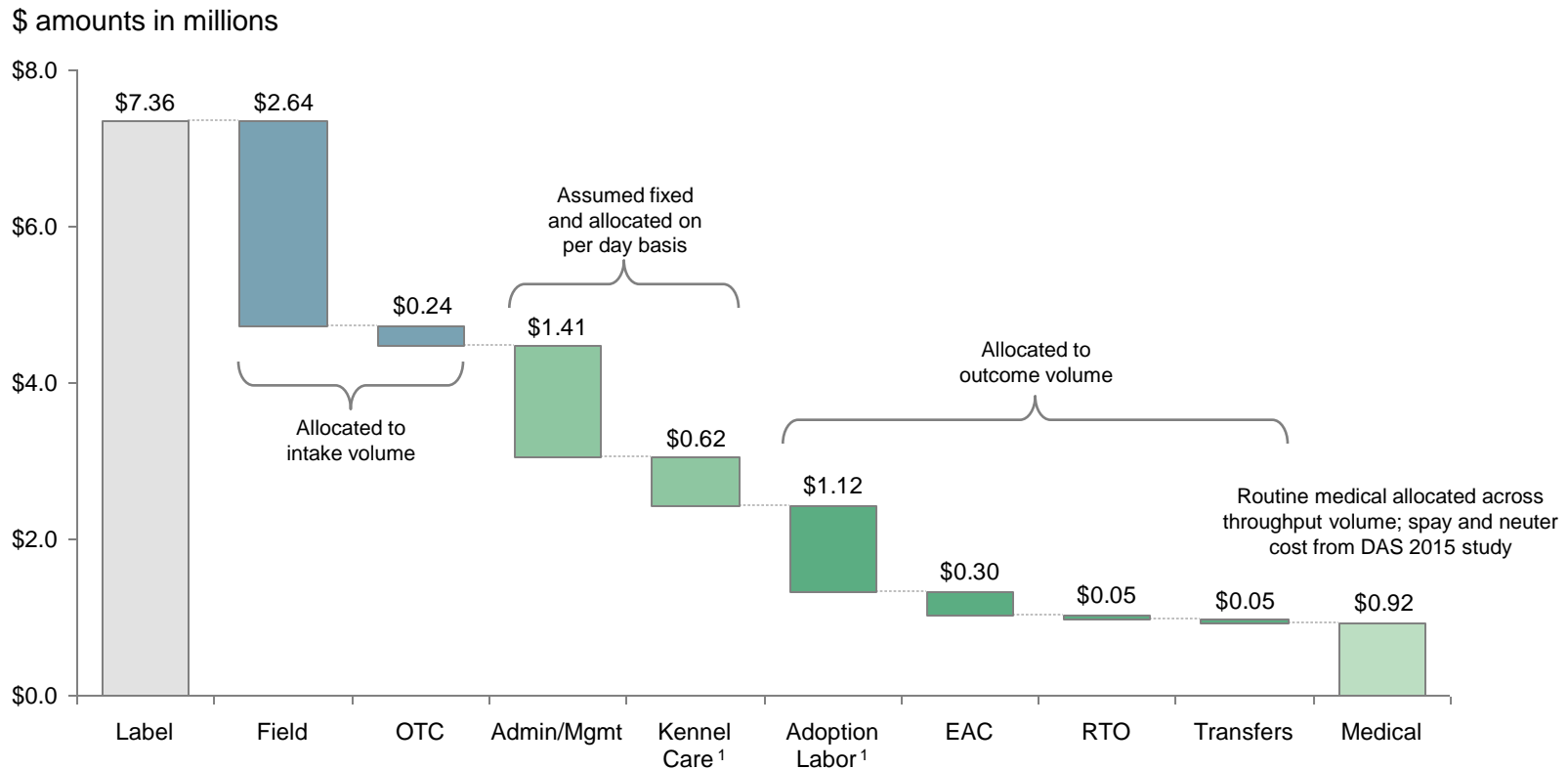
Labor ~70% of DAS expenditures



Note: Fiscal year from October through September of following year
 Source: DAS fiscal year actual expenditure report, BCG analysis



Detail: Labor costs associated with specific activities



1. Assumes 15 minutes (guidelines from UC-Davis study) per kennel per day for sufficient cleaning and dog care. Remaining animal keeper labor assumed needed for adoption efforts
Source: DAS Actual Expenditures, DAS June 2016 organizational structure, Government Salaries Explorer, UC-Davis' "Guidelines for Standards of Care in Animal Shelters", BCG analysis



Backup: Allocated budget and labor expense combined with activity and shelter days used to estimate granular costs

Activity Based Estimates		<u>Annual Expense</u>	<u>Dogs²</u>	<u>Effort % to Dogs</u>	<u>Cost / Dog</u>
	Field ¹		\$2,976,000	9,849	90%
OTC		\$241,000	11,126	90%	\$19
Adoptions – Main		\$1,116,000	5,177	90%	\$194
Adoptions – EAC		\$301,000	1,553	90%	\$174
RTO		\$50,000	2,257	90%	\$20
Transferred		\$50,000	2,794	90%	\$16
Euthanization	Esimates from Dallas Animal Services cost study performed in 2015				\$21
Spay and neuter					\$139
Vaccinations/Antibiotics					\$5

Fixed Costs Allocations		<u>Annual Expense¹</u>	<u>Dog Days¹</u>	<u>Effort % to Dogs</u>	<u>Cost / Day</u>
	Building/Supplies/Maint		\$2,217,000	159,874	90%
Admin/Managment		\$1,413,000	159,874	90%	\$8
Kennel Care		\$624,000	159,874	90%	\$4

1. Field annual expense comprised of \$334,827 of equipment and \$2,641,119 of labor

2. Dogs rounded to nearest hundred

Source: DAS Actual Expenditures, DAS June 2016 organizational structure, Government Salaries Explorer, UC-Davis' "Guidelines for Standards of Care in Animal Shelters", DAS Chameleon database, BCG analysis



Putting it all together: cost drivers identified across intake, operations, and outcome...

Animal Intake		Shelter/Utilization Costs		Outcomes	
<i>Per dog cost</i>		<i>Per day allocation of fixed costs</i>		<i>Per dog/activity cost</i>	
\$272	Field intake ¹	\$12	Building/Supplies ²	\$21	Cost to euthanize ³
\$19	OTC Labor ¹	\$8	Admin/Mgmt Labor ²	\$139	Cost to spay and neuter ³
		\$4	Kennel care labor ²	\$194	Westmoreland adoption labor ⁴
				\$174	EAC Adoption labor ⁴
				-\$34	Adoption revenue ⁵
				\$20	RTO labor ⁴
				\$5	Transfer labor ⁴

For illustrative and directional purposes only.

All figures based on Fiscal Year 2015 expenditures, dog intake, and outcomes.

Go forward actual costs may differ from those shown here.

Calculation methods: 1. Associated labor/equipment costs divided by annual intake for respective channel. 2. Allocated costs divided by total number of dog kennel days during trailing twelve months. 3. 2015 DAS cost study. 4. Associated labor costs divided by annual outcomes for respective channel. 5. Calculated from Chameleon data
 Source: Estimates based on DAS FY 14/15 actual expenditures, DAS cost study, DAS June 2016 organizational structure, DAS Chameleon database, and BCG analysis



...where total cost per dog to DAS ranges from \$130-\$940 depending on cost drivers

Estimated Cost to DAS Per Dog by Intake/Outcome Channel

	<u>Euthanized</u>	<u>Adopted - Main</u>	<u>Adopted - EAC</u>	<u>Transferred</u>	<u>RTO</u>	<u>Avg Cost</u>
Field	\$447	\$942	\$850	\$625	\$429	\$578
OTC	\$133	\$560	\$468	\$288	\$198	\$320
Avg Cost	\$298	\$693	\$601	\$427	\$354	\$441

Modeled Annual vs. Actual Expenditures

<u>Source</u>	<u>Expenditures</u>
Fiscal Yr 2015	\$10.4MM
Modeled	\$9.5MM
% of actual	90%

Remaining 10% of spend for cats/other animals

Example:

\$ 19	OTC Intake
\$ 84	3.5 days @ \$24/day
\$ 3	2% S/N at \$139 per S/N
\$ 5	Antibiotics/Medical
\$ 21	100% Euth. at \$21 per Euth.
\$ 133	Total cost to DAS for OTC Euthanized

Example:

\$ 272	Field Intake
\$ 343	14.6 days @ \$24/day
\$ 194	Allocated labor cost per adoption
\$ 5	Antibiotics/Medical
\$ 120	86% S/N at \$139 per S/N
\$ 942	Total cost to DAS for Field Adopted
\$ -34	Adoption revenue 100% adopted at ~\$34 ¹
\$ 908	Total cost to City for Field Adopted

Figures heavily influenced by volumes as fixed costs are allocated across current volume of dogs

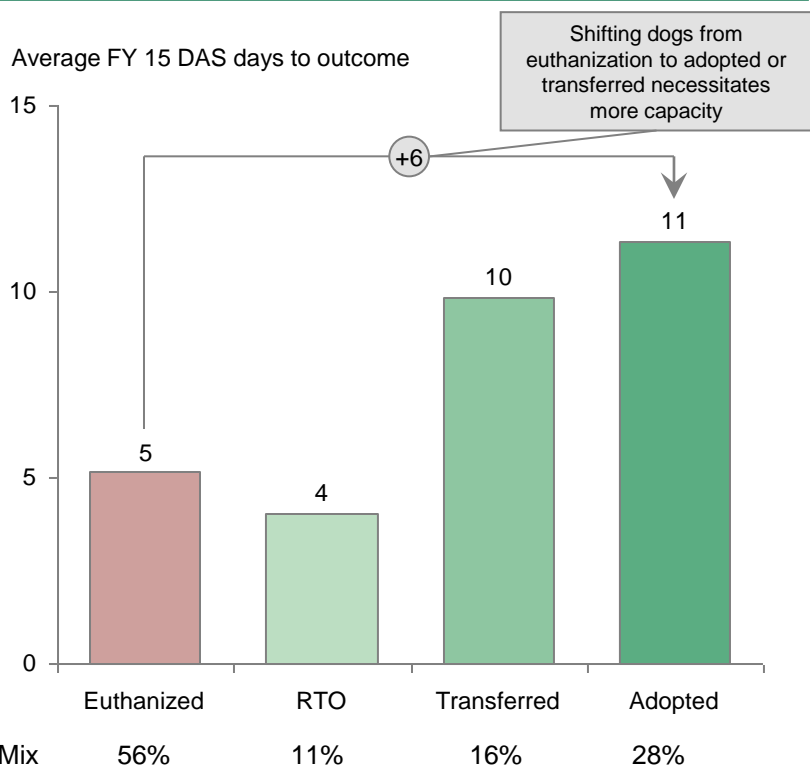
1. Adoption revenue from DAS is returned to the general fund

Source: Estimates based on DAS FY 14/15 actual expenditures, DAS cost study, DAS June 2016 organizational structure, DAS Chameleon database, and BCG analysis

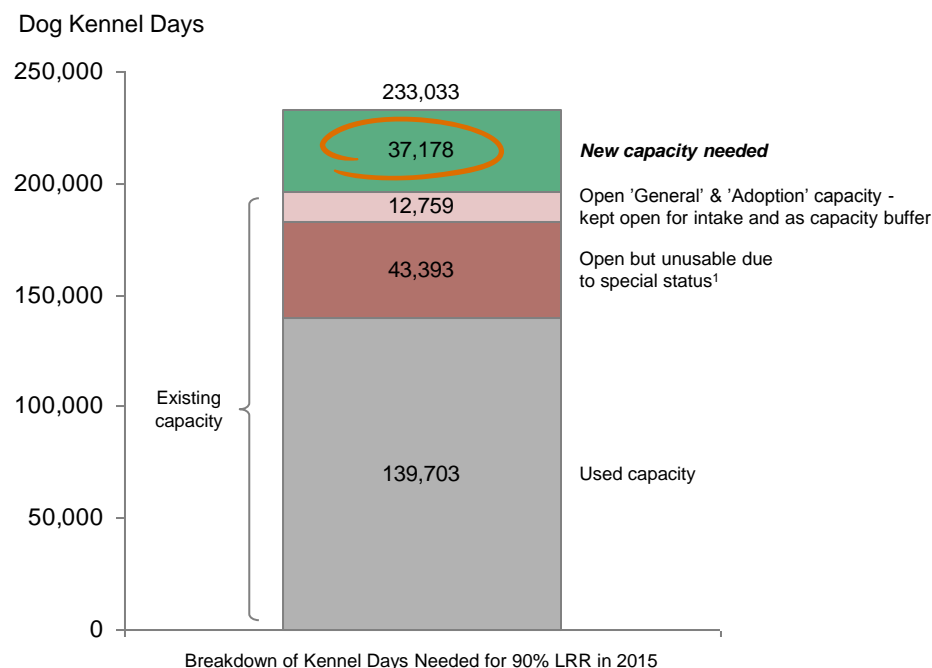


Achieving higher 90% LRR requires faster outcomes or more space

As fewer dogs are euthanized, average length of stay may increase



Today (FY 2015) DAS 90% utilized, reaching 90% LRR not feasible at current length of stay



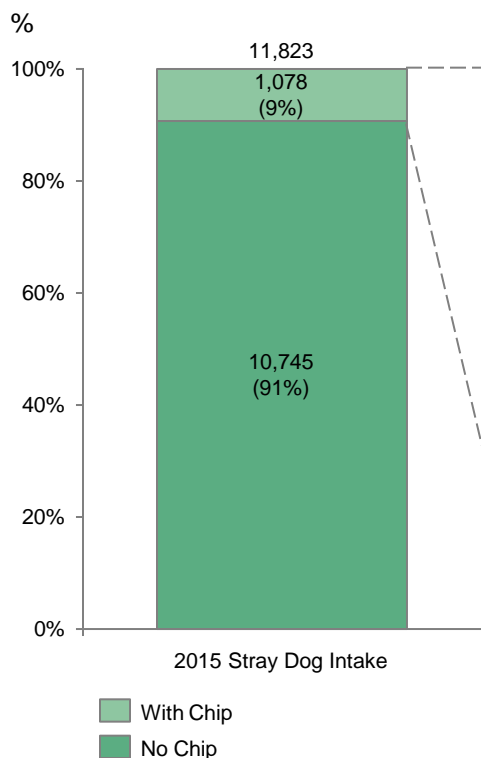
In FY 2015, reaching a 90% LRR would have required ~37,000 more kennel days – need solutions that speeds up throughput

1. Includes contagious, injured, isolated, protective custody, and quarantine; Note: Assumes fixed costs allocated over more days while per dog cost estimates stay the same. Source: Estimates based on DAS FY 14/15 actual expenditures, DAS cost study, DAS June 2016 organizational structure, DAS Chameleon database, and BCG analysis

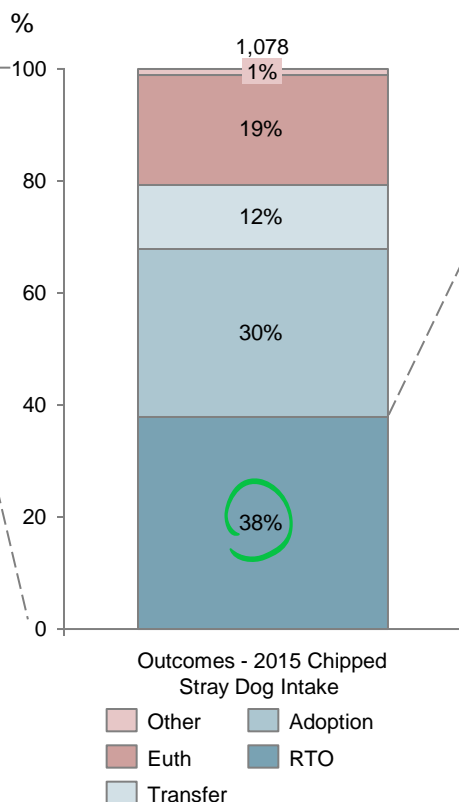


38% of stray, chipped dog intake RTO, with 97% RTO in 10 days

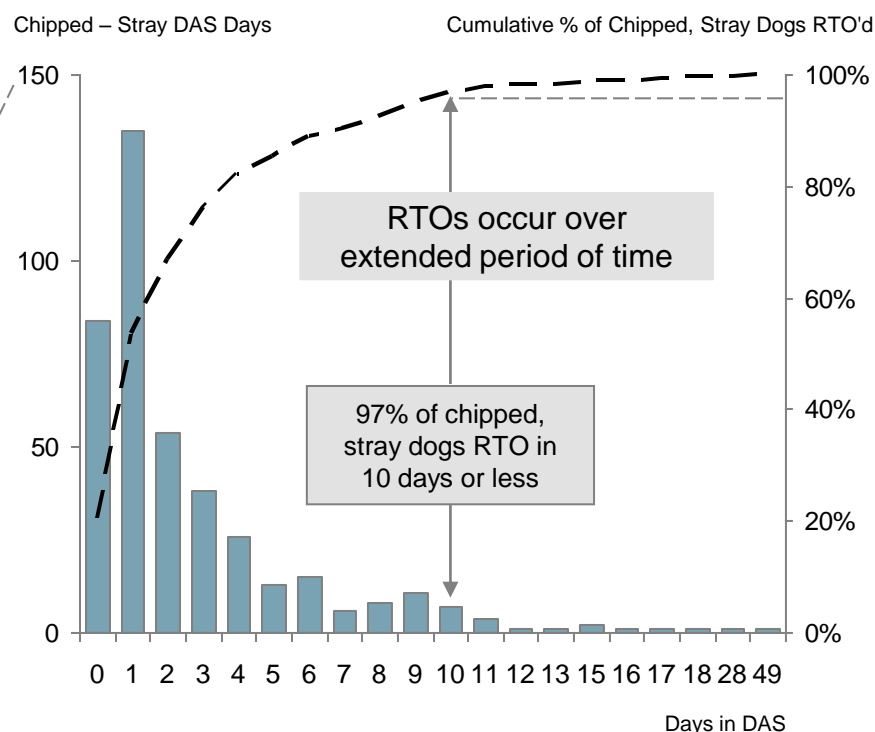
9% of stray dog intake chipped...



...80% realize live outcome...



...97% of stray, chipped RTO occur within 10 legal hold



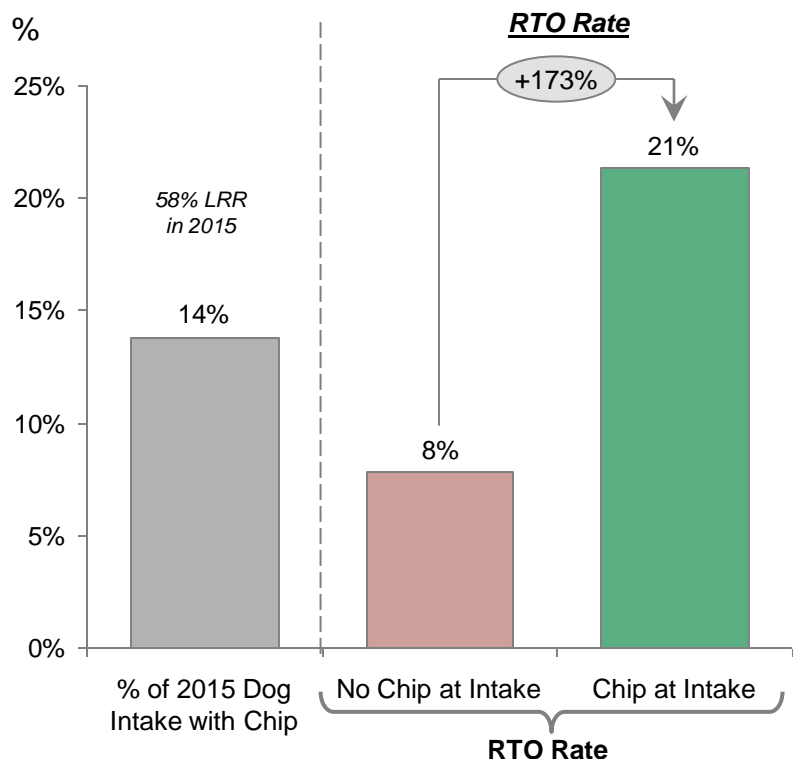
Shortening legal hold is not a black or white decision as RTOs "trickle in" up to and past legal hold deadline

Note: Data represented for calendar year 2015
 Source: DAS Chameleon database, BCG analysis
 20160826_BCG_DallasDog_WorkingMaterials_vPublic.pptx

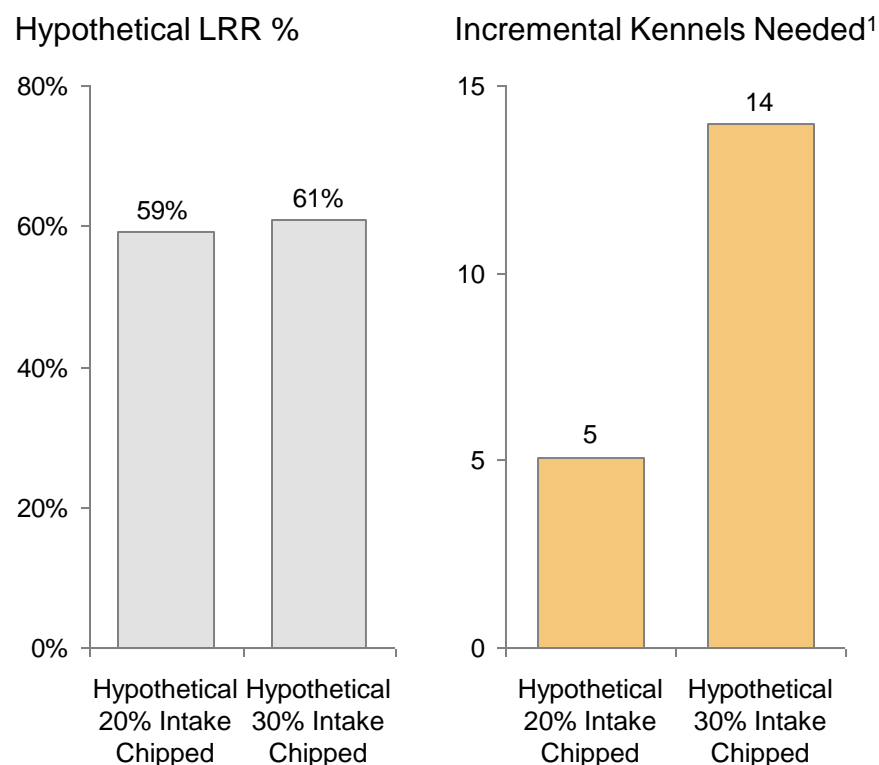


Microchipped dogs more likely to be RTO, but legal hold requirements for chipped dogs necessitates more kennels

14% of current dog intake chipped, dogs with microchips much more likely to be RTO...



...however, as chipped intake rises, minimal LRR impact seen and increased capacity required



Initiatives increasing population microchipped should be weighed against increased operational strain for DAS

1. If animal is licensed, tattooed, or microchipped, it must be held for 10 days. DAS must hold an animal for 3 days if it is unlicensed or otherwise unidentifiable. Shifting dogs from non-chipped to chipped increases length of stay for dogs not RTO (e.g., adopted, transferred, euthanized)

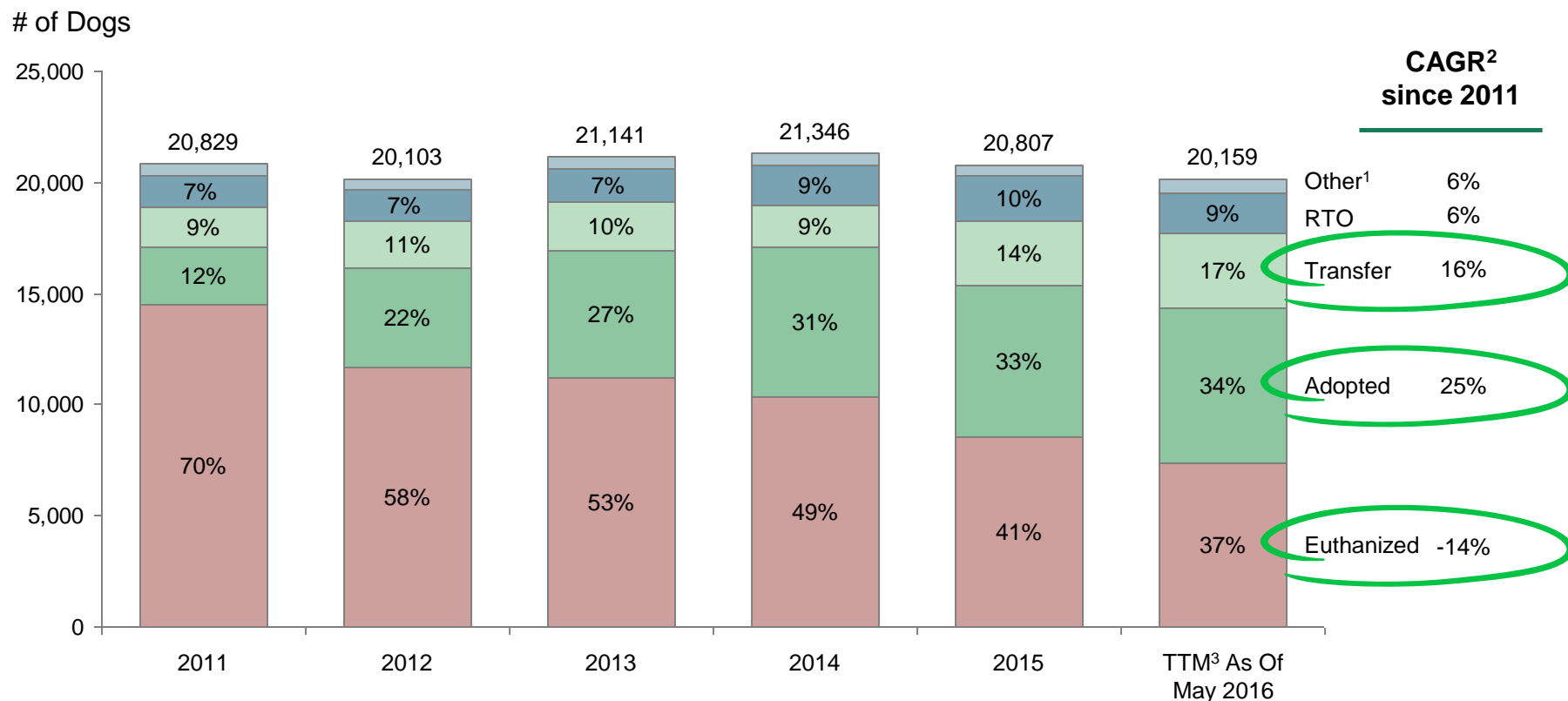
Source: DAS Chameleon database and BCG analysis



Today ~60% of dogs achieve positive outcomes

In past five years, adoptions have grown 25% annually, transfers +15% amid flat volumes

Outcomes for Dogs Entering DAS



Each year DAS has increased live outcomes

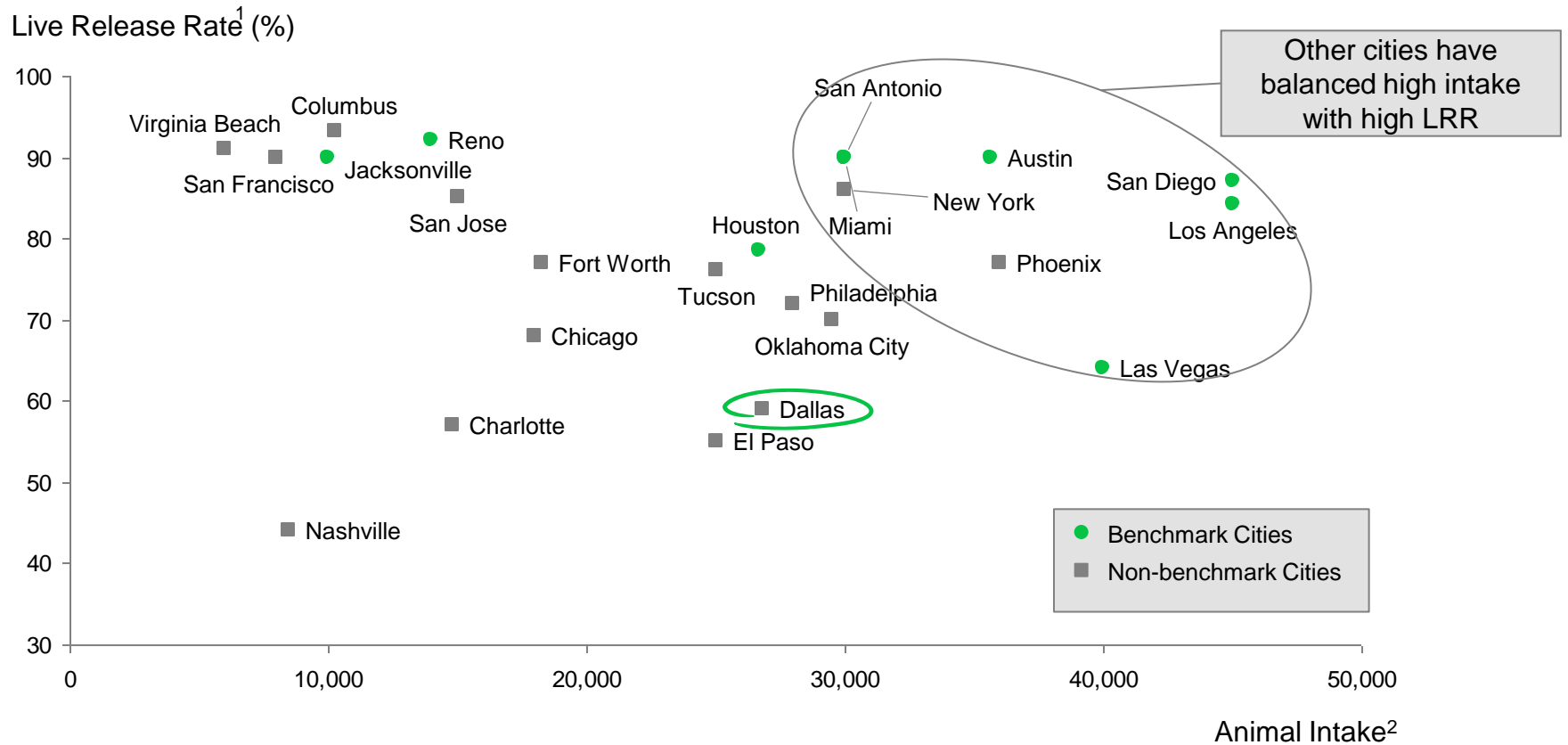
1. Other includes animals that died in or were lost at the shelter including those that were dead on arrival (DOA). 2.CAGR = compound annual growth rate. 3. TTM = trailing twelve months.

Source: DAS Chameleon database, BCG analysis



High intake does not necessarily lead to low LRR...

Animal intake versus LRR



1. Live release rates correspond to either 2014 or 2015 depending on figures most recently reported by each shelter; 2. Intake includes all animals; Note: Live release rates correspond to either 2014 or 2015 depending on figures most recently reported by each shelter. Dallas figures are for DAS only. Remaining data represented for municipal shelters only

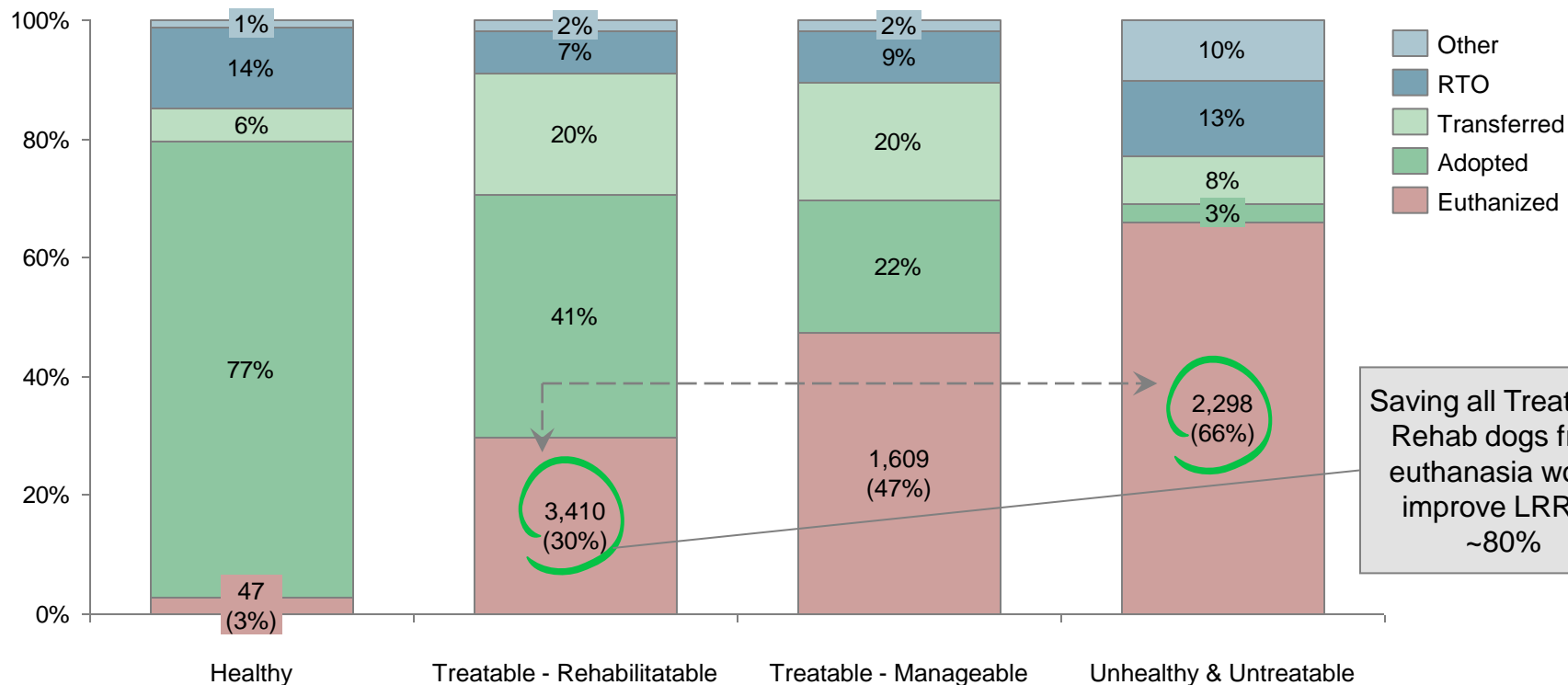
Source: Respective websites of each city and BCG analysis



Relationship observed dog's health and outcome

Nevertheless, more 'Treatable-Rehab' dogs are euthanized than 'Untreatable' given scale

% of TTM as of May 2016 Dog Intake (health category based on intake categorization)



Saving all Treatable-Rehab dogs from euthanasia would improve LRR to ~80%

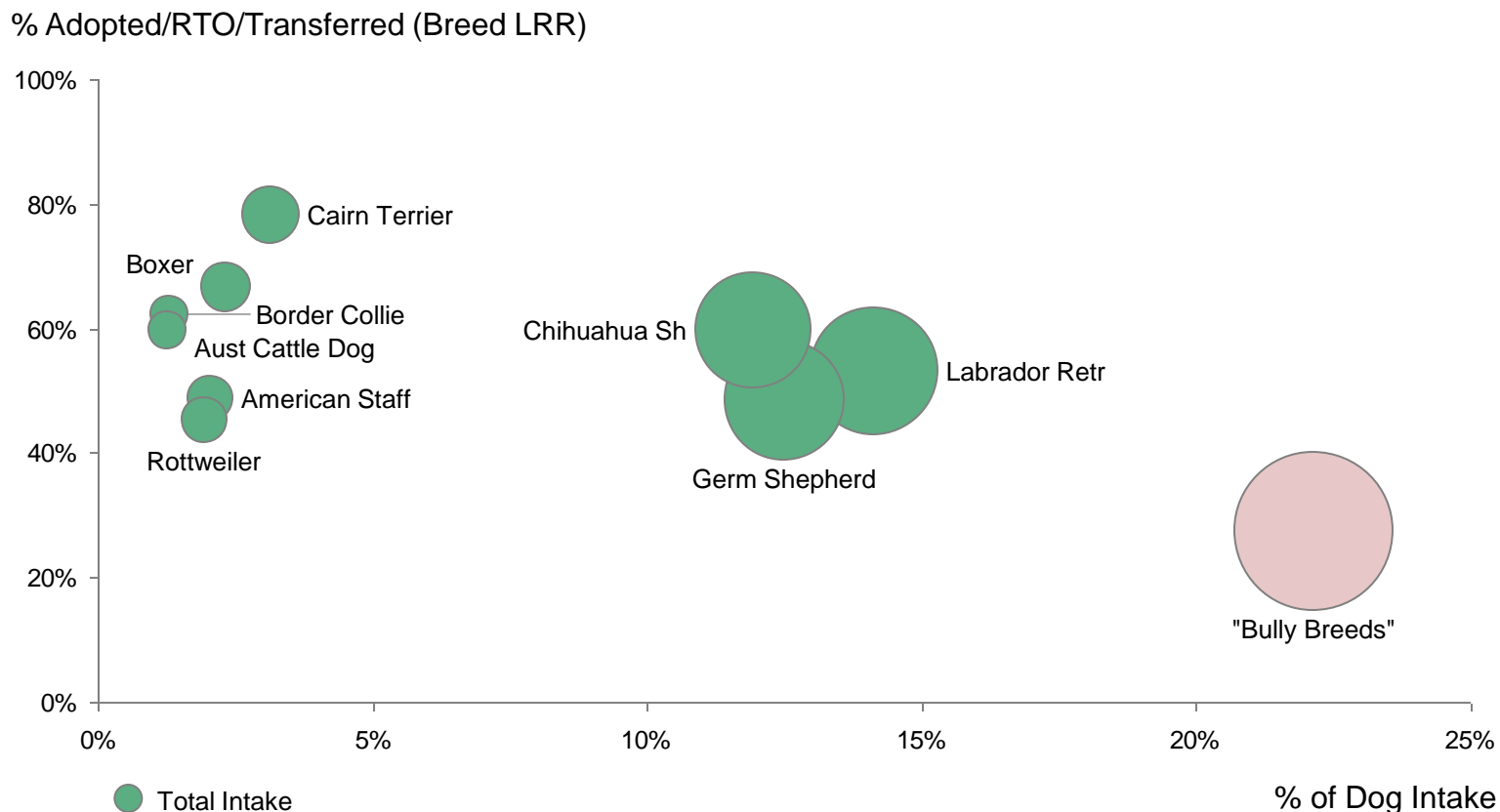
Totals	1,784	11,497	3,393	3,485
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1. Other includes dead on arrival, died in shelter, missing, or no outcome categorization specified in data; Note: TTM = trailing twelve months; Asilomar health assessment taken upon intake to the shelter; Source: DAS Chameleon database, BCG analysis



"Bully breeds" most likely to be euthanized – and also largest share (~22%) of dog intake

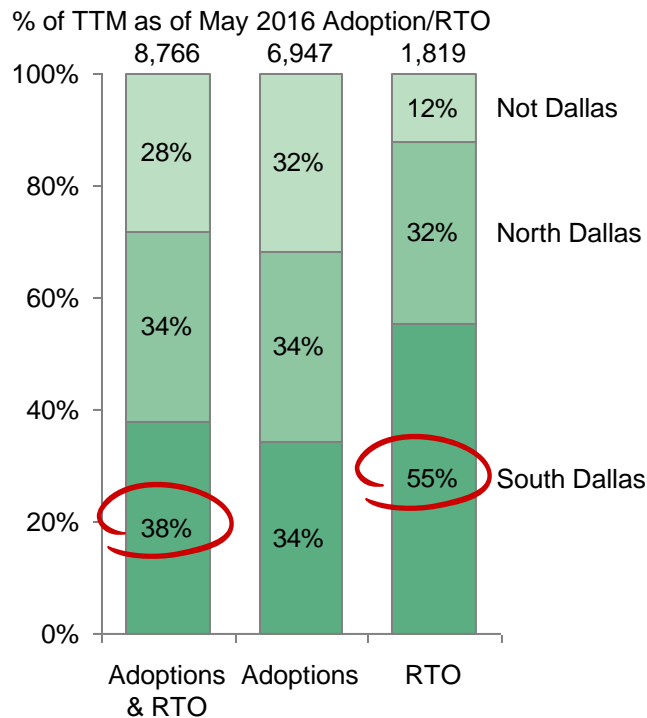
Top 10 dog breeds for DAS 2014 & 2015 intake



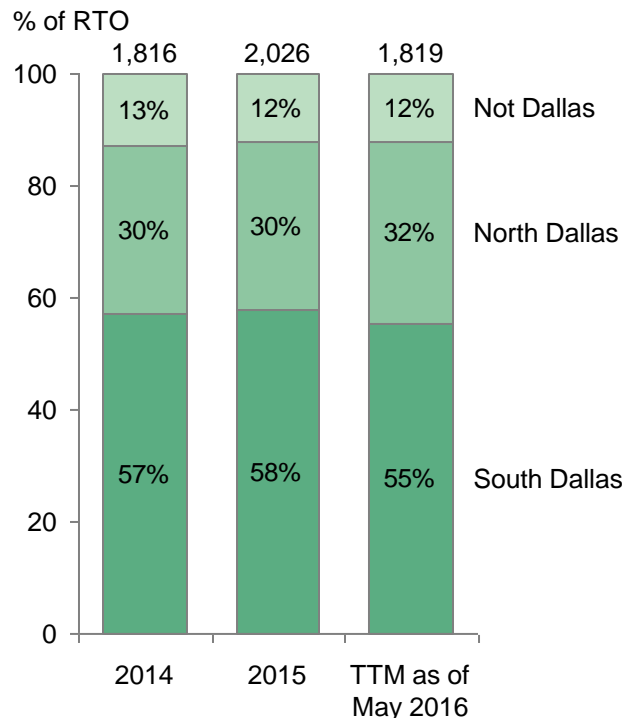


Adoptions and RTOs place >50% of dogs in southern Dallas

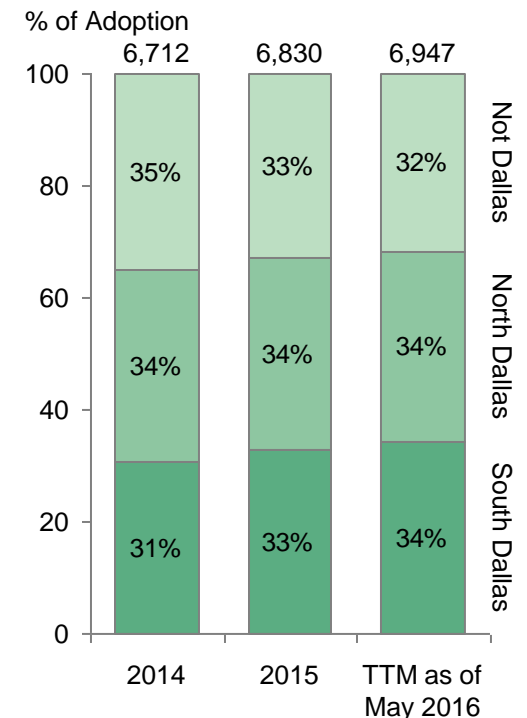
Most adoptions/RTOs to southern Dallas



RTO % to southern Dallas has declined



Adoption % to southern Dallas has increased



Note: TTM = trailing twelve months; Note: Used only outcomes that were coded with addresses. I-30 used to separate North from southern Dallas. North Dallas includes districts 2,6,9,10,11,12,13,14. southern Dallas includes districts 1,3,4,5,7,8. Outcome mix for dogs already left DAS during TTM assumed to be the same for dogs that have not left shelter yet during TTM period

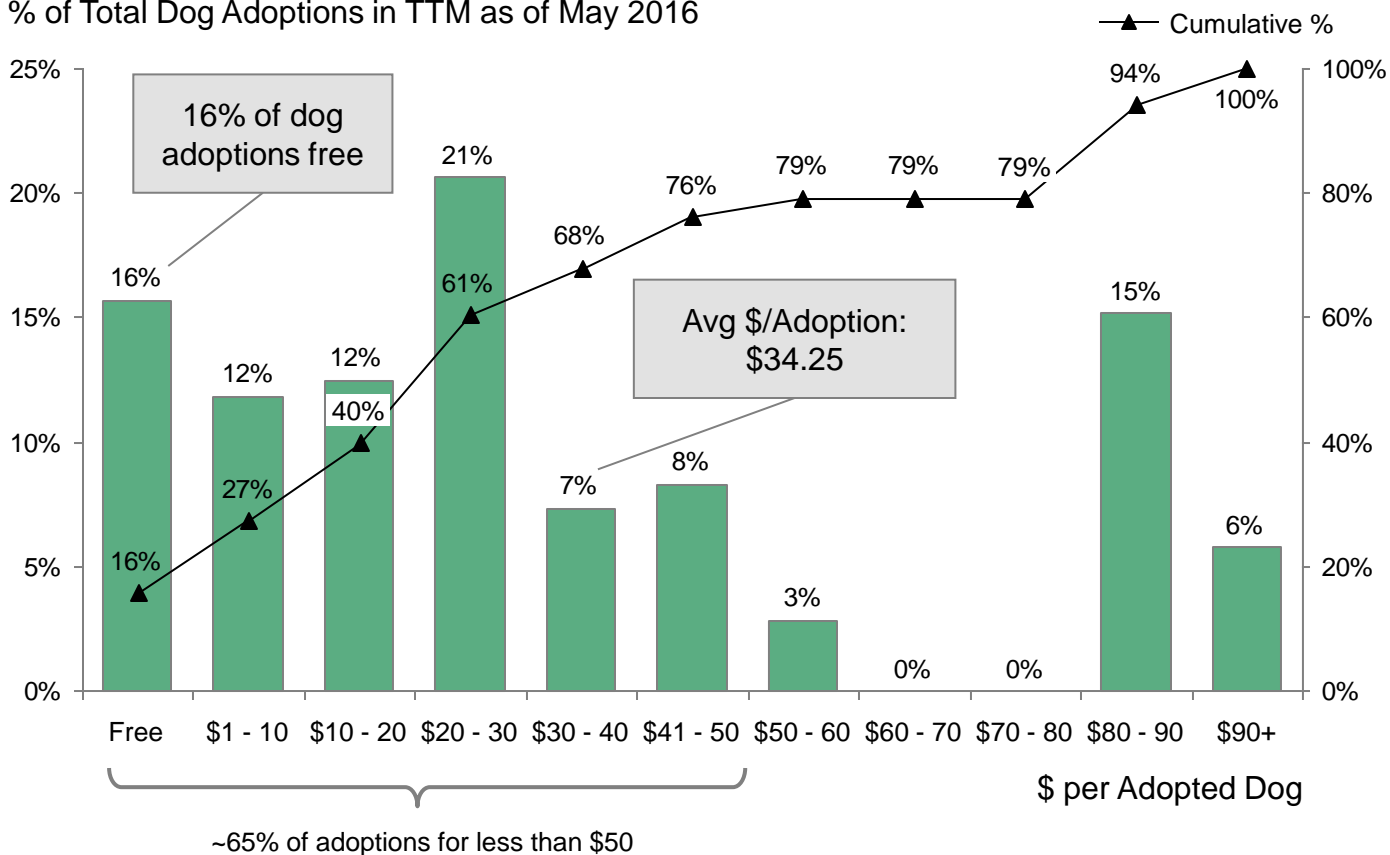
Source: DAS Chameleon database, BCG analysis



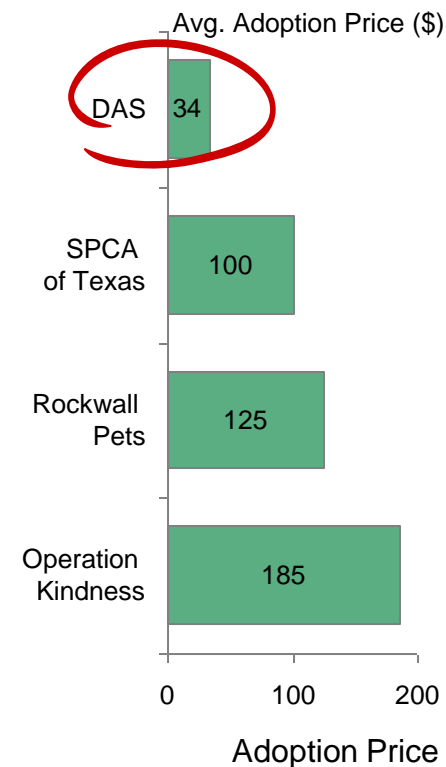
DAS charges, on average, \$34.25 per dog adoption—less than large pet rescues in the DFW area

DAS distribution of adoption prices

% of Total Dog Adoptions in TTM as of May 2016



Approximate price per dog adoption

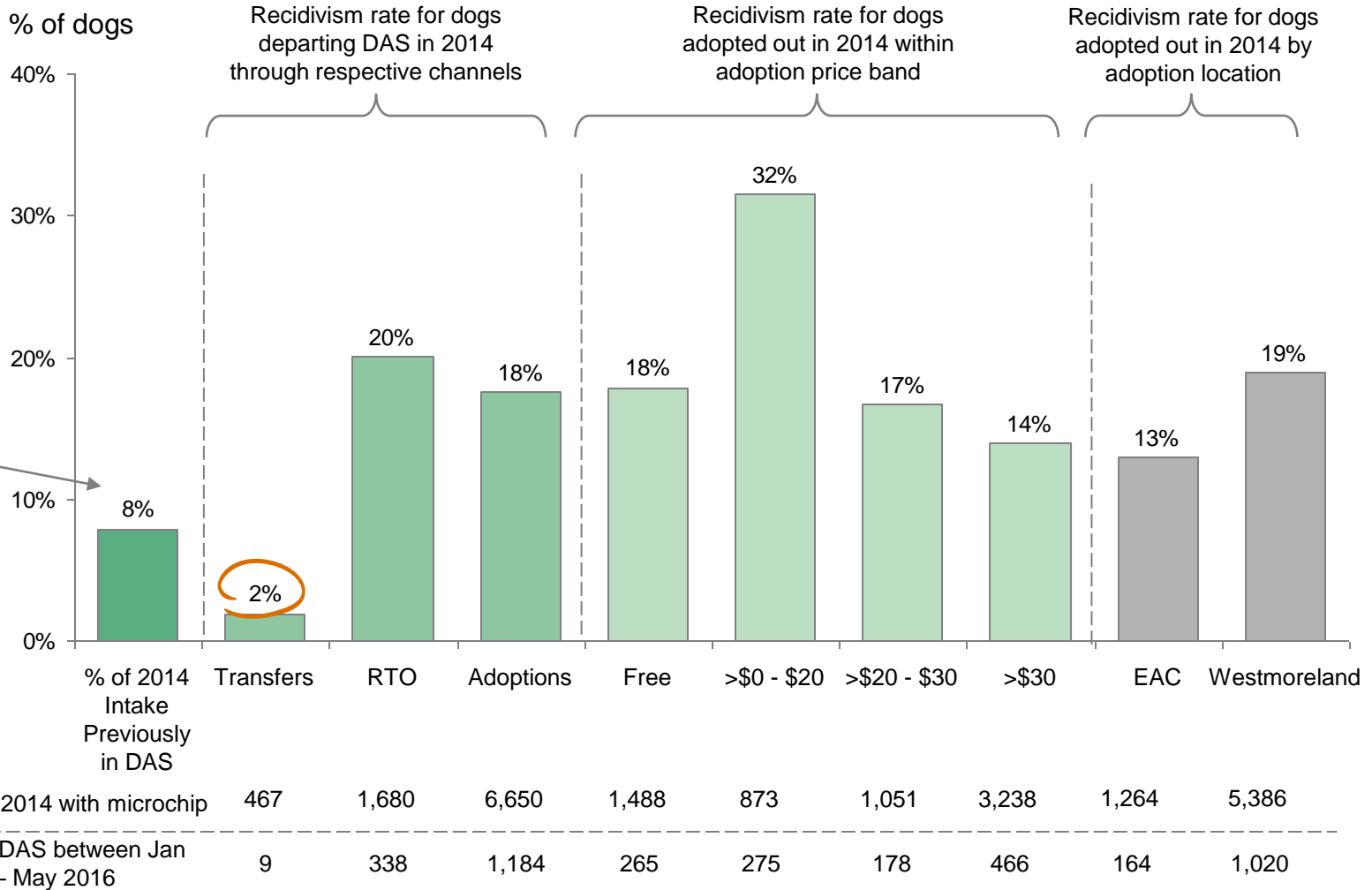


Note: TTM = trailing twelve months
 Source: DAS Chameleon database and rescue websites, BCG analysis
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Return rate by type of adoption

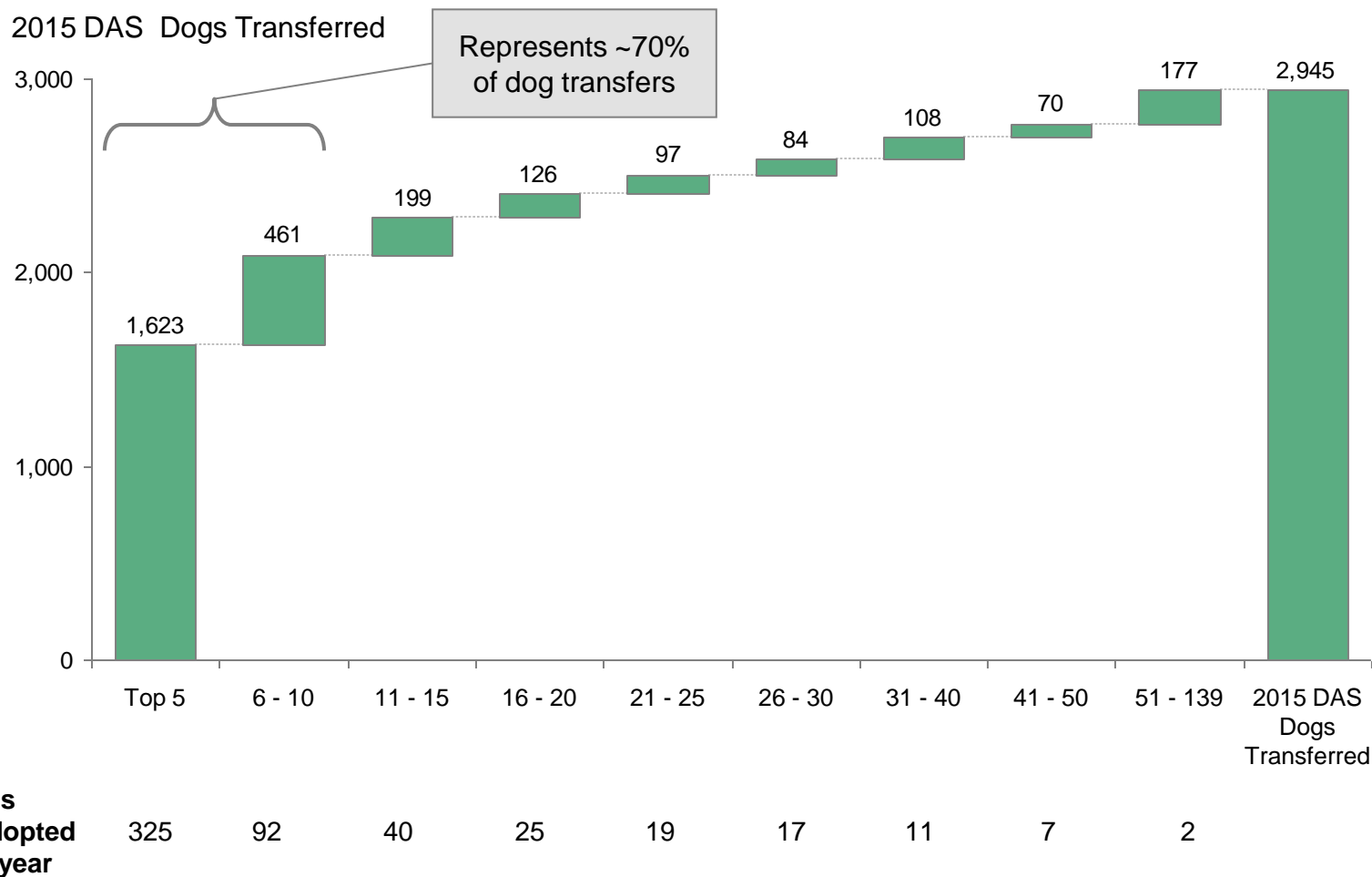
San Diego Humane Society recidivism rate of intake was ~4% prior to increasing adoption efforts rising to ~8% after increase adoptions; anecdotally other cities have rates ~6% to ~10%



Note: Data from dog 2014 intake into and 2014 dog departures from DAS
 Source: DAS Chameleon database, BCG analysis



Top 10 partners account for ~70% of volume, yet ~140 total transfer partners received dogs from DAS in 2015¹



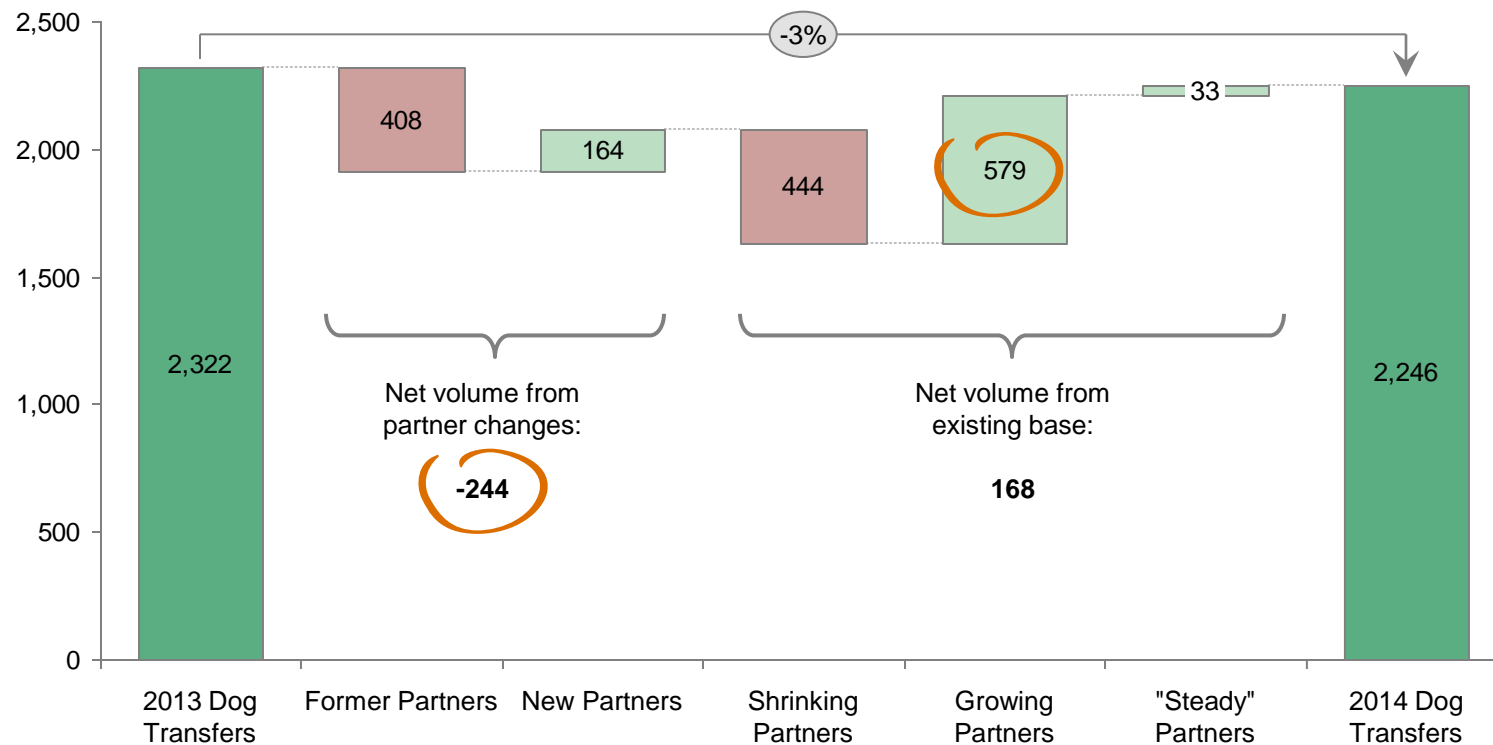
1. Among smaller volume rescues are organizations that focus only on a specific breed or have much smaller kennel capacity than other rescues

Source: DAS Chameleon database, BCG analysis



From '13 to '14, ~50 partners stopped transferring from DAS, but largely offset by growth from ~25 large partners

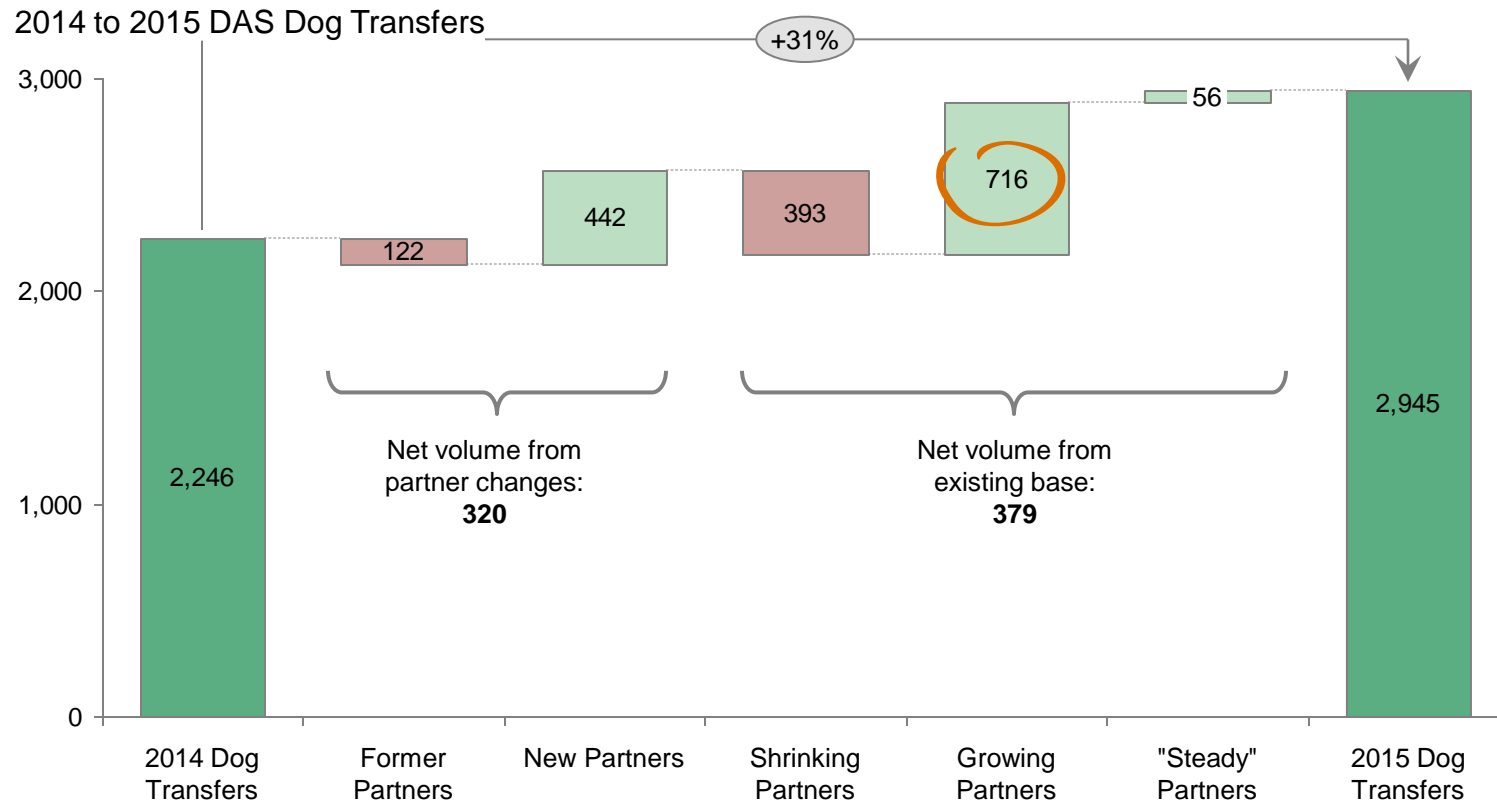
2013 to 2014 DAS Dog Transfers



# Partners	123	50	50	24	25	20	119
Avg # Dogs	18.9	8.2	3.3	17.3	41.1	31.9	18.9



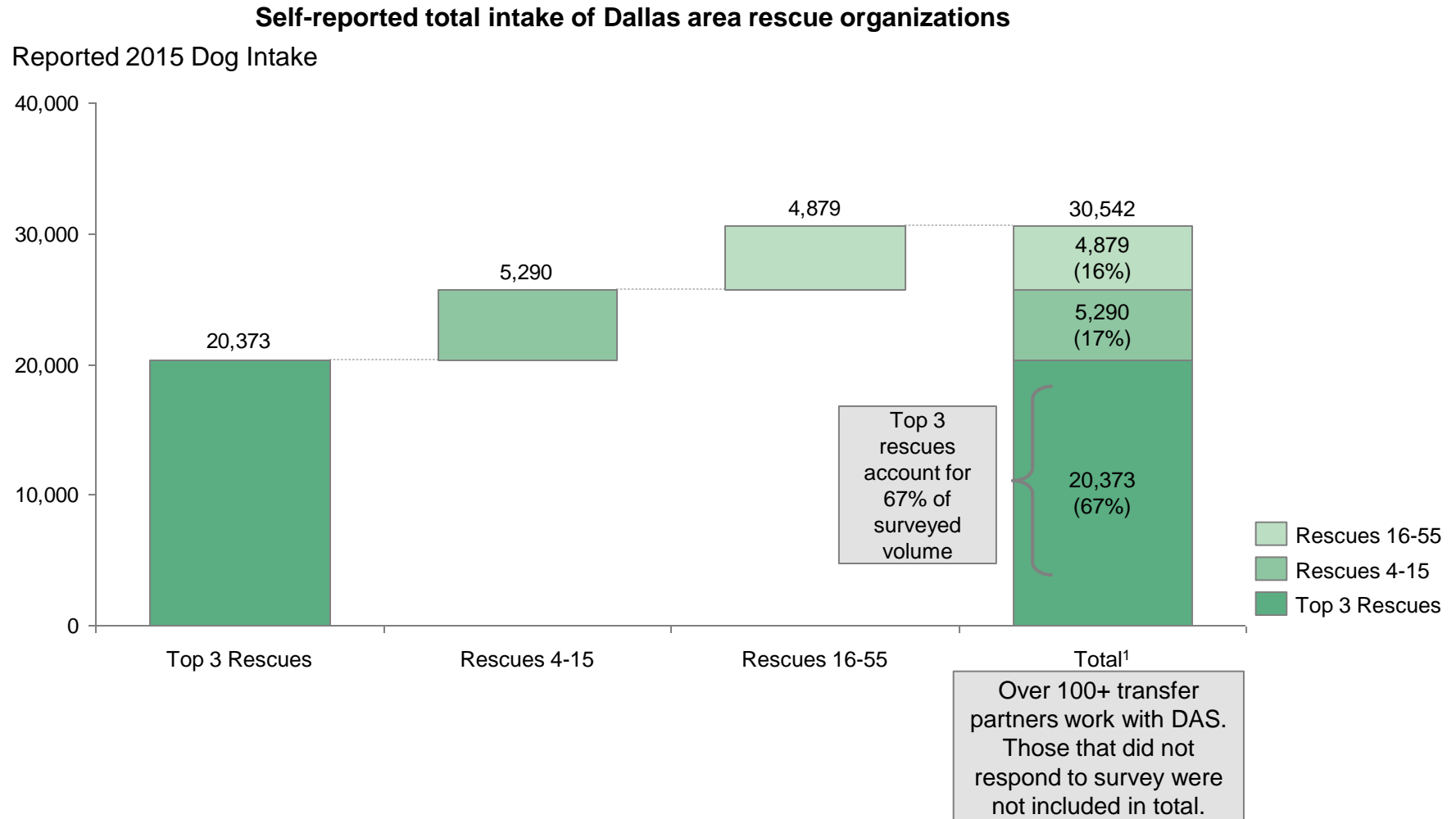
From '14 to '15 DAS increased transfers 31% through new partners and partner expansion, despite ~50 'lost' partners



# Partners	119	51	71	22	30	16	139
Avg # Dogs	18.9	2.4	6.2	21.6	41.6	48.7	21.2



Dallas rescue organization landscape concentrated with large organizations rescuing majority of dogs



1. Includes all rescue organizations that took the Rescue and Animal Organization Survey; Note: Gini coefficient is .76; Note: Question: Approximately how many dogs did your organization take in during 2015? (n=58)

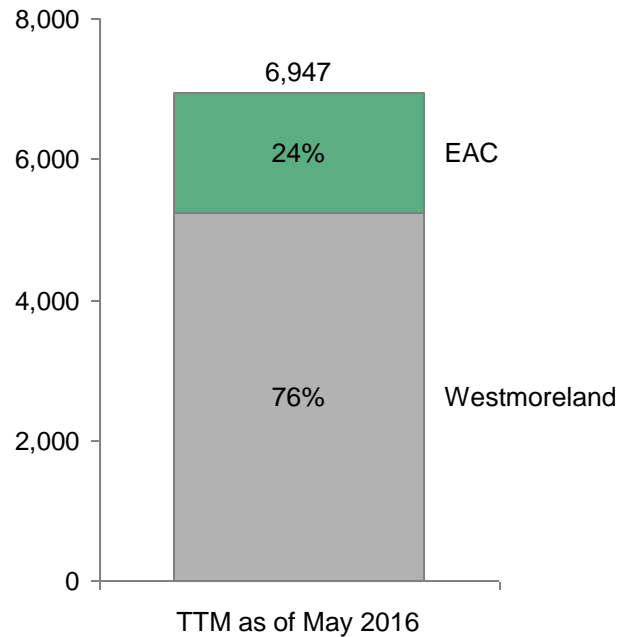
Source: Rescue and Animal Organization survey, BCG analysis



EAC accounts for ~25% of DAS dog adoptions

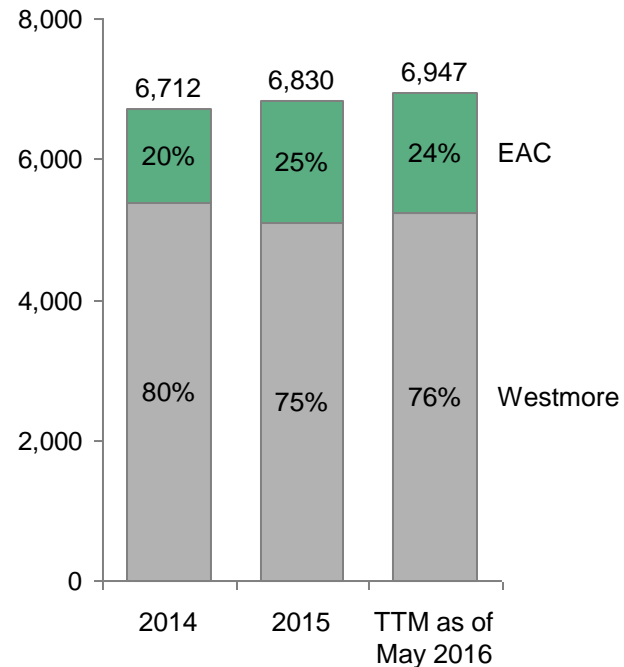
~25% of DAS adoptions placed by the EAC

DAS Adoptions



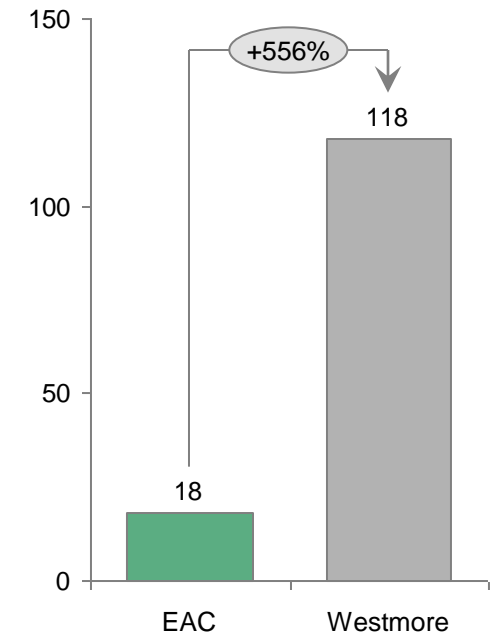
EAC >20% of adoptions since opening in fall 2013

DAS Adoptions



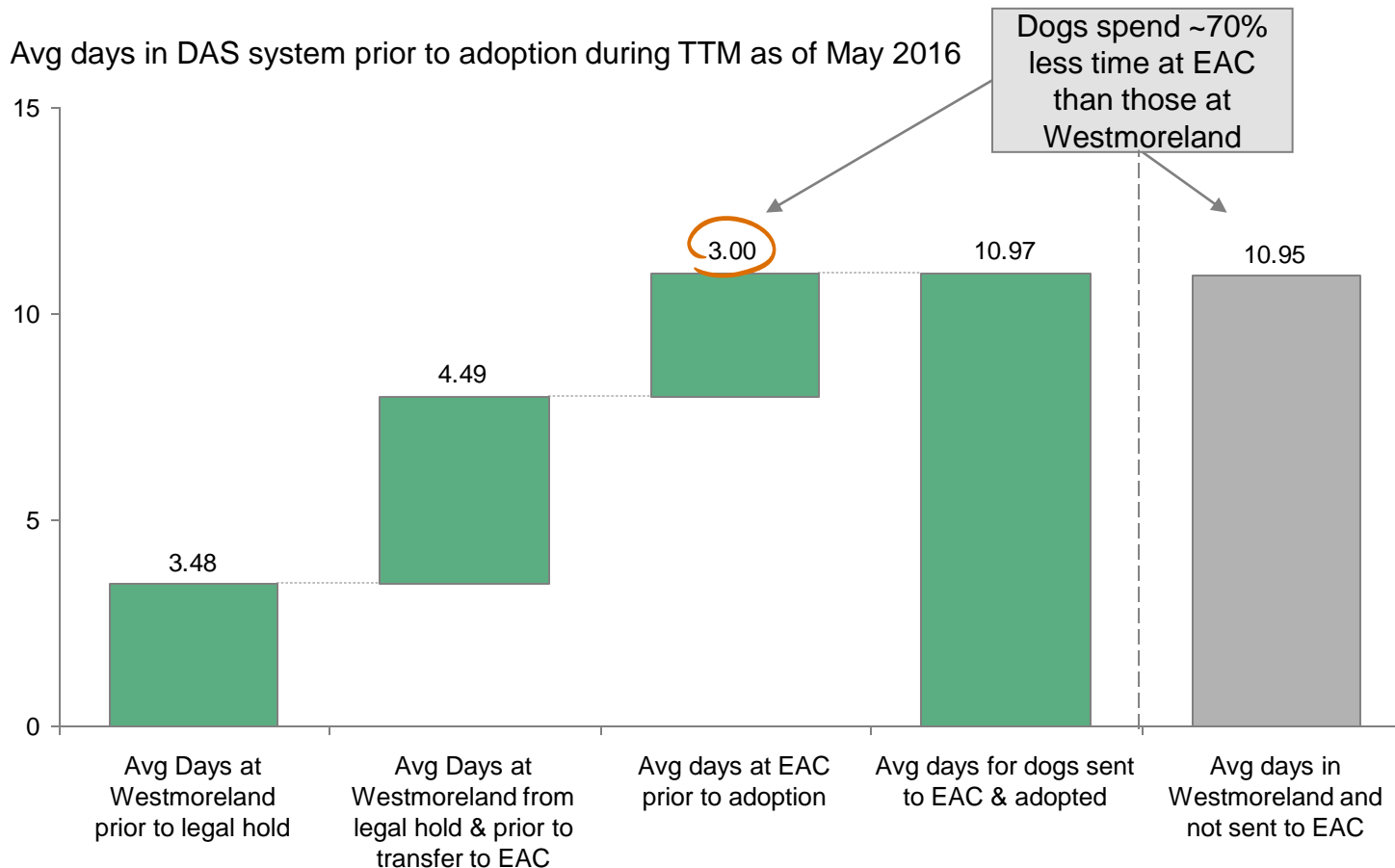
Main location has ~6X dog adoption kennels

Adoption Dog Kennels





Dogs adopted through EAC have similar length of stay as other dogs, but are adopted quickly once at EAC

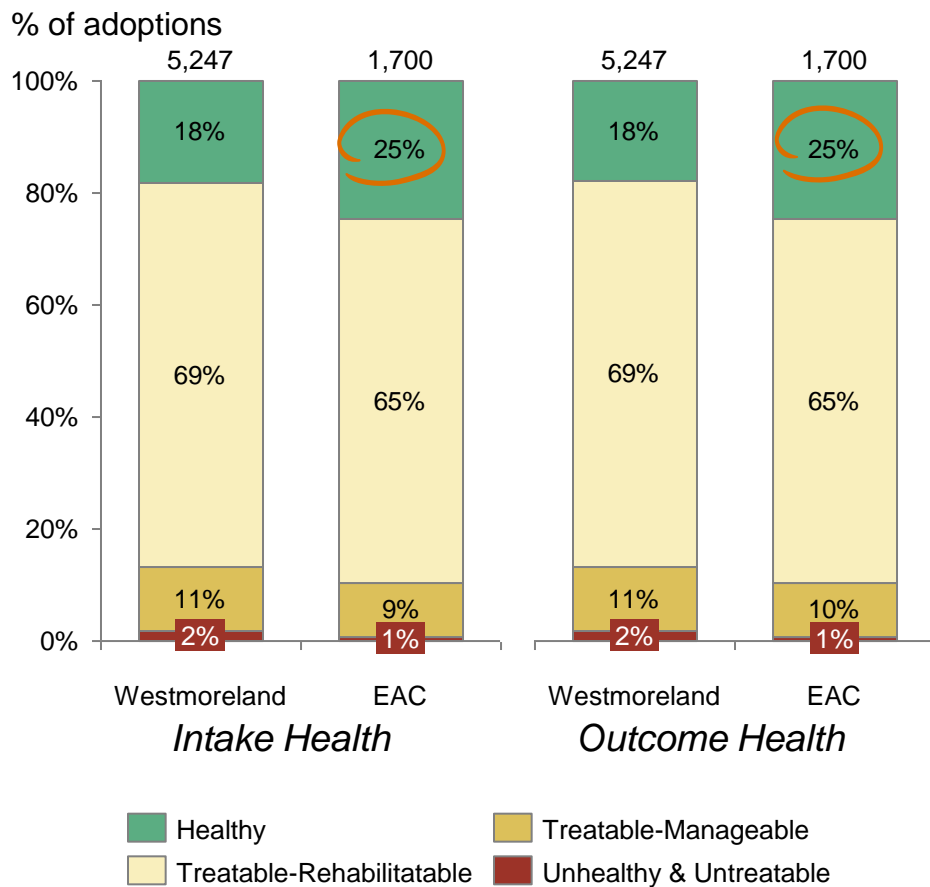


Could moving dogs to EAC sooner reduce length of stay and thereby increase shelter capacity?

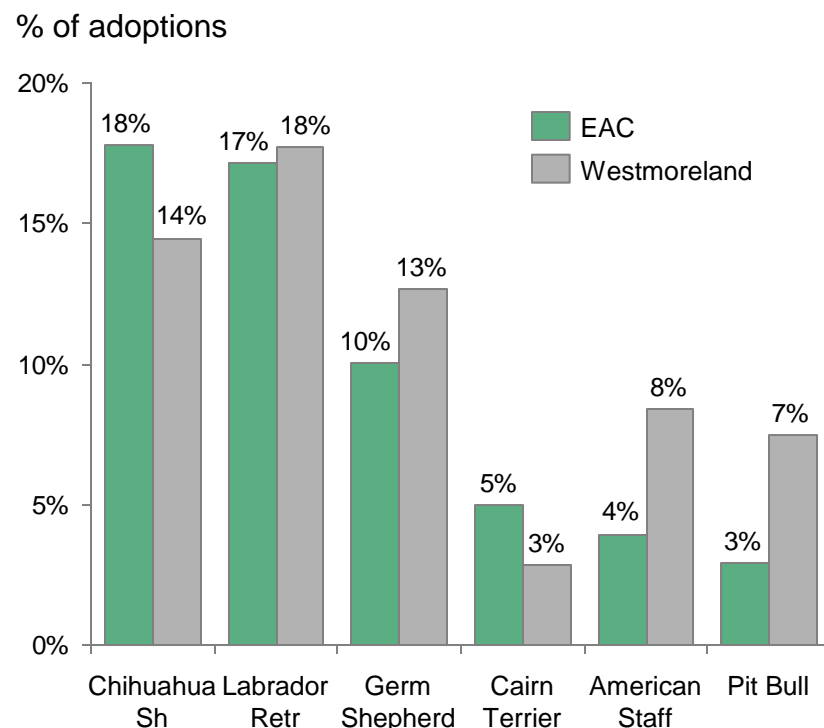


Dogs sent to EAC slightly healthier, with similar breeds most likely to be adopted at EAC or Westmoreland

Dogs adopted from EAC are healthier than dogs adopted from Westmoreland



EAC and Westmoreland adoptions have the same top 6 dog breeds

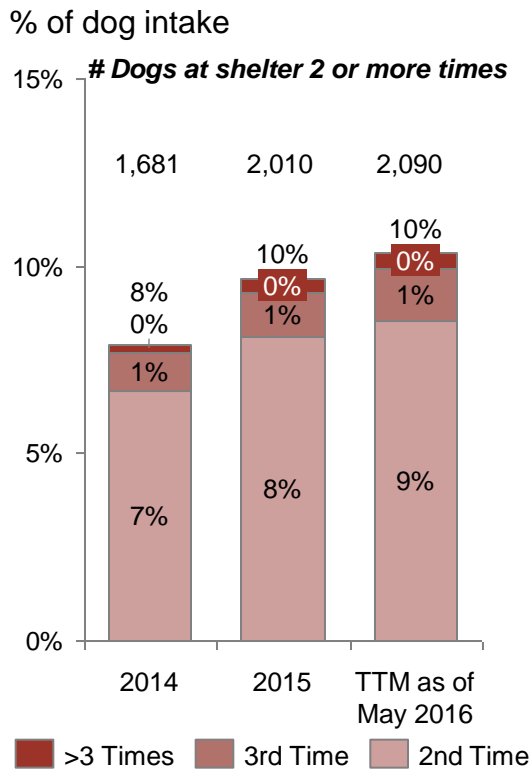




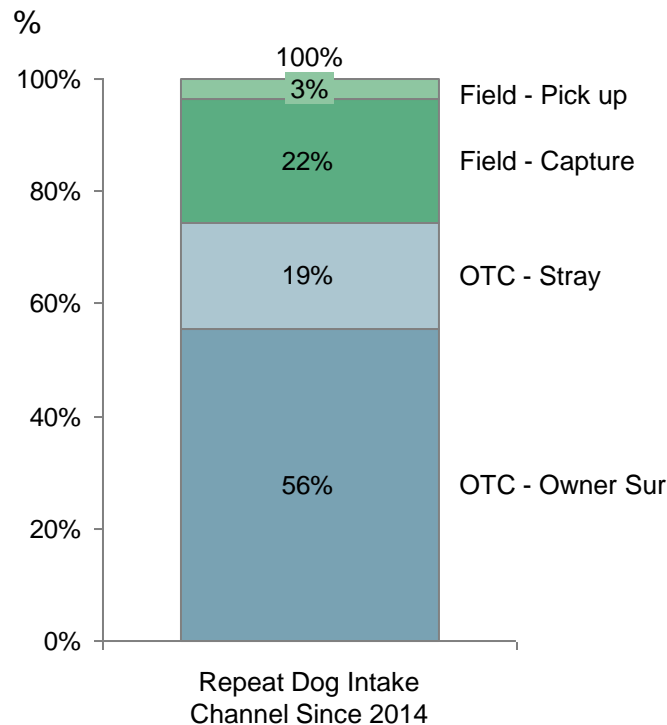
~10% of DAS dog intake has previously gone through DAS

Majority of repeat dogs are OTC owner surrenders and were adopted out after prior stay

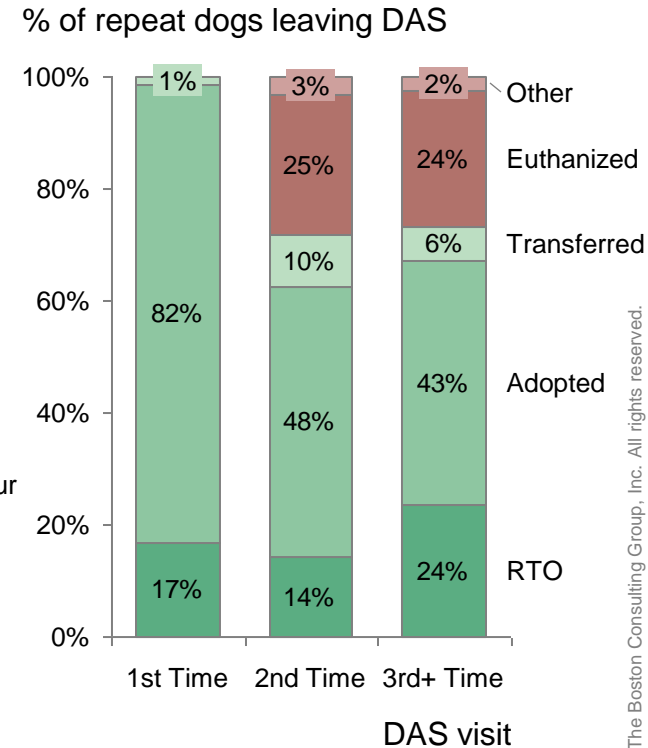
~10% of dog intake from dogs previously in DAS...



...75% of repeat dogs are brought back OTC...



...most were adopted out after previous stay





'Clear The Shelter' (CTS) is a coordinated event held once a year to drive animal adoptions

CTS has been held each summer since 2014 and originated in Dallas

Initial CTS held on August 16, 2014

- DAS adopted 152 dogs & cats

Second CTS held August 15, 2015

- DAS adopted 198 dogs & cats

Third CTS held July 23, 2016

- DAS adopted 264 dogs & cats

Adoption fees waived during CTS



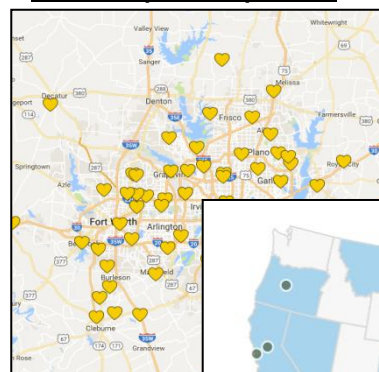
Numerous animal shelters and rescues participate across the nation

Over 50 participants in Dallas

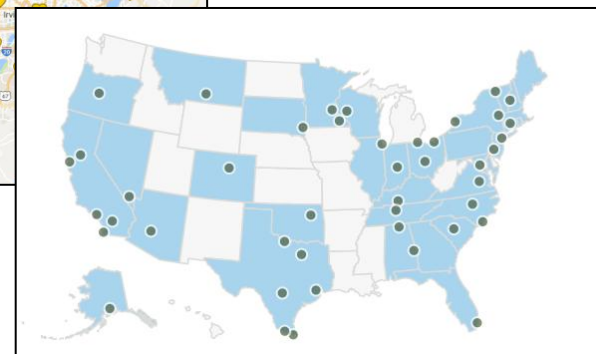
Participants from nearly every major city across the United States

- Nearly 700 shelters across the country

Dallas participants



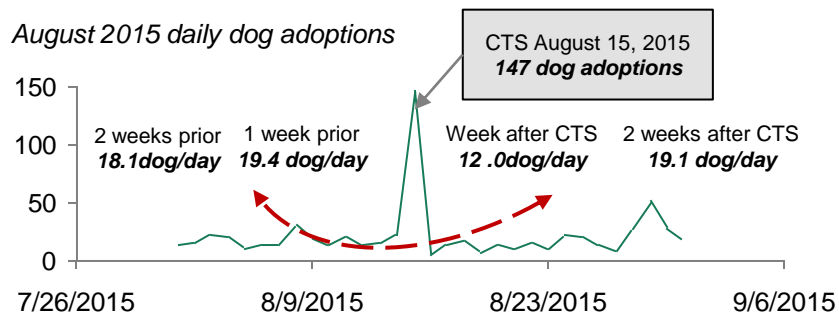
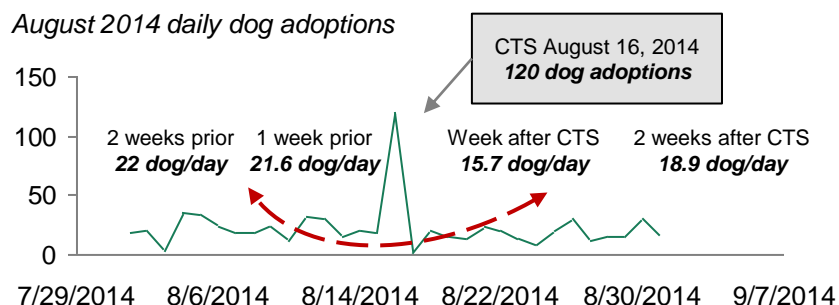
Cities with participants



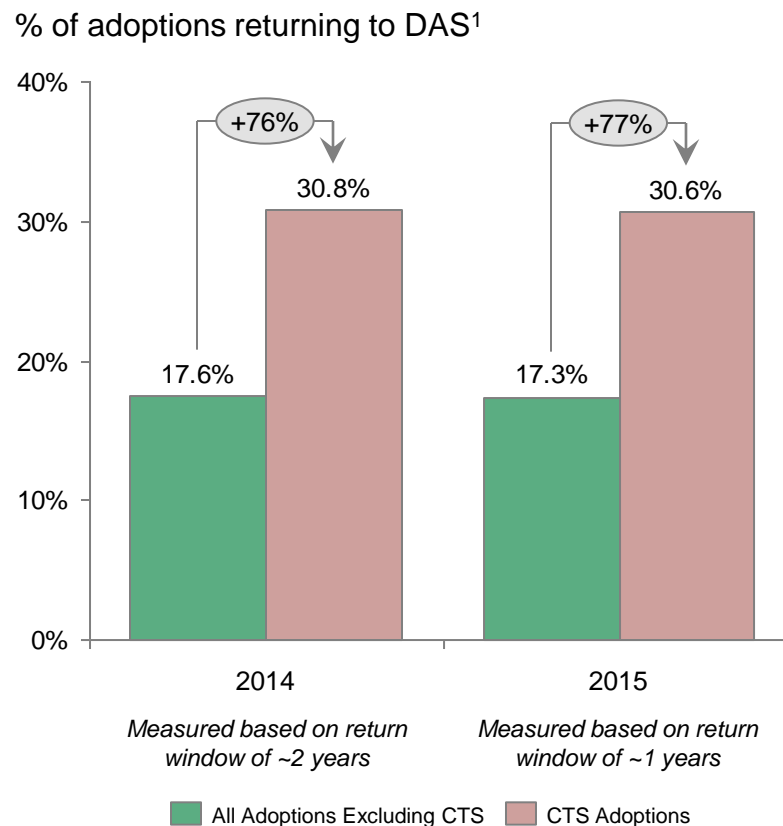


Dog demand wanes following CTS, with dogs adopted during CTS ~75% more likely to return to DAS than other adoptions

Fewer adoptions/day during 2 weeks after CTS relative to prior 2 weeks



Adoptions during CTS ~75% more likely to return to DAS than rest of adoptions



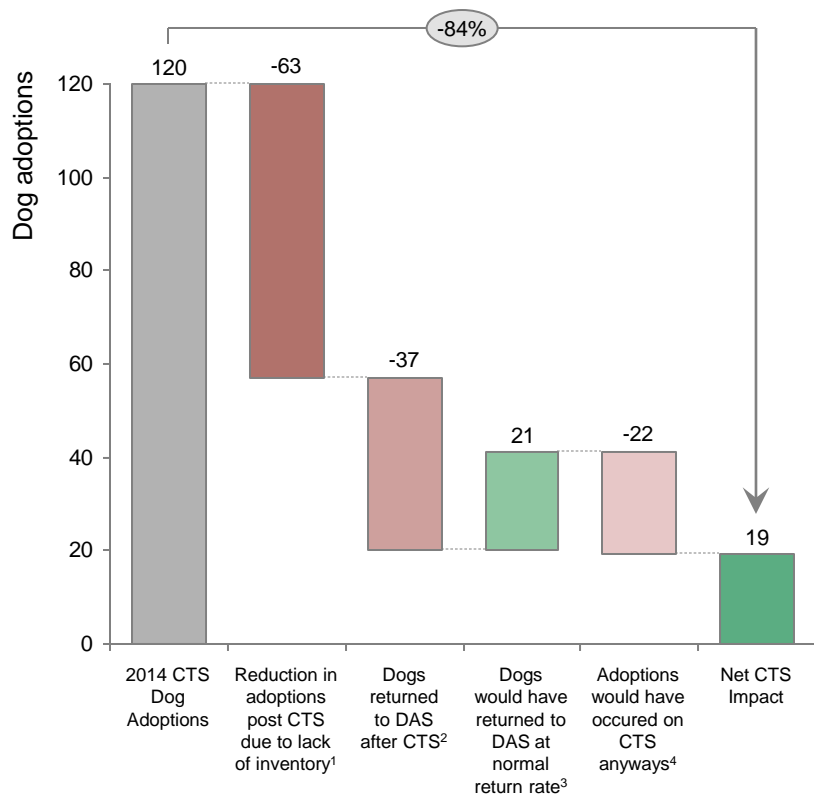
1. Return rates for respective specified groups from indicated time through May 2016

Source: DAS Chameleon database and BCG analysis

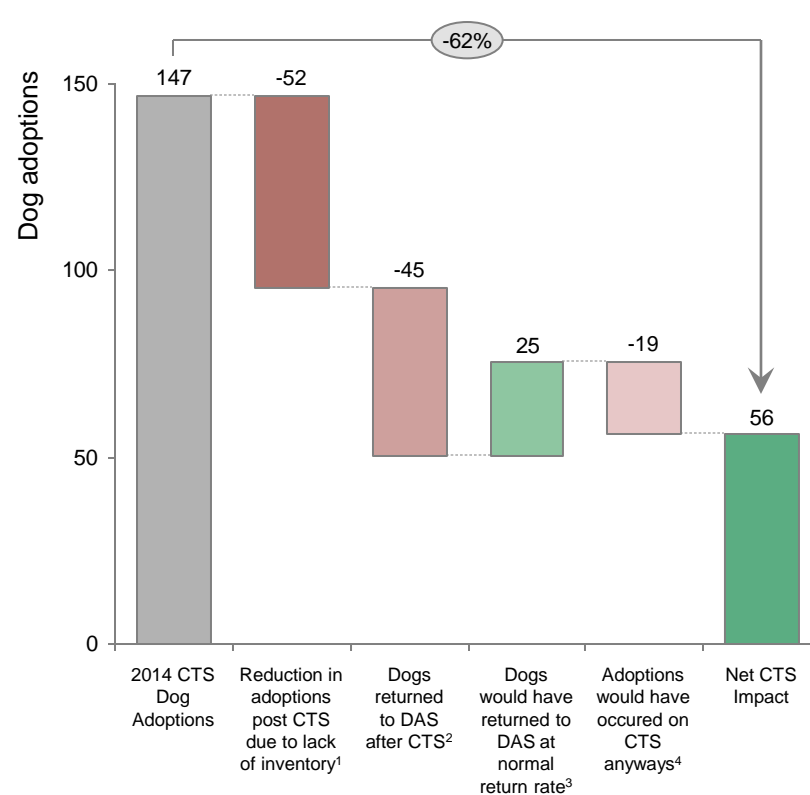


CTS total impact is limited by reduced adoptions following CTS and higher return rates for dogs adopted on CTS

In 2014, CTS net impact on dog adoptions 84% lower than perceived



In 2015, CTS net impact on dog adoptions 62% lower than perceived

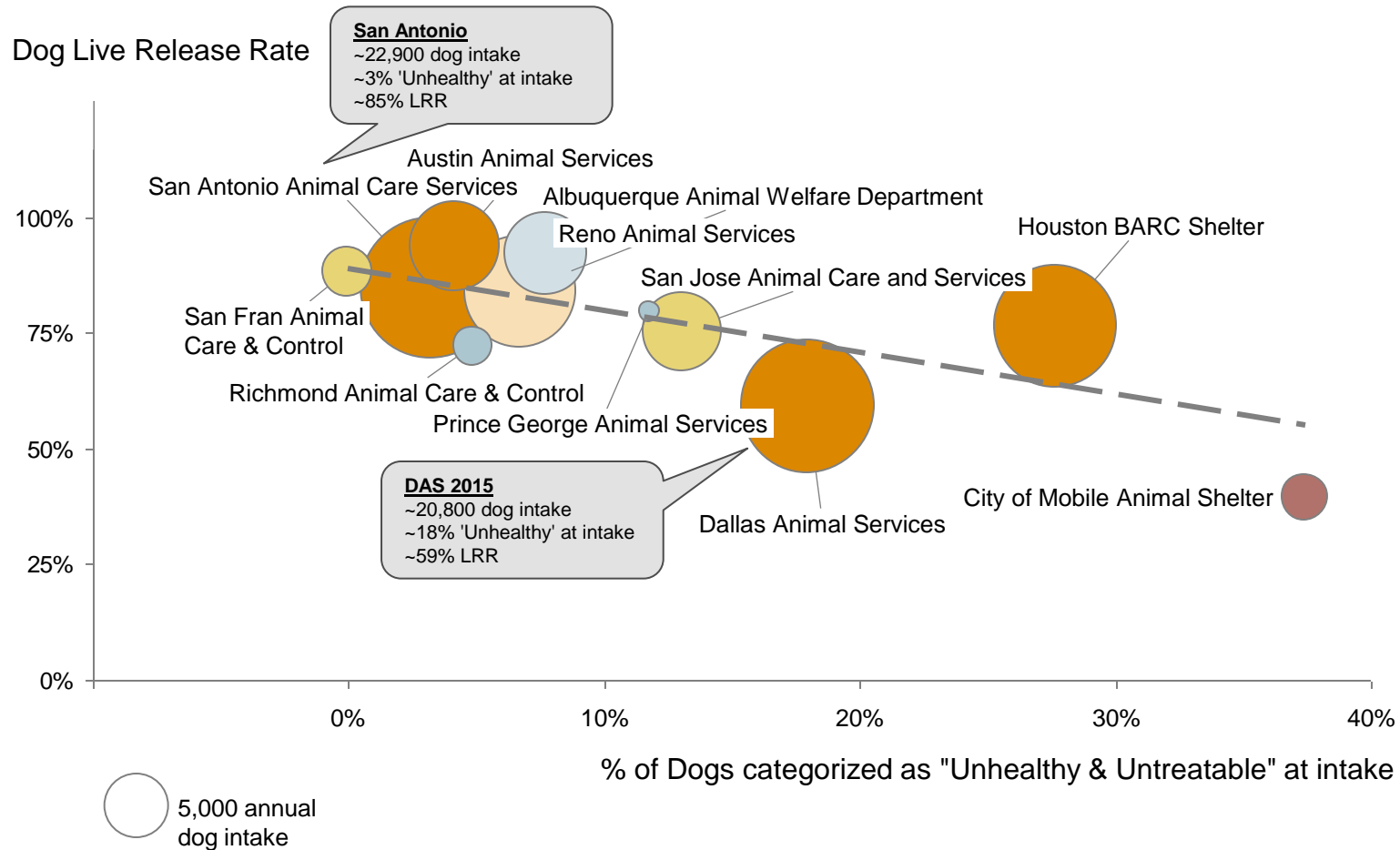


1. Difference in average daily adoptions leading up to CTS and average daily adoptions after (2 weeks after) when dogs available have mostly been adopted during CTS; 2. Dogs returned and adopted on respective CTS through May 2016; 3. Dogs that would have been returned to DAS at the normal return rate for respective year. 4. Average daily adoptions leading up to CTS
Source: DAS Chameleon database, BCG analysis



Across open admission shelters, those with higher levels of 'Unhealthy & Untreatable' intake tend to have lower LRRs

Health at Intake vs. LRR for Open Admission Shelters



Note: Shelters are predominantly 'open admission' meaning they do not turn animals away. Majority of LRR and health status data from 2013 report. DAS, San Antonio and Houston LRR and health status from 2015

Source: Maddie's Fund "Comparative Database Full Dataset" and shelter websites, BCG analysis

4 Benchmarks



Three questions served as basis for approach to understand how other cities approach animal control

Key questions

Our approach

A

How do other US cities structure their animal control agencies?

- Benchmark interviews
- Secondary research

B

How have comparable cities overcome similar dog issues?

- Benchmark interviews
- Secondary research

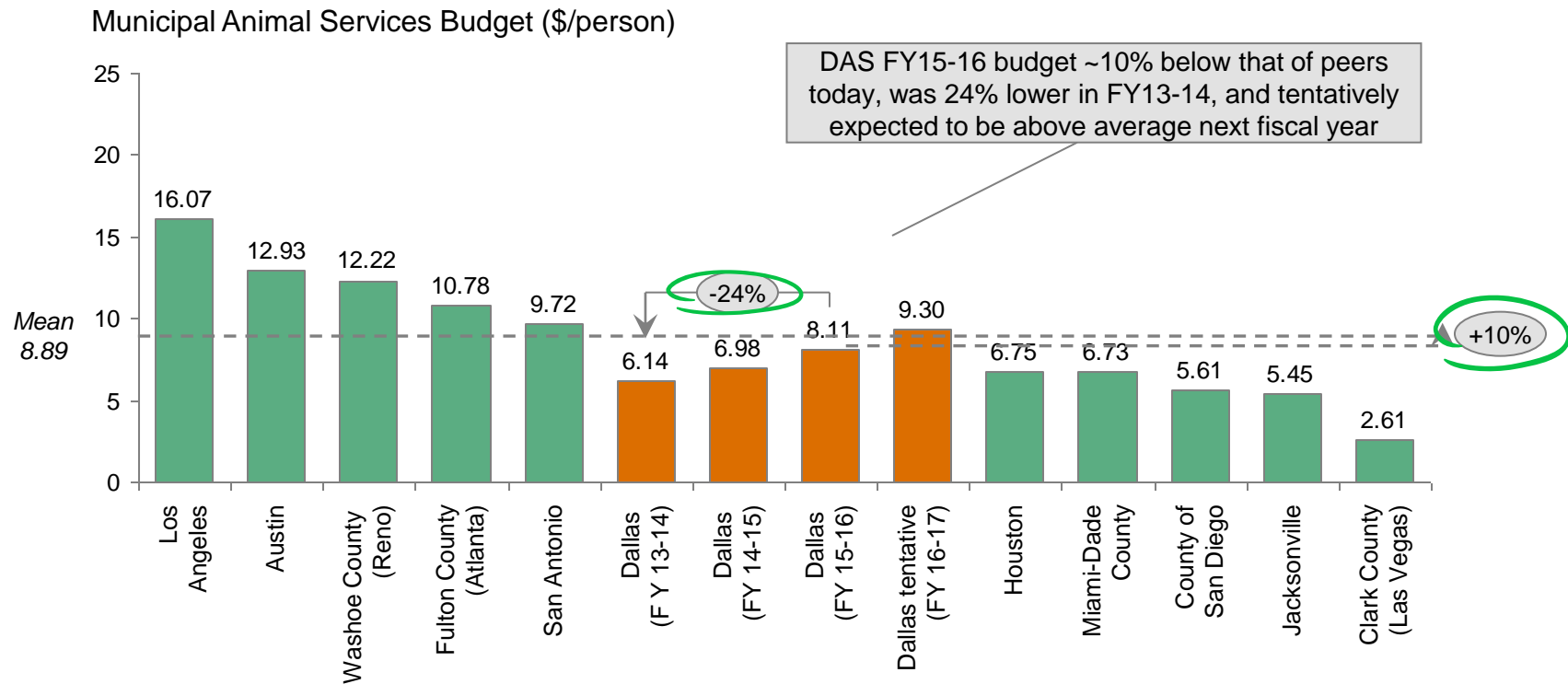
C

What best practices can be applied in Dallas?

- Benchmark interviews
- Secondary research

DAS operates with budget ~10% below peer average...

Municipal Spending on Animal Services for Benchmark Cities

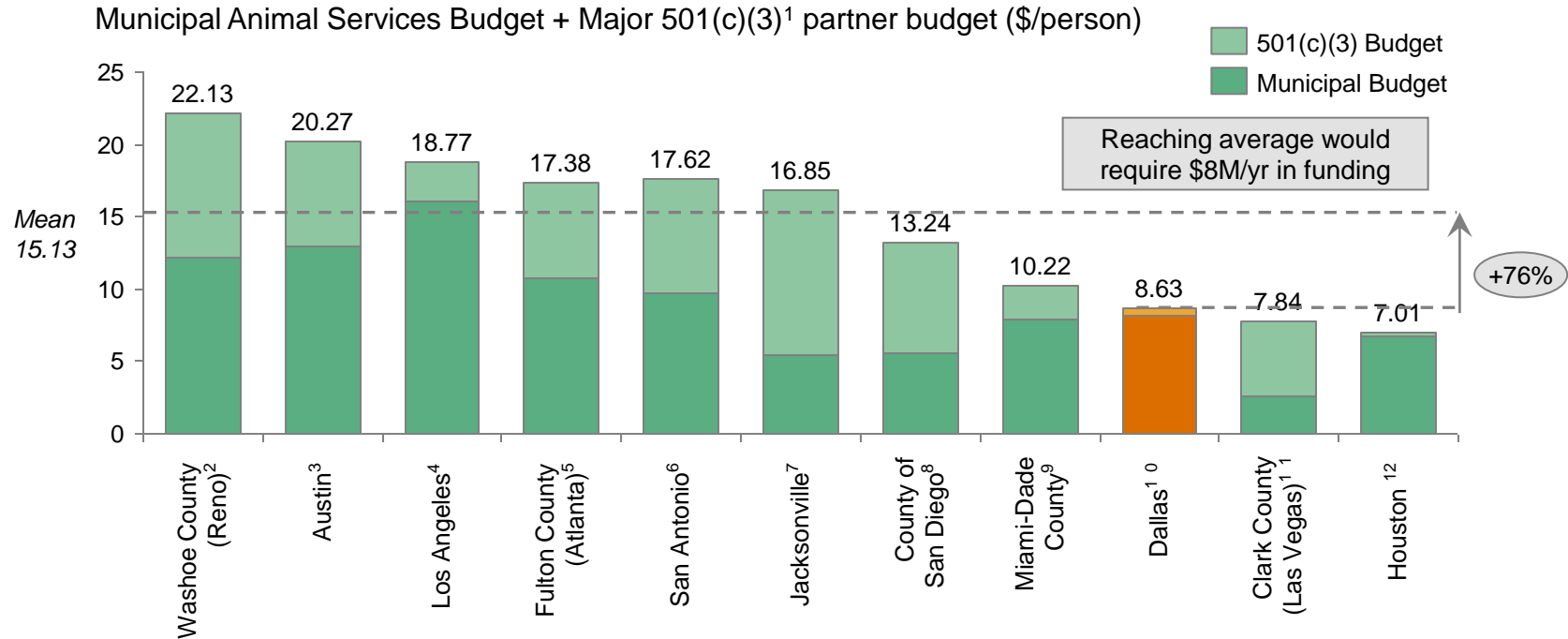


Note: Mean excludes Dallas, Source: Interviews with management from Los Angeles Animal Services, Washoe County Animal Services, County of San Diego Animal Services, San Antonio Animal Care Services, Fulton County Animal Services Austin Animal Services, Dallas Animal Services FY 2015 General Fund Budget, Jacksonville Animal Care and Protective Services, and Clark County Animal Control, Lifeline Animal Project 990 Tax Form (2014), Miami-Dade Animal Services Projected Budget (2015), US Census Bureau 2013 Population Estimate and BCG analysis

...and significantly below cities with explicit 501(c)(3)s partnerships which provide ancillary funding

100% of partner budget shown to demonstrate potential; partnerships enable shelters to transfer activities and costs to their partner

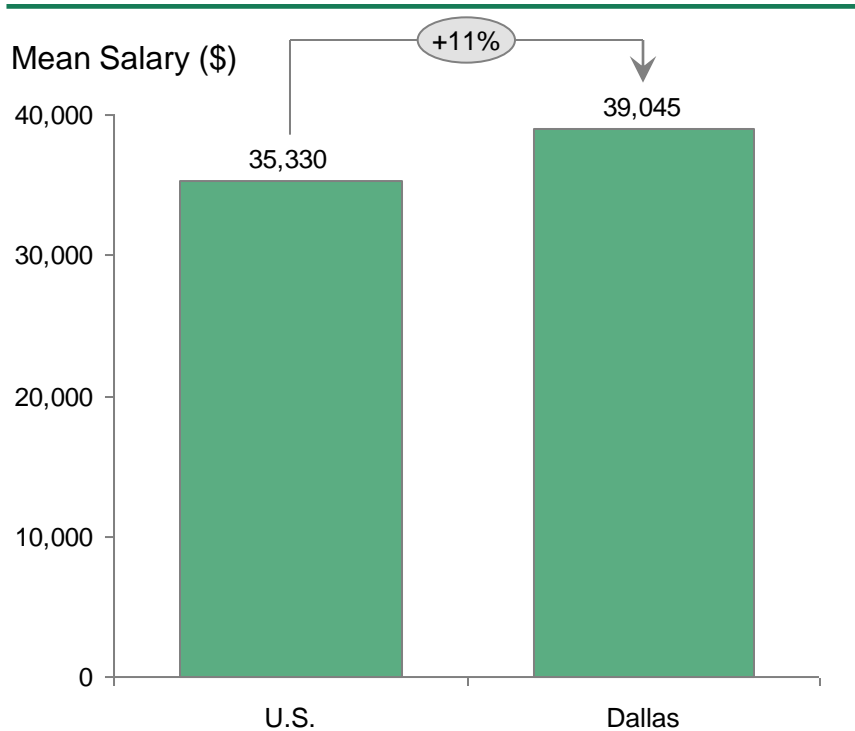
Municipal and Non-Profit Spending on Animal Services for Benchmark Cities



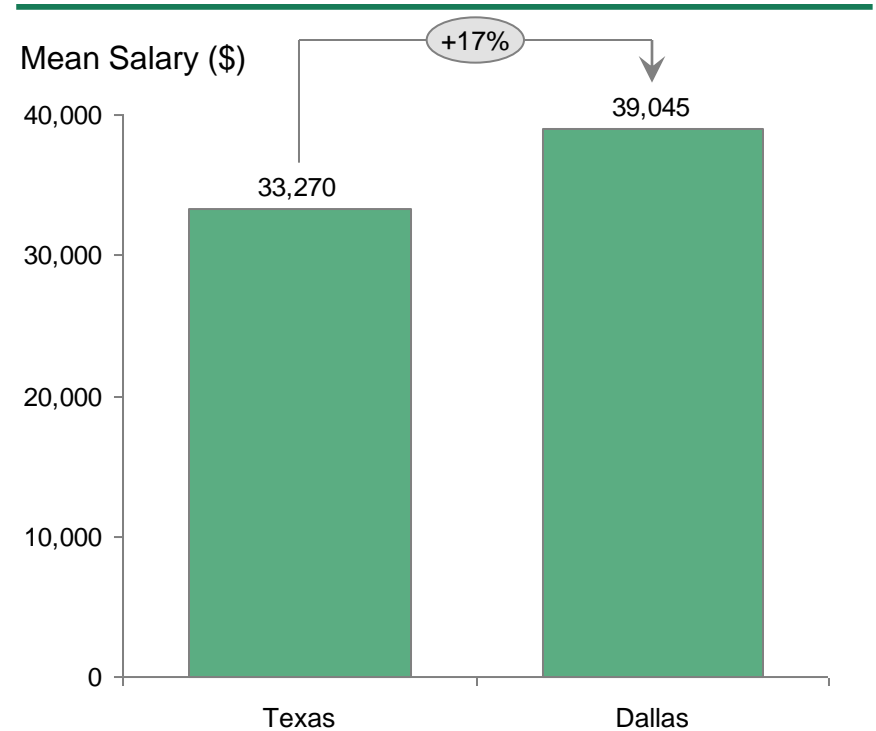
1. Outside of Dallas, includes only 501(c)(3)s that were highlighted during benchmarking interviews as being close partners with either contractual obligations, an MOU, or similar; 2. Budget includes contracted partner: Nevada Humane Society; 3. Budget includes MOU partners: Austin Pets Alive! and Austin Humane Society; 4. Budget includes MOU Partners: Best Friends Animal Society and Found Animals Foundation; 5. Budget includes close partner: The Atlanta Humane Society; 6. Budget includes MOU and contract partners: Animal Defense League, San Antonio Humane Society, San Antonio Pets Alive!; 7. Budget includes contracted partner: The Jacksonville Humane Society and close partner First Coast No More Homeless Pets. 8. Budgeted includes MOU partner San Diego Humane Society; 9. Budget includes major partner: Humane Society of Greater Miami; 10. Budget includes DAS budget FY 2015-2016 and DCAP; 11. Budget includes contract partner: The Animal Foundation; 12. Budget includes contracted partner: Rescued Pets Movement. Note: Mean excludes Dallas; Source: Interviews with management from Los Angeles Animal Services, Best Friends Animal Society Washoe County Animal Services, County of San Diego Animal Services, San Diego Humane Society, San Antonio Animal Care Services, Fulton County Animal Services Austin Animal Services, Austin Humane Society, Austin Pets Alive!, San Antonio Humane Society, Dallas Animal Services, Humane Society of Greater Miami, Jacksonville Animal Care and Protective Services, Jacksonville Humane Society, Austin Pets Alive!, and Clark County Animal Control. Animal Foundation 2015 Yearly Report, the Nevada Humane Society 990 Tax Form (2014), San Antonio Pets Alive! 990 Tax Form (2014), Animal Foundation 990 Tax Form (2014), Animal Defense League 990 Tax Form (2015), Lifeline Animal Project 990 Tax Form (2014), Atlanta Humane Society 990 Tax Form (2014), Rescued Pets Movement 990 Tax Form (2014), Miami-Dade Animal Services Projected Budget (2015), First Coast No More Homeless Pets 990 Tax Form (2014), US Census Bureau 2013 Population Estimate and BCG analysis

ASOs earn more than national and Texas averages

Dallas ASOs make 11% more than national average



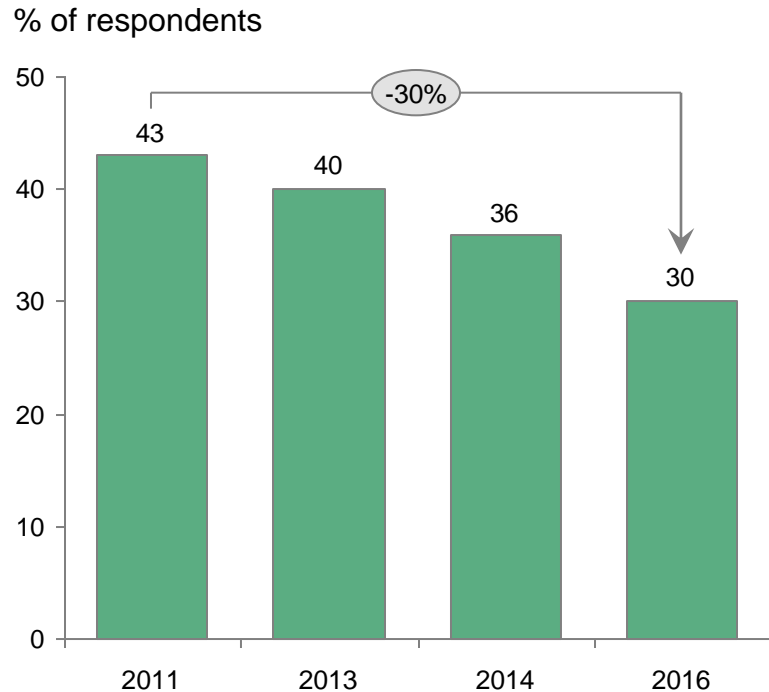
...and 17% more than the Texas average



Animal Control's perceived performance based on community input has decreased year over year

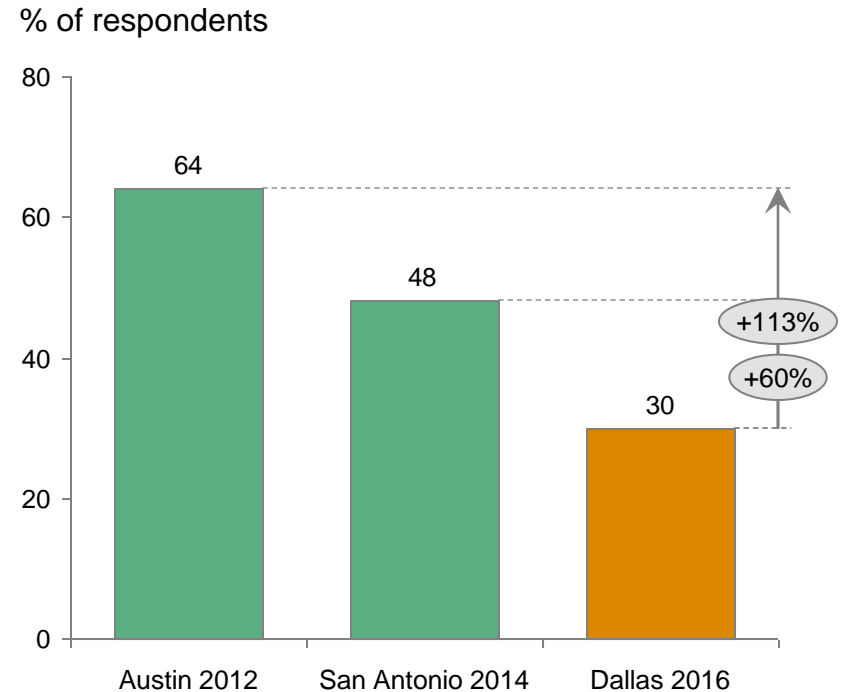
~30% decrease in city's Animal Control performance in the last 5 years

Respondents who rated Animal Control as "excellent" or "good" (excluding don't knows)



Dallas falls significantly behind when comparing to Texas peers

Respondents who rated item as a 4 or 5 on 5 point scale (excluding don't knows)



Note: Not all cities perform community services or conduct them yearly. City of Austin Community Survey Findings (2012). City of San Antonio Community Survey (2014)

Source: 2014 City of Dallas Community Survey (n=1,523), 2016 City of Dallas Community Survey (n=11,512), BCG analysis

San Antonio: plan for municipal animal shelter 90% LRR

Based on expert interviews and in-depth research, but not reviewed or confirmed by benchmark city

Description

San Antonio Animal Care Services is the largest open admission shelter in South Texas.

San Antonio's ACS' strategic priorities include enhanced enforcement, control of the roaming animal population, increasing the live release rate (LRR), and engaging and educating the community.

San Antonio Key Historical Milestones

- In 2011, San Antonio's Animal Control took in 28,000 animals with a live release rate (LRR) of 32%
- In 2012, San Antonio revised their Strategic Plan focusing on three strategic priorities: enforcement, stray animal control, and live release
 - Animal Control Services recently added a fourth strategic priority: education and outreach
- In fiscal year 2015, the city was a record-breaking year for San Antonio with the city achieving:
 - 85% LRR, with a total of 24,535 live outcomes, and 3,667 return to owner's
 - 3,558 Free Registered Microchips distributed
 - 18,810 homes visited through the comprehensive neighborhood sweeps initiative
- 90% LRR was reached in December 2015 and has stayed constant through February 2016
- San Antonio is the largest city in the nation to reach 90% LRR

100+ rescues/shelters including:



Key Levers Utilized By San Antonio

Spay and Neuter

Targets 41 pet spay and neuters per 1,000 residents

Adoption/Foster

Increase volume of adoptions across coalition partners

Foster pets for animal's chance to grow before finding homes

Transport

5 large rescue groups provide transport services out of state

Volunteers & Donations

Volunteers power the shelter

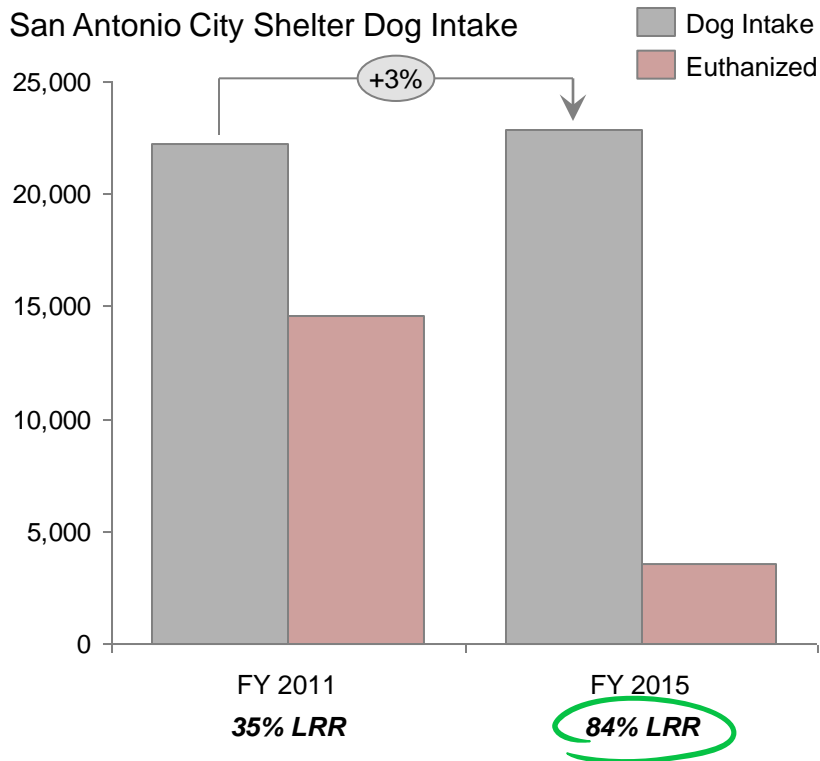
Donations needed to fund pet pantry, daily items, and strategic initiatives

San Antonio realized 49% increase in dog LRR since FY 2011

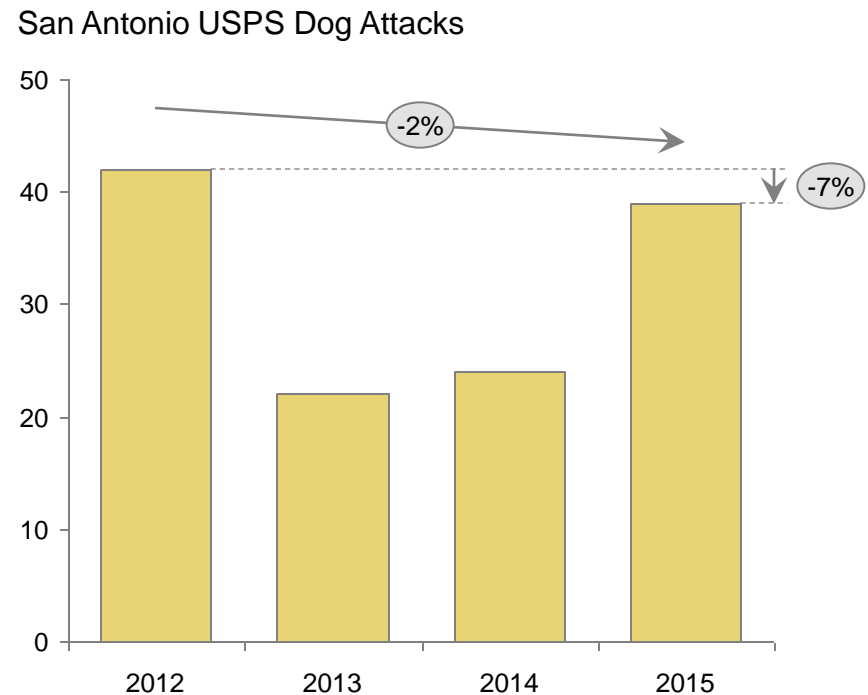
Dog LRR increased to 84% while dog attacks decreased 7% since 2012 (2% CAGR decline)

Based on expert interviews and in-depth research, but not reviewed or confirmed by benchmark city

San Antonio dog intake slightly increased since 2011, LRR up to 84%...



...with dog bites indicators in slight decline



Positive outcomes realized from strategic plan

No-Kill Los Angeles: coalition plan to city-wide 90% LRR

Based on expert interviews and in-depth research, but not reviewed or confirmed by benchmark city

Description

No-Kill Los Angeles ("NKLA") is an initiative, established in 2011 and led by Best Friends Animal Society, to turn Los Angeles into a no-kill¹ city by the year 2017.

NKLA aims to be a model for city-wide cooperation to reach a position in which no healthy or treatable animal ever has to die or be euthanized across all 6 city animal shelters

NKLA Key Historical Milestones

- In 2011, the Los Angeles City Council signed off on a 'No Kill Los Angeles' pledge to make L.A. an official 'no kill' animal shelter town by 2017
- At time NKLA began, 42.2% of animals who entered the city's publicly operated shelters were euthanized (57.8% LRR)
- In FY 2012, L.A. city animal shelters took in 57,275 dogs/cats and 21,620 were euthanized (62% LRR)
- In FY 2016, L.A. city animal shelters took in 45,608 dogs/cats, 8,748 were euthanized (81% LRR)
- NKLA coalition helped ~27,100 dogs and cats find new homes in 2015
- In 2016, L.A. realized 89% LRR for dogs
- Since the launch of NKLA in 2012, the number of pets being killed in L.A. across the six city shelters has decreased by 66%

115+ rescues/shelters including:



Key Levers Utilized By NKLA

Spay and Neuter

Targets 5 pet S/N of low-income residents per 1,000

Realize 30% decline in intake over 5 years

Adoption/Foster

Increase volume of adoptions across coalition partners

Foster to increase adoptability of animals

Transport

~1,000 transports/year to North West and North East

Volunteers & Donations

Volunteers power the NKLA initiative

Donations needed to fund initiatives

1. A shelter or rescue policy that any healthy or treatable animal will be given the opportunity and resources to live until adopted; Source: No-Kill Los Angeles website, BCG analysis

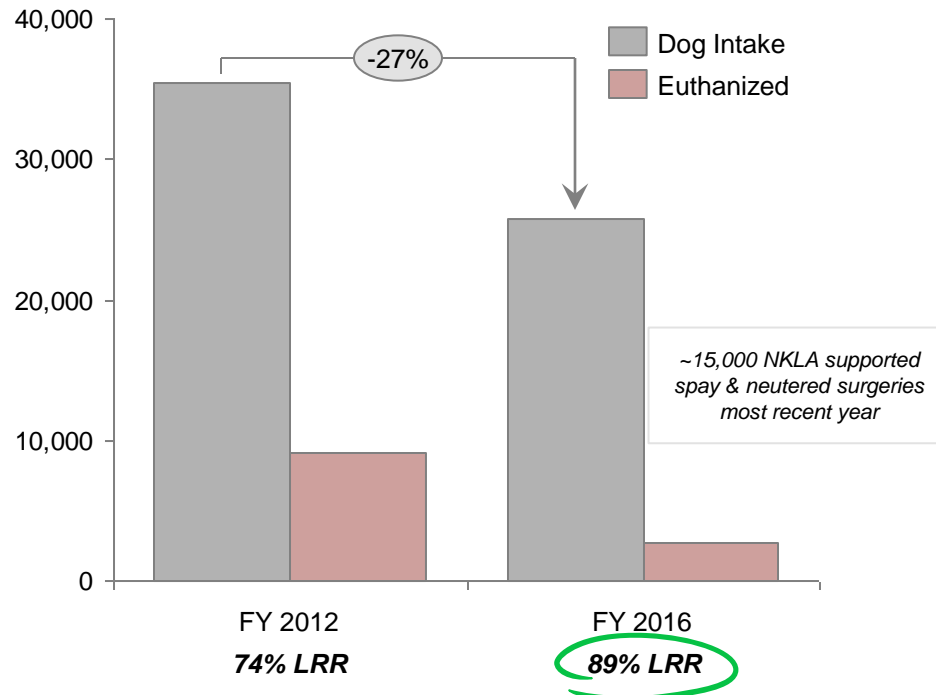
L.A. realized 27% decline in dog intake since NKLA started

Dog LRR increased to 89% while dog attacks decreased 19% since 2012 (7% CAGR decline)

Based on expert interviews and in-depth research, but not reviewed or confirmed by benchmark city

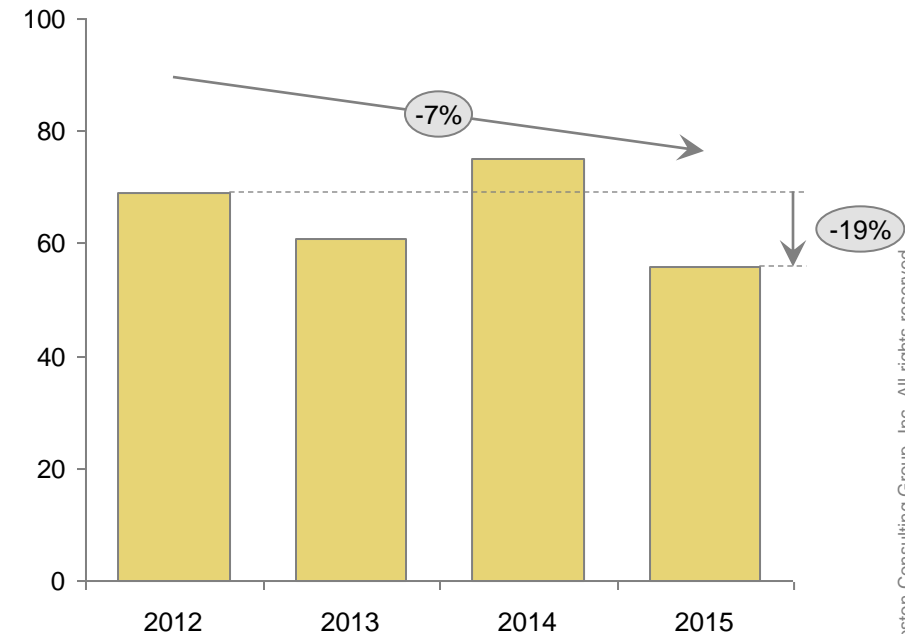
L.A. dog intake decrease 27% since 2012 , LRR up to 89%...

L.A. City Shelters Dog Intake



...while indicator of dog attacks is down

L.A. USPS Dog Attacks



Positive outcomes realized from NKLA efforts



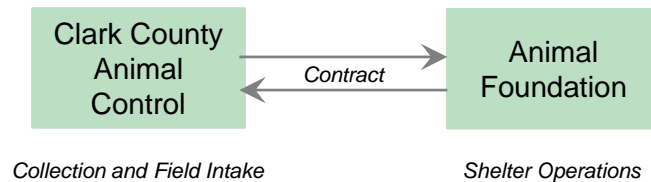
Benchmark: Clark County, Nevada (Las Vegas)

Based on expert interviews and in-depth research, but not reviewed or confirmed by benchmark city

Interviews: Clark County Animal Control, Animal Foundation

Relationships

Clark County Animal Control contracts the Animal Foundation to provide all shelter operations for Clark County, leaving collection and field intake to the county.



- Contractually obligated to Clark County
- Not contractually obligated to Clark County

Key Facts

Clark County Animal Control

- Governance: Subdivision within department of Administrative Services, partially privatized¹
- Dispatch: Animal call center
- Volunteers: Does not use because Clark County only performs collection and field intake
- Animal Officers: 16
- Budget: ~\$5.3MM
- Animal Intake: ~18k
- Live Release Rate: ~64%

Community-Wide Operations:

- Spay and neuter surgeries estimate: 20k yearly
- Budget: ~\$16MM
- Volunteers (people): ~1.3k

1. Clark County Animal Control privatizes shelter operations and performs collection and field intake; Note: Community-wide operations include Clark County Animal Control and Animal Foundation. Not representative of entire community. Other key organizations may not have been included; Source: Interviews with Clark County Animal Control and Animal Foundation. Most recently available 990 Tax Forms for Animal Foundation, BCG analysis

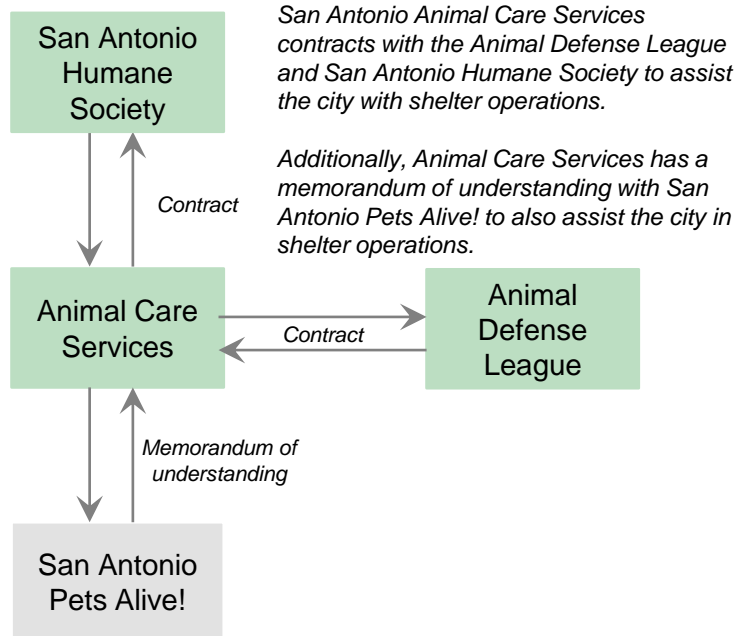


Benchmark: San Antonio, Texas

Based on expert interviews and in-depth research, but not reviewed or confirmed by benchmark city

Interviews: San Antonio Animal Care Services, San Antonio Humane Society

Relationships



- Contractually obligated to San Antonio
- Not contractually obligated to San Antonio

Key Facts

San Antonio Animal Care Services:

- Governance: Standalone department
- Dispatch: 311 or equivalent
- Volunteers (people): ~500
- Animal Officers: 26
- Budget: ~\$13MM
- Animal Intake: ~30k
- Live Release Rate: ~90%

Community-Wide Operations:

- Spay and neuter surgeries estimate: 58k yearly
- Budget: ~\$24MM
- Volunteers (people): ~5.5k

Note: Community-wide figures include Animal Care Services, San Antonio Pets Alive!, Animal Defense League, and San Antonio Humane Society. Not representative of entire community. Other key organizations may not have been included; Source: Interviews with San Antonio Animal Care Services and San Antonio Humane Society. Most recently available 990 Tax Forms for San Antonio Pets Alive! and Animal Defense League. BCG analysis



Benchmark: Los Angeles, California

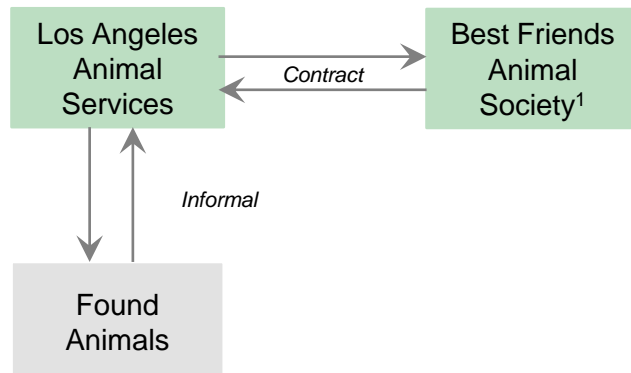
Based on expert interviews and in-depth research, but not reviewed or confirmed by benchmark city

Interviews: Los Angeles Animal Services, Best Friends Animal Society, Found Animals

Relationships

Los Angeles Animal Services contracts one of their shelter facilities to Best Friends Animal Society.

Additionally, Los Angeles Animal Services has an informal, but significant relationship with Found Animals.



- Contractually obligated to Los Angeles
- Not contractually obligated to Los Angeles

Key Facts

Los Angeles Animal Services

- Governance: Standalone department
- Dispatch: Animal call center
- Volunteers (people): ~5k
- Animal Officers: 50
- Budget: ~\$23MM
- Animal Intake: ~45k
- Live Release Rate: ~84%

Community-Wide Operations:

- Spay and neuter surgeries estimate: 51k yearly
- Budget: ~\$44MM
- Volunteers (people): ~11.7k

1. Los Angeles Animal Services contracts one of their shelter facilities to Best Friends Animal Society. Note: Community-wide operations include Los Angeles Animal Services, Best Friends Animal Society, and Found Animals. Not representative of entire community. Other key organizations may not have been included; Source: Interviews with Los Angeles Animal Services and Found Animals. BCG analysis



Benchmark: County of San Diego, California

Based on expert interviews and in-depth research, but not reviewed or confirmed by benchmark city

Interviews: County of San Diego Animal Services, San Diego Humane Society

Relationships

The County of San Diego Animal Services has a memorandum of understanding with all of the "Get to Zero" coalition members. One of those members is the San Diego Humane Society, which also performs collection, field intake, and shelter operations in the San Diego area.



- Contractually obligated to County of San Diego
- Not contractually obligated to County of San Diego

Key Facts

County of San Diego Animal Services

- Governance: Standalone department
- Dispatch: Animal call center
- Volunteers (people): ~700
- Animal Officers: 32
- Budget: ~\$17MM
- Animal Intake: ~45k
- Live Release Rate: ~81%

Community-Wide Operations:

- Spay and neuter surgeries estimate: 40k yearly
- Animal Officers: 54
 - Humane Society has 22 "Humane Law Enforcement Officers"
- Budget: ~\$41MM
- Volunteers (people): ~5900

Note: Community-wide operations include County of San Diego Animal Services and San Diego Humane Society. Not representative of entire community. Other key organizations may not have been included; Source: Interviews with County of San Diego Animal Services and San Diego Humane Society. BCG analysis



Benchmark: Austin, Texas

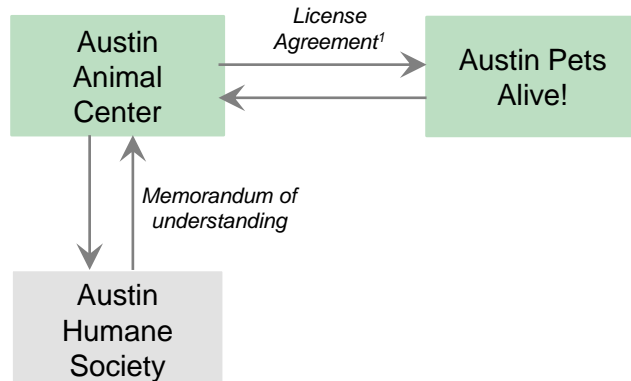
Based on expert interviews and in-depth research, but not reviewed or confirmed by benchmark city

Interviews: Austin Animal Center, Austin Humane Society, Austin Pets Alive!

Relationships

Austin Animal Center has a license agreement with Austin Pets Alive! for facility use.

Additionally, Austin Animal Center has a memorandum of understanding with the Austin Humane Society to assist shelter operations.



- Contractually obligated to Austin
- Not contractually obligated to Austin

Key Facts

Austin Animal Center

- Governance: Standalone department
- Dispatch: 311 or equivalent
- Volunteers (people): ~700
- Animal Officers: 20
- Budget: ~\$11.5MM
- Animal Intake: ~18,000
- Live Release Rate: ~96%

Community-Wide Operations:

- Spay and neuter surgeries estimate: 40k yearly
- Budget: ~\$18.5MM
- Volunteers (people): ~3625

1. Austin Animal Center has a license agreement, which functions as a contract between the animal center and Austin Pets Alive!; Note: Community-wide operations include Austin Animal Center, Austin Humane Society, and Austin Pets Alive!. Not representative of entire community. Other key organizations may not have been included; Source: Interviews with Austin Animal Center, Austin Humane Society, and Austin Pets Alive! BCG analysis

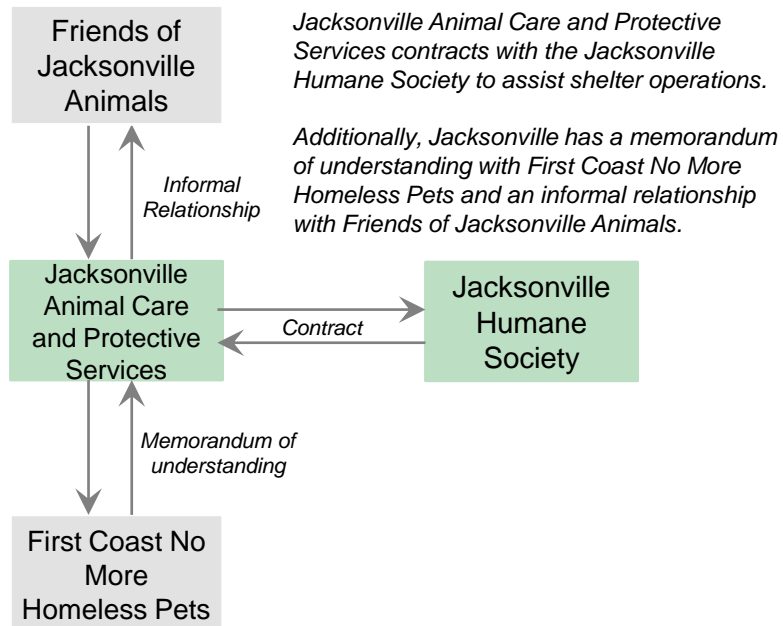


Benchmark: Jacksonville, Florida

Based on expert interviews and in-depth research, but not reviewed or confirmed by benchmark city

Interviews: Jacksonville Animal Care and Protective Services, Jacksonville Humane Society, Friends of Jacksonville Animals

Relationships



- Contractually obligated to Jacksonville
- Not contractually obligated to Jacksonville

Key Facts

Jacksonville Animal Care and Protective Services

- Governance: Subdivision within Neighbors Department¹
- Dispatch: 311 or equivalent
- Volunteers (people): ~100
- Animal Officers: 14
- Budget: ~\$4MM
- Animal Intake: ~13k
- Live Release Rate: ~90%

Community-Wide Operations:

- Spay and neuter surgeries estimate: 39k yearly
- Budget: ~\$13.7MM
- Volunteers (people): ~1k

1. City department; Note: Community-wide operations include Humane Society and First Coast No More Homeless Pets. Community budget also includes Friends of Jacksonville Animals. Not representative of entire community. Other key organizations may not have been included; Source: Interviews with Jacksonville Animal Care and Protective Services and Jacksonville Humane Society. 990 Tax Form for First Coast No More Homeless Pets (2014). BCG analysis



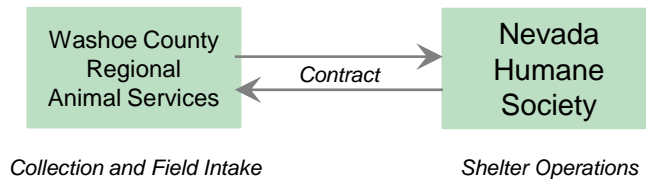
Benchmark: Washoe County, Nevada (Reno)

Based on expert interviews and in-depth research, but not reviewed or confirmed by benchmark city

Interviews: Washoe County Regional Animal Services, Nevada Humane Society

Relationships

Washoe County Regional Animal Services contracts the Nevada Humane Society to provide all shelter operations for Washoe County, leaving collection and field intake to the county.



- Contractually obligated to Washoe County
- Not contractually obligated to Washoe County

Key Facts

Washoe County Regional Animal Services

- Governance: Standalone department
- Dispatch: Animal call center
- Volunteers (people): ~10
- Animal Officers: 16
- Budget: ~\$5.3MM
- Animal Intake: ~14k
- Live Release Rate: ~90%

Community-Wide Operations:

- Spay and neuter surgeries estimate: 15k yearly
- Budget: ~\$9.6MM
- Volunteers (people): ~810

Note: Community-wide figures include Washoe County Regional Animal Services and Nevada Humane Society. Not representative of entire community. Other key organizations may not have been included; Source: Interviews with Washoe County Regional Animal Services and Nevada Humane Society. BCG analysis



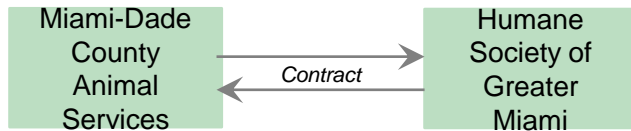
Benchmark: Miami-Dade County, Florida

Based on expert interviews and in-depth research, but not reviewed or confirmed by benchmark city

Interviews: Miami-Dade County Animal Services, Humane Society of Greater Miami

Relationships

Miami-Dade Animal Services contracts with the Humane Society to provide ~4k spay and neuter surgeries a year. Collection, field, and shelter operations are all mainly performed by Miami-Dade County.



- Contractually obligated to Miami-Dade County
- Not contractually obligated to Miami-Dade County

Key Facts

Miami-Dade County Animal Services

- Governance: Standalone department
- Dispatch: 311 or equivalent
- Animal Officers: 14
- Budget: ~\$17.6MM
- Animal Intake: ~30k
- Live Release Rate: ~90%

Community-Wide Operations:

- Spay and neuter surgeries estimate: 35k yearly
- Budget: ~\$24MM
- Volunteers (people): ~300

Note: Community-wide figures include Miami-Dade County Animal Services and Humane Society of Greater Miami. Not representative of entire community. Other key organizations may not have been included; Source: Interviews with Miami-Dade Animal Services, Humane Society of Greater Miami. BCG analysis



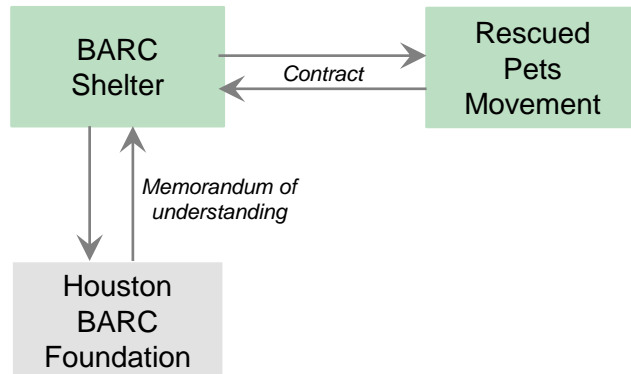
Benchmark: Houston, Texas

Based on expert interviews and in-depth research, but not reviewed or confirmed by benchmark city

Interviews: Houston BARC

Relationships

Houston's BARC Animal Shelter & Adoptions provides collection, field intake, and shelter operations. BARC contracts the Rescued Pets Movement to transport thousands of animals outside of Houston.



- Contractually obligated to Houston
- Not contractually obligated to Houston

Key Facts

Houston BARC Animal Shelter

- Governance: Subdivision within Administration and Regulatory Affairs Department
- Dispatch: 311 or equivalent
- Volunteers (people): ~615
- Animal Officers: 27
- Budget: ~\$13MM
- Animal Intake: ~26k
- Live Release Rate: ~75%

Community-Wide Operations:

- Spay and neuter surgeries estimate: 16k yearly
- Budget: ~\$13.5MM

Note: Community-wide figures include Houston BARC Shelter. Community budget also includes Rescued Pets Movement and Houston BARC Foundation. Not representative of entire community. Other key organizations may not have been included; Source: Interviews with Houston BARC. Most recently available 990 Tax Forms for Houston BARC Foundation and Rescued Pets Movement. BCG analysis



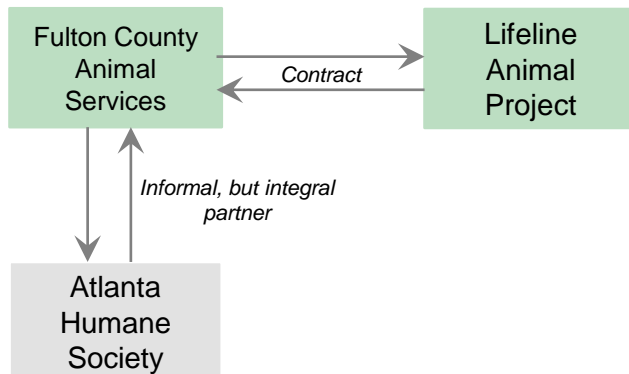
Benchmark: Fulton County, Georgia (Atlanta)

Based on expert interviews and in-depth research, but not reviewed or confirmed by benchmark city

Interviews: Fulton County Animal Services

Relationships

Fulton County Animal Services contracts shelter operations for the county to Lifeline Animal Project. The county still performs field collection and intake. Additionally, in interviews, Atlanta Humane Society was described as an integral partner that has no formalized contract with the county.



- Contractually obligated to Fulton County
- Not contractually obligated to Fulton County

Key Facts

Fulton County Animal Services

- Governance: Subdivision within Health Department
- Dispatch: Animal call center
- Animal Officers: 16
- Budget: ~\$3MM
- Animal Intake: ~15k
- Live Release Rate: ~85%

Community-Wide Operations:

- Spay and neuter Surgeries Estimate: 10k yearly
- Budget: ~\$17MM

Note: Community-wide figures include Fulton County Animal Services., Lifeline Animal Project, and Humane Society of Atlanta. Not representative of entire community. Other key organizations may not have been included; Source: Interview with Fulton County Animal Services. Most recently available 990 Tax forms for Lifeline Animal Project and Humane Society of Atlanta. BCG analysis

Appendix: Rescue and Animal Welfare Organization Survey

Survey was issued to animal welfare groups in Dallas

Purpose	<ul style="list-style-type: none">• To get a picture of the landscape of animal-related organizations in the Dallas area• To dive deeper into dog rescues capacity and extent to which they can pull more dogs from DAS
Survey structure	<p>Section 1: What does the Dallas animal welfare landscape look like?</p> <ul style="list-style-type: none">• Basic information on each animal-related organization incl. size, mission, and purpose <p>Section 2: What impact are dog rescue organizations having today?</p> <ul style="list-style-type: none">• Dog intake, daily capacity, growth, source of dogs <p>Section 3: To what extent/under which conditions could partners transfer more DAS dogs?</p> <ul style="list-style-type: none">• DAS satisfaction level, reasons for DAS dog increase or decrease
Outreach	<ul style="list-style-type: none">• Utilized all DAS channels including Facebook pages and rescue group email lists• Reached out personally to every organization interviewed• Cold-called 60+ organizations• Sent cold emails to ~100 organizations• Attended rescue summit in southern Dallas
Response	<ul style="list-style-type: none">• 72 unique orgs.(via execs or board members) took the survey, and 65 completed all• 58 respondents were rescue organizations that transfer, foster, or shelter dogs

Rescue and Animal Organization Survey findings

There are many animal welfare organizations that provide a great deal of support to the city of Dallas

- Annual budget of survey respondents is \$28MM+, and they serve 149k animals
- 74% of survey respondents are growing
- Surveyed organizations perform multiple and overlapping missions and are focused on short-term, rather than long-term solutions
 - E.g., 63% focus on adoptions and fosters while only 3% focus on spay and neuter

Rescue organizations—non-profit groups that house and adopt out dogs—provide much needed support for the city

- Rescues are estimated to have a 2016 annual intake of ~46,000 dogs and on any day have the capacity to house ~4k dogs
- Currently, rescues get 10% of dogs from DAS, 25% from other city shelters, 42% from owner surrenders, 13% from street rescue, 10% from other sources such as cruelty cases and fosters
- Rescue organizations are concentrated in size
 - ~20% of rescue organizations have ~80% of annual dog intake

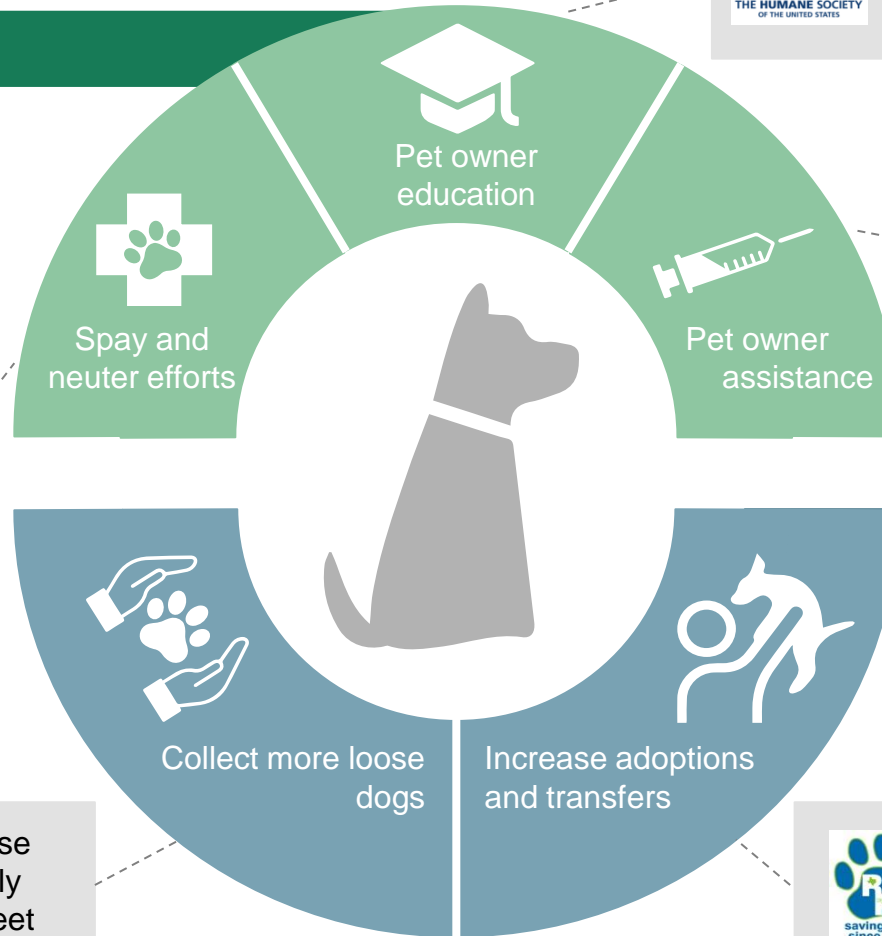
To increase number of transfers, DAS can improve the areas of operation that matter most to transfer partners

- Large partners care most about 1.) their personal needs being met, 2.) improving the tagging/pulling progress , and 3.) getting better information on the dogs at DAS
- Smaller partners care most about 1.) building stronger relationships with DAS, 2.) improving the tagging/pulling process, and 3.) increasing access to dog information

Animal welfare groups can help Dallas control its dog population with both short-term and long-term solutions

Long-term solutions

While long term solutions that address root cause of loose dog population take several years to bear fruit...



Offers door-to-door education and resources



Pet owner education



Pet owner assistance



**NORTH TEXAS
PET FOOD
PANTRY**

Provides pet food to owners in need



Spay and neuter efforts



Collect more loose dogs



Increase adoptions and transfers

Short-term solutions

...must simultaneously focus resources on short term solutions to ensure immediate public safety and high LRR



Provides low-cost surgeries



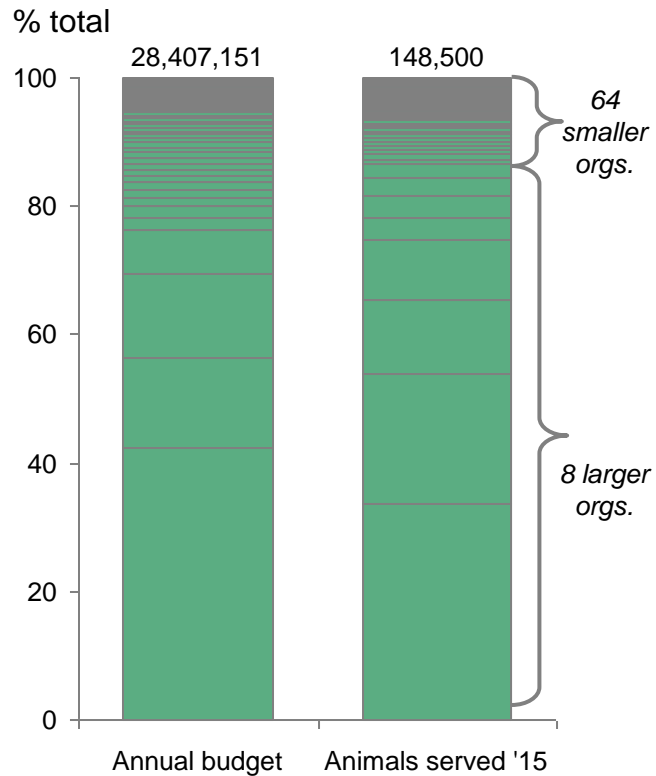
Collects loose dogs directly from the street



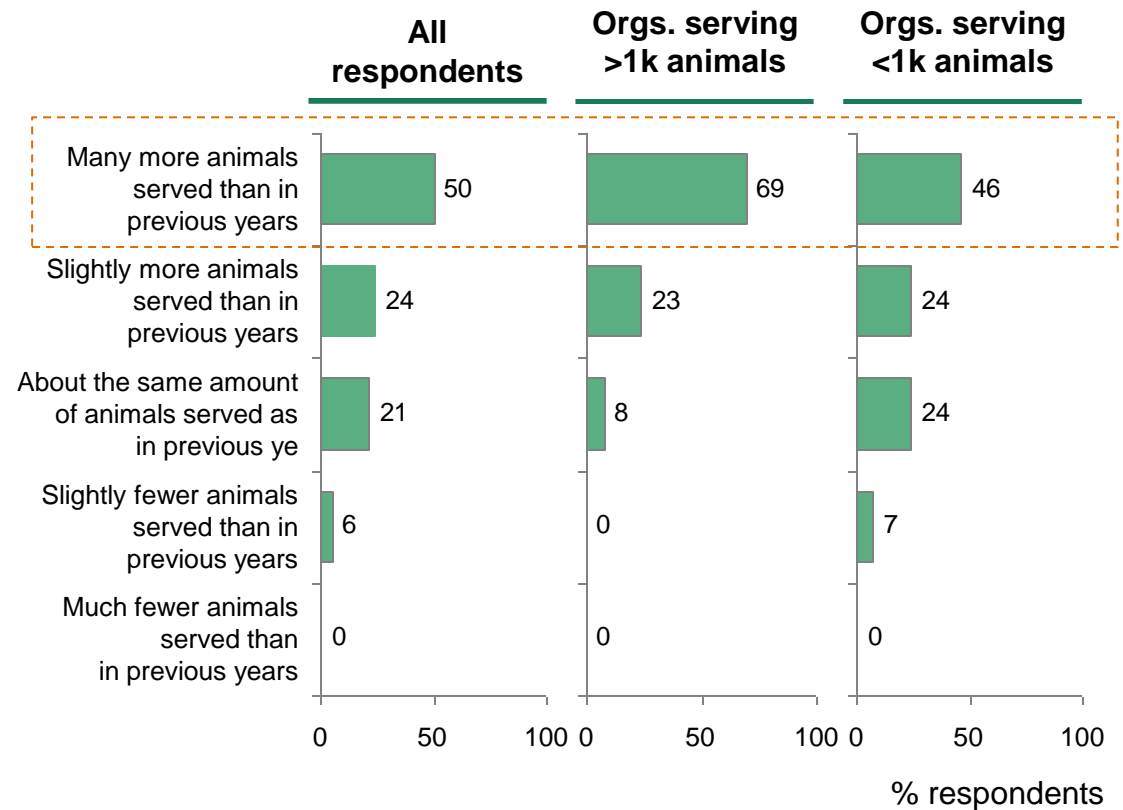
Fosters dogs from DAS until they are adopted

Animal orgs. have significant and growing capacity

\$28MM+ in annual budget to serve 148k+ animals



Majority are growing



Question: What is the annual budget for your organization? (n=72); Question: Approximately how many animals did your organization impact in 2015 through fostering, boarding, owner education, etc? (n=72); Question: How has your organization changed over the last three years in terms of how many animals it has impacted through fostering, boarding, owner education, etc.? (n=72);

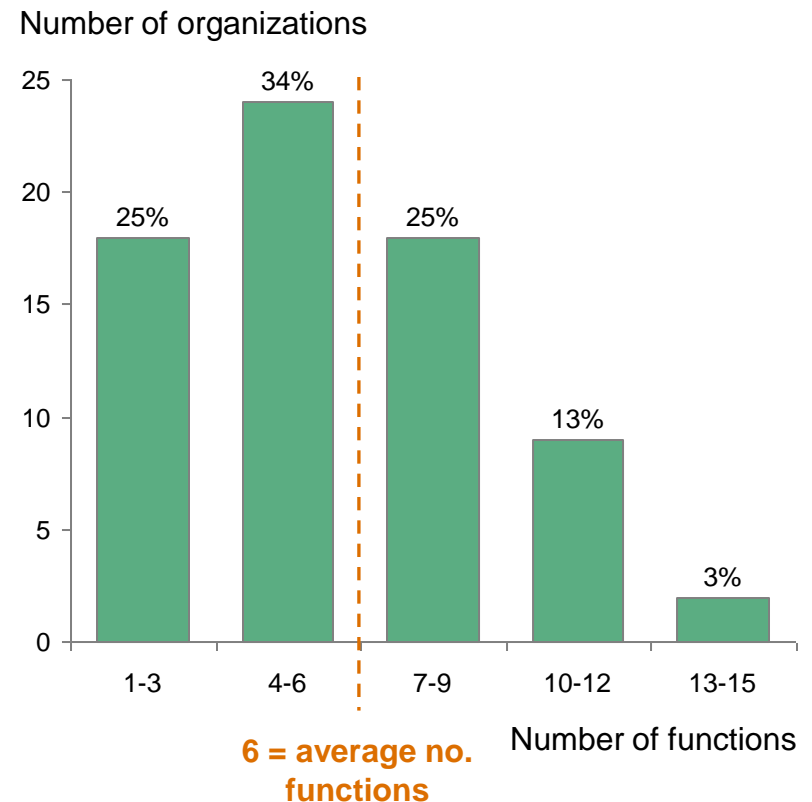
Source: Rescue and Animal Organization survey (n=72), BCG analysis

Organizations overlap across multiple missions...

Animal organizations have 15+ missions

1. Place animals with new owners through **adoption**
2. Operate a network of **foster** homes
3. Provide **pet ownership education**
4. Rescue **strays** directly from the streets
5. **Transport** animals to different cities and states
6. Provide **financial support** to pet owners in need
7. **Advocate** for animal-related legislative issues
8. Provide **low-cost behavioral training**
9. Perform discounted **spay and neuter**
10. Operate a **shelter** for animals
11. **Other**: humane investigations, emergency rescue
12. **Trap-neuter-release**
13. Host **vaccination clinics**
14. Host **microchip clinics**
15. Provide **low-cost veterinary care**
16. Go **door-to-door** in some communities to offer education, spay and neuter information, pet care etc.

On average, one organization participates in 6 different missions



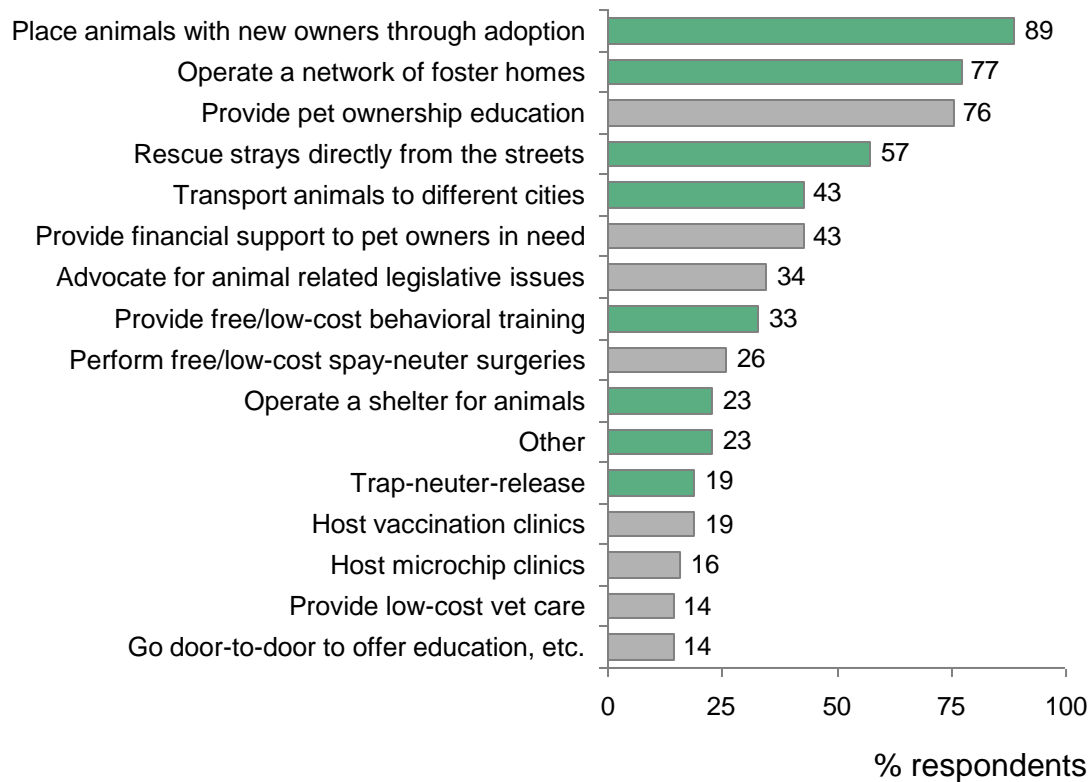
Question: Which of the following activities does your organization participate in? (n=71)

Source: BCG rescue survey (N=72), BCG analysis

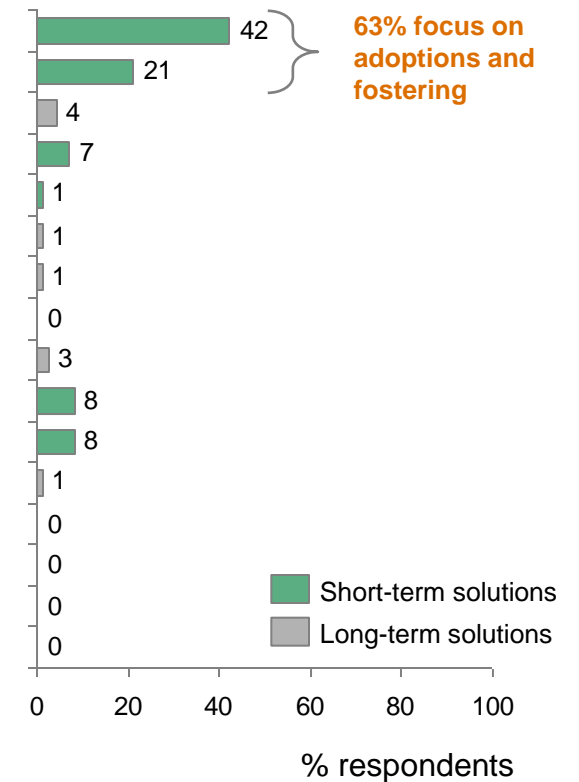
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Most perform functions related to immediate positive outcomes for dogs rather than long-term solutions

Orgs. perform multiple functions



Orgs. focus on similar functions



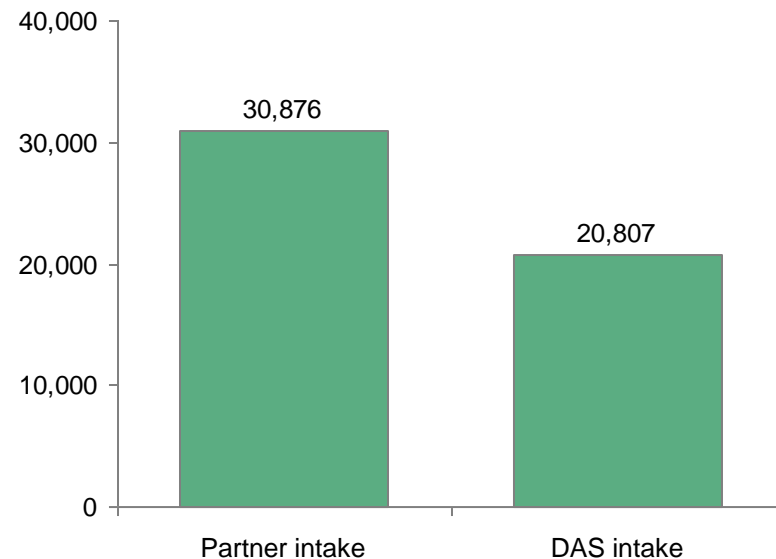
Question: Which of the following activities does your organization participate in? (n=71); Question: Which of the following activities is your primary focus? (n=71)

Source: Rescue and Animal Organization survey (n=72), BCG analysis

Rescue orgs. have annual dog intake of 30k and the ability to hold 4k dogs on any given day

In 2015, rescue dog intake was 30k

2015 dog intake

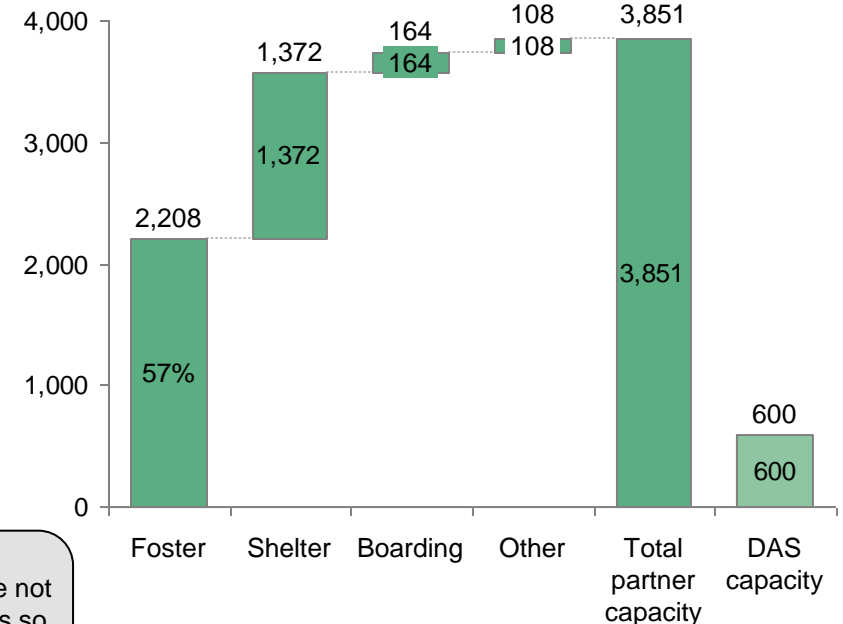


	Partner intake	DAS intake
Avg. length of stay	~8 weeks ¹	~1 week
Avg. cost/dog	~\$443 ¹	~\$440

Rescues are not open access so dogs can stay with them longer

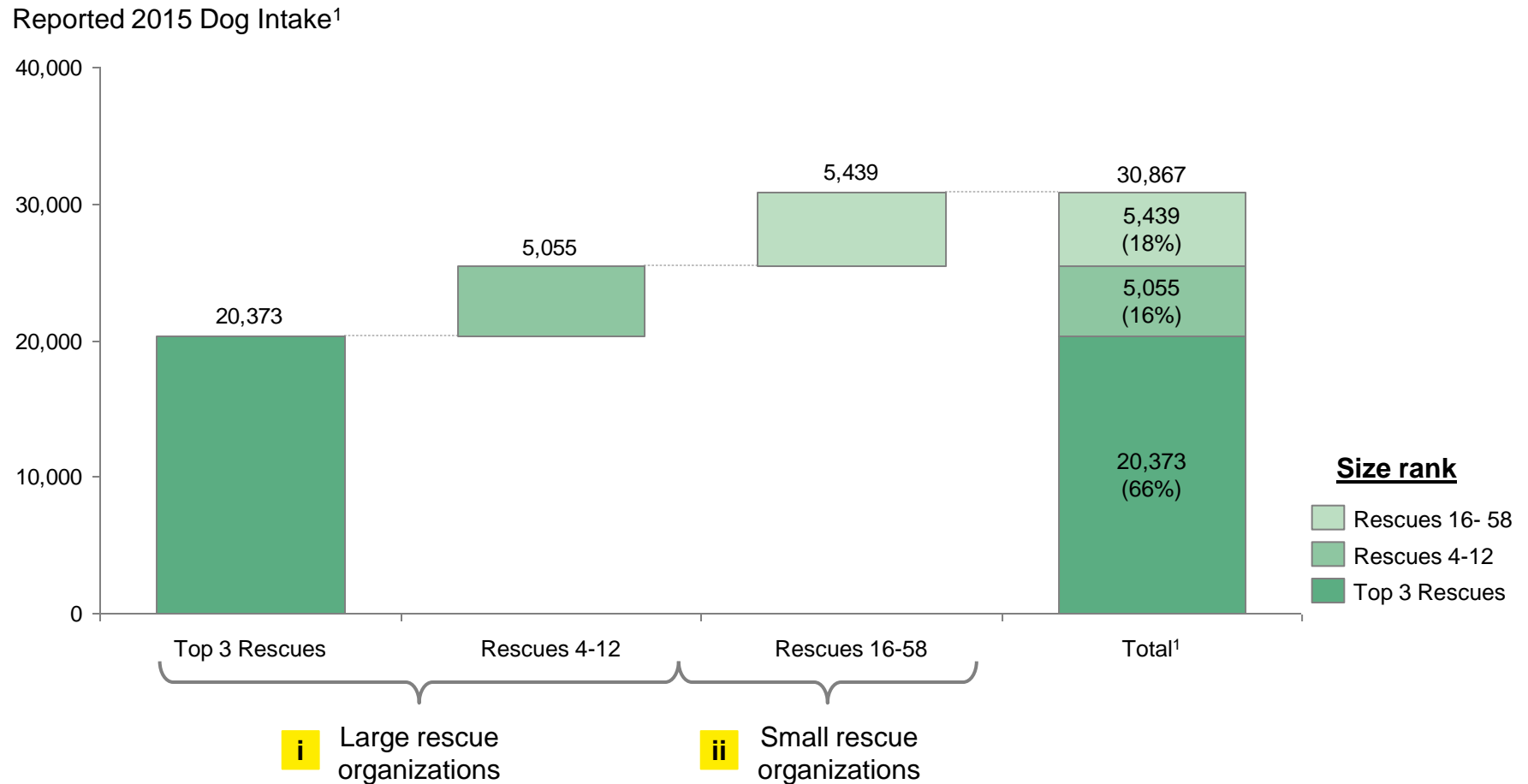
At any one time, rescue have ~4k dogs

Current capacity



1. See below for questions. Includes average of all 57 organizations that answered the question; Question: Approximately how many dogs did your organization take in during 2015? (n=58); Question: On average, on any given day, how many total dogs do you have in your organization? (n=57); Question: On average, how many weeks is a dog with your organization before it leave (is adopted, transferred, etc.? (n=57); Question: What is the average cost of stay for a dog in your organization including medical, food, etc.) before it leaves? (n=57)
Source: Rescue and Animal Organization survey (n=72), DAS Chameleon database, BCG analysis

Dallas rescue organization landscape concentrated with large organizations rescuing majority of dogs



1. Includes all rescue organizations that took the Rescue and Animal Organization Survey; Question: Approximately how many dogs did your organization take in during 2015? (n=58); Note: Gini coefficient is .76; Note: Large rescue organizations defined as having 2015 intake > 400

Source: Rescue and Animal Organization survey (n=72), BCG analysis

Rescue organizations want more funding, volunteers, and public awareness to grow

Orgs. want more funding...

Organizations need more funding to cover medical costs

- "In other words, more financial resources"
- "More funding to help with medical cost"
- "Reduced or waived adoption fees would help. When we take dogs, we adopt them from the shelter. We get all of their vetting for the adoption fee, which is a GREAT deal, but pulling 20—30 dogs at a time is still expensive. "

...And more capacity through fosters

Organizations want to grow their foster base to grow their capacity

- "As with most rescue groups, we need dedicated fosters"
- "Most of our marketing budget is spent on trying to attract new fosters"
- "More foster homes and we would love to rent/build a facility so we can rescue even more animals. That would give us the ability to pull faster while waiting for a foster home to open up"

There is a desire to find "permanent" fosters for the dogs that are un-adoptable

- "The biggest concern is that many of our rescues are seniors and special-needs dogs that become permanent fosters (sanctuary dogs). They place the average stay time much higher than would otherwise be the case, and make it impossible for those fosters to take any new/other dogs. If there were more organizations specifically geared to sanctuary and senior care we could take more animals"

Public awareness could increase impact

Some orgs feel that the public is not aware of their missions

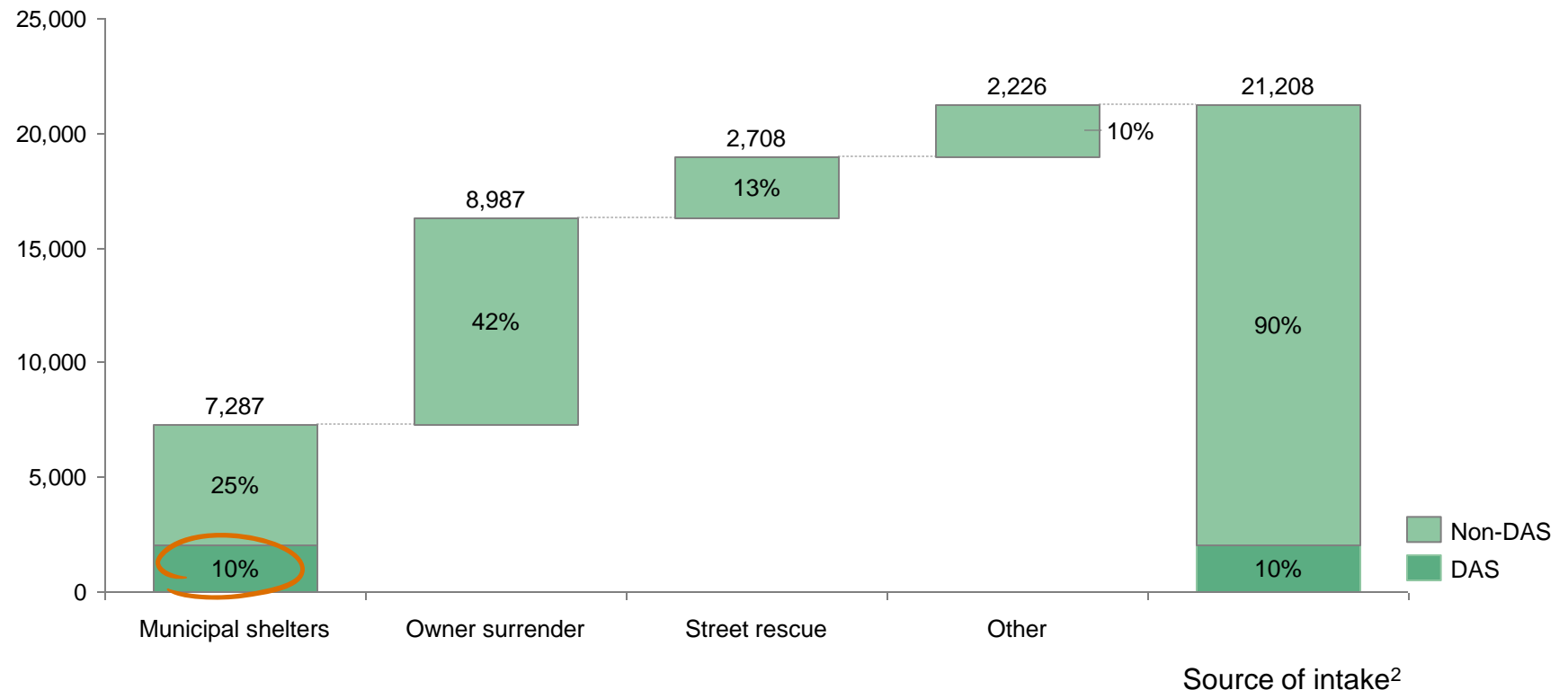
- "More networking. Not many people know [we are] here. We are overshadowed by the SPCA of Texas' funding and networking."

More publicity could increase funding, volunteers, and positive outcomes for animals

- "More publicity. Getting the dogs out in front of people who can adopt them"

Rescue organizations take 35% of all of their intake from municipal shelters—10% from DAS and 25% from other shelters

Reported Jan-July 2016 dog intake of rescue orgs.¹



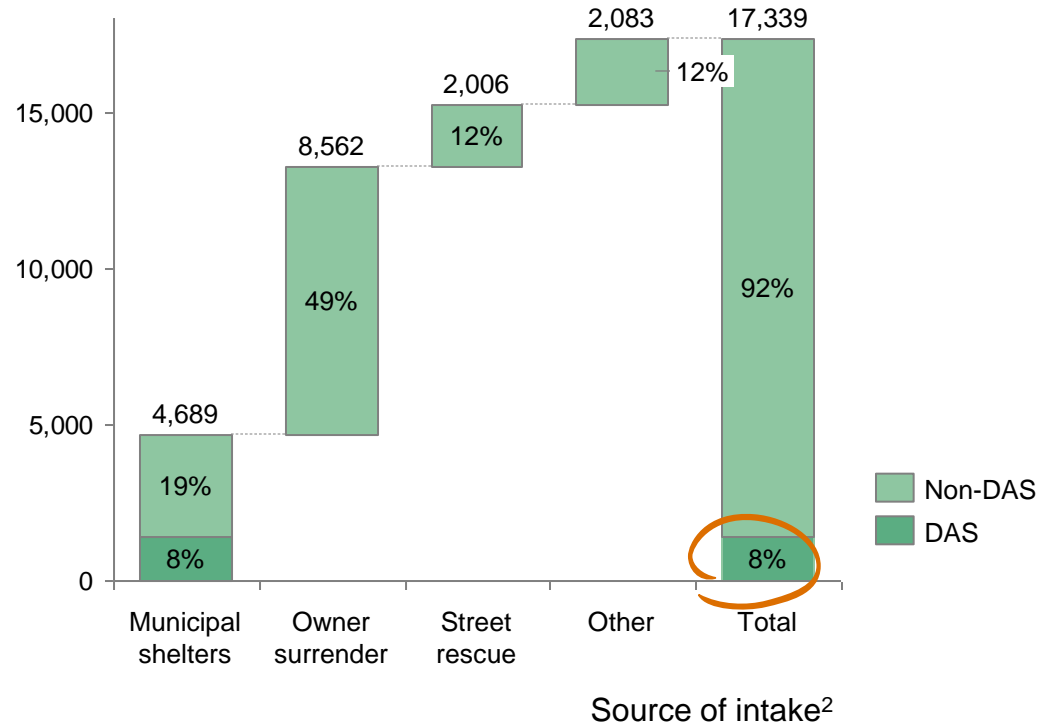
1. According to rescue survey, 58 orgs. have had a total intake of 21,208 as of the time of this survey; Question: What percentage of your 2016 intake came from [source].... (n=48)

Source: Rescue and Animal Organization survey (n=72), BCG analysis

Large rescues get 8% of their dogs from DAS, small 17%

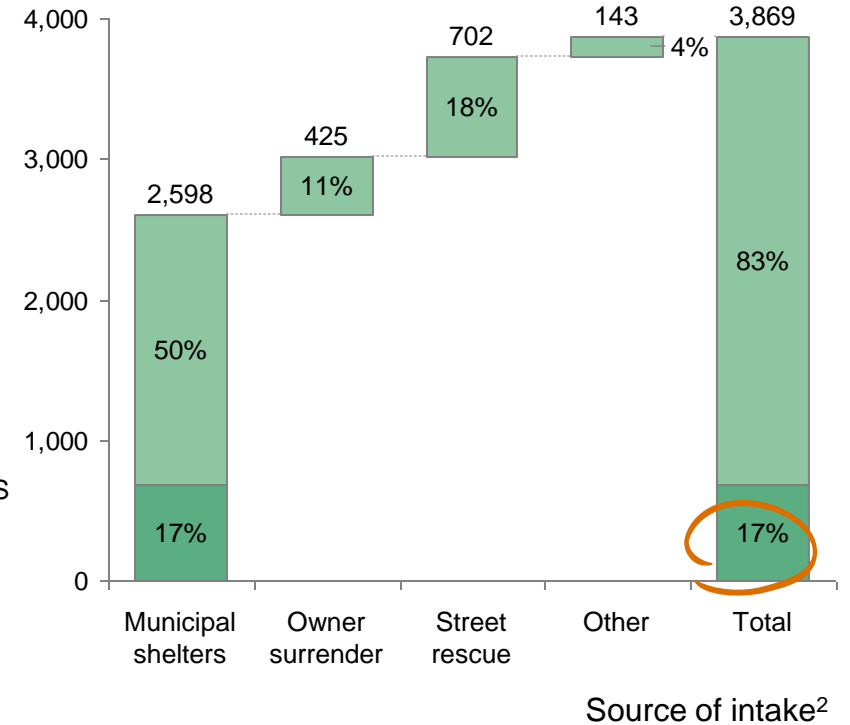
i Large rescues pull 8% dogs from DAS

Reported Jan. - Jul. 2016 dog intake of large rescue orgs.¹



ii Small rescues pull 17% dogs from DAS

Reported Jan. - Jul. 2016 dog intake of small rescue orgs.¹

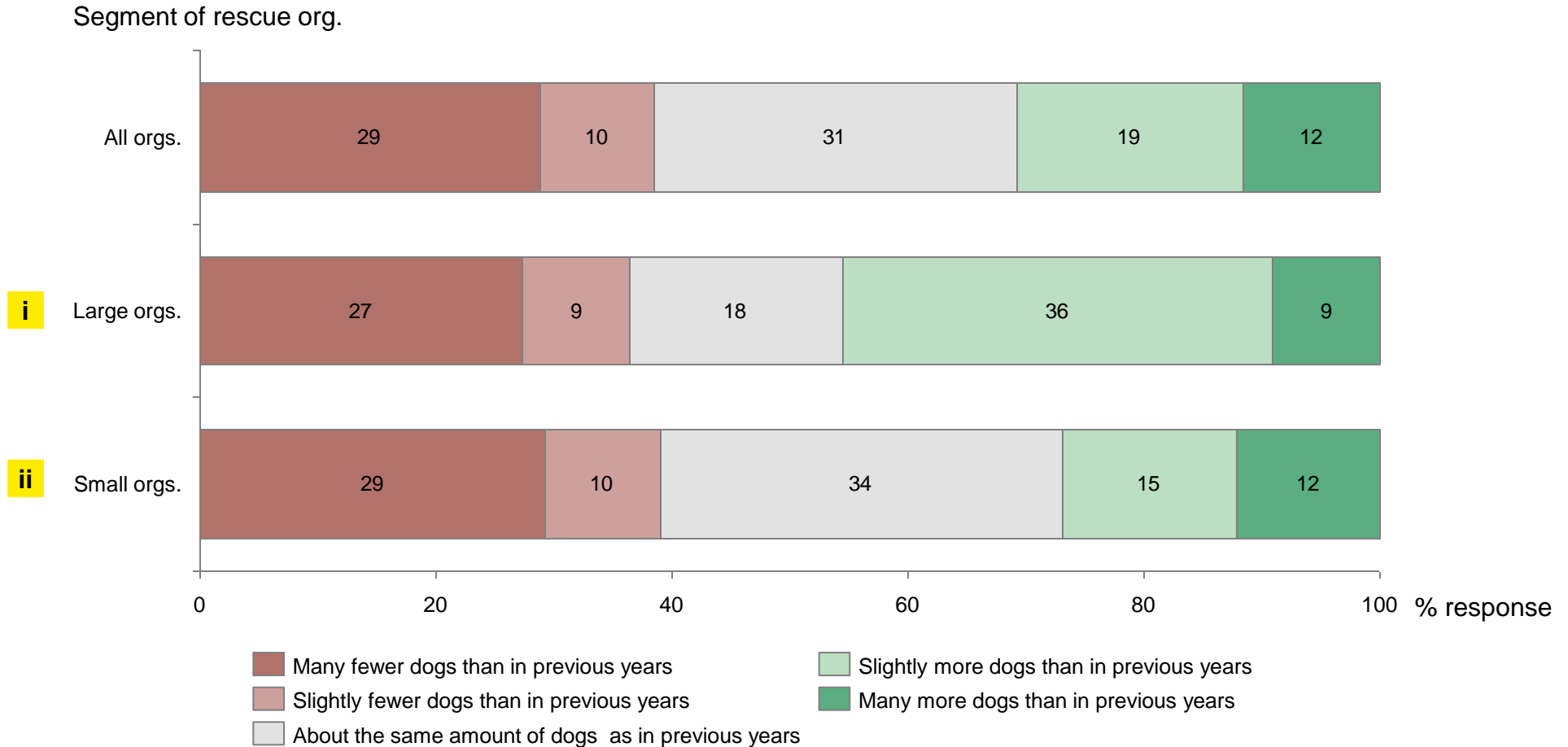


1. According to rescue survey, 58 orgs. have had a total intake of 21,208 YTD; Note: Large rescue organizations defined as having 2015 intake > 400; Question: What percentage of your 2016 intake came from [source].... (n=48)

Source: Rescue and Animal Organization survey (n=72), BCG analysis

~40% orgs. have decreased intake from DAS; 30% have increased

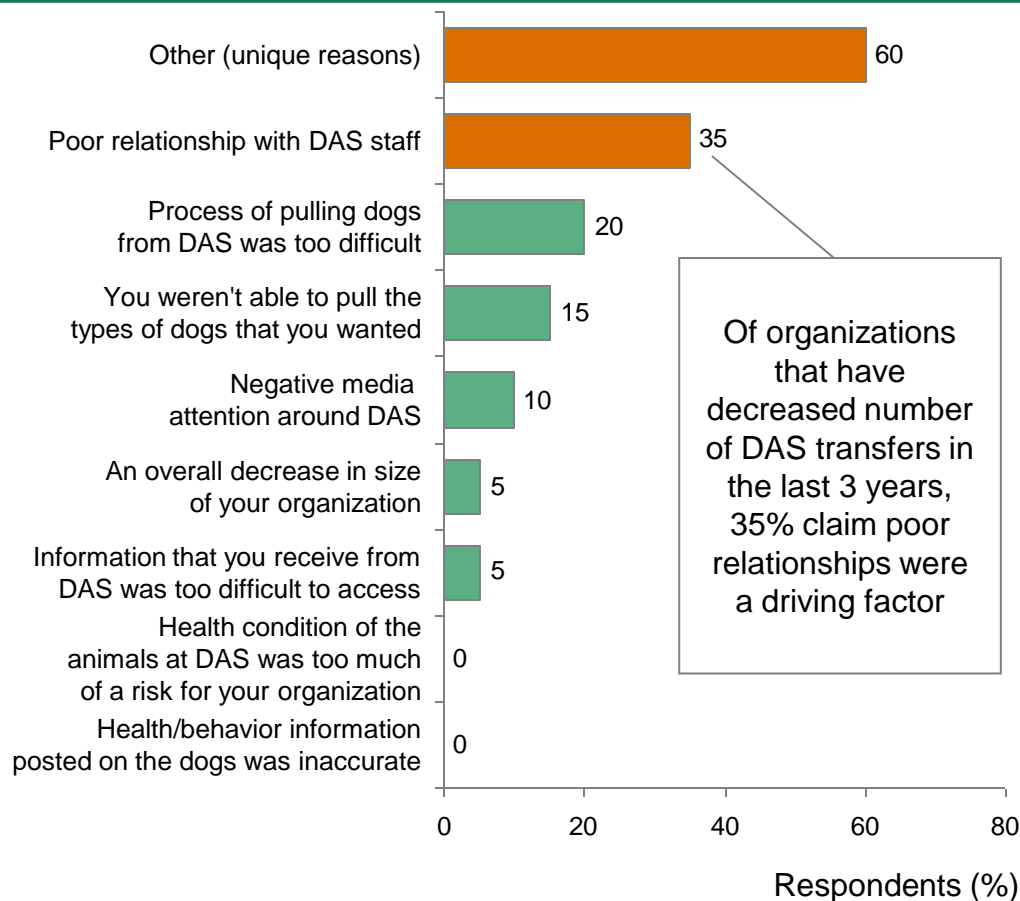
How has the total number of dogs you have pulled from Dallas Animal Services changed in the past 3 years?



Question: How has the total number of dogs you have pulled from Dallas Animal Services changed in the past 3 years? (n=52); Note: Large organizations defined as having >400 dog intake in 2015; Source: Rescue and Animal Organization survey (n=72), BCG analysis

Unique reasons and personal relationships most frequent causes for decrease in DAS transfers

Factors causing decrease in DAS transfers



Unique reasons

"We focus efforts in Grayson County"

"Greater need in surrounding areas and fewer rescues working with those facilities; DAS seems to have some very large groups who have picked up the slack"

"They don't respond to emails or phone messages"

"Other groups pulling [the specific breed] first"

"I can't get certificates of sterilization from DAS"

"I got behind on sending in proof of spay and neuter and just don't have the time to do all that paperwork"

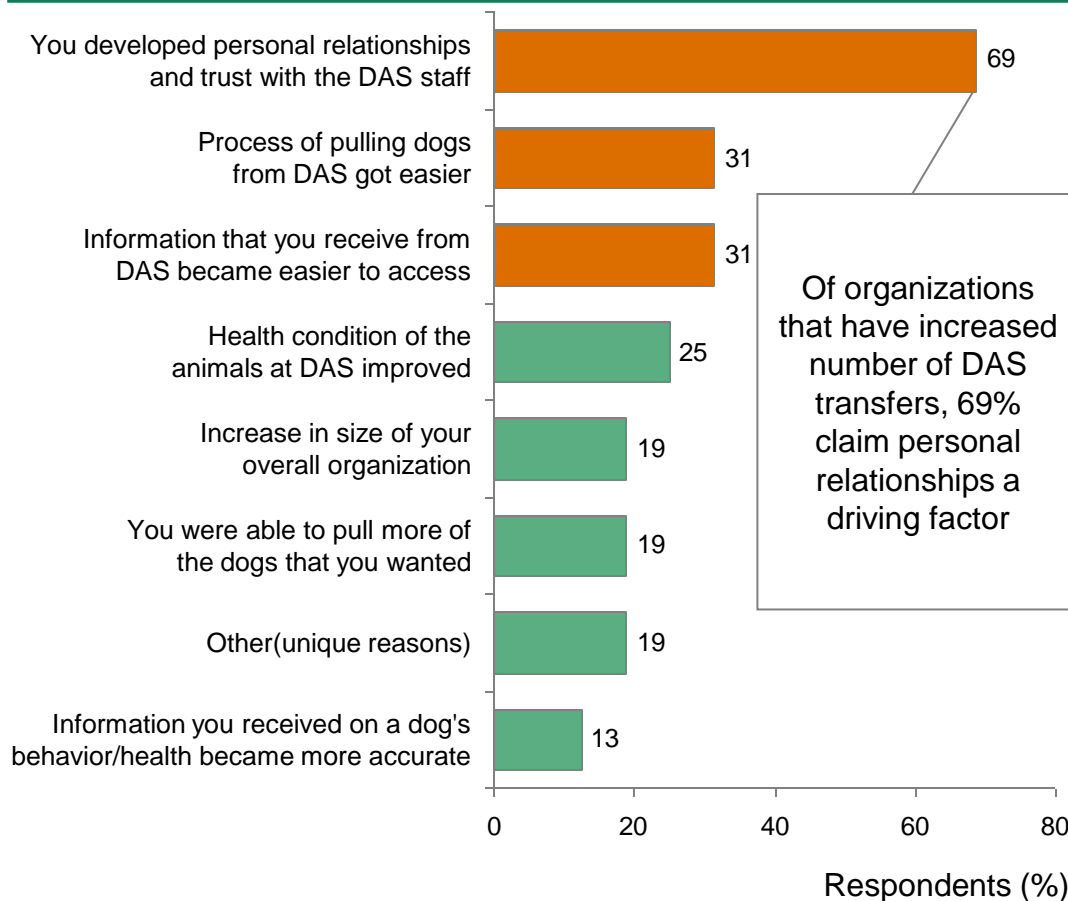
Question: What factors have most contributed to the decrease in the number of dogs you pulled from DAS? (n=20)

Source: Rescue and Animal Organization survey (n=20), BCG analysis

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Personal relationships, easier processes, and access to info most common causes for increase in DAS transfers

Reasons for increasing DAS transfers



Other unique reasons

"We were granted extra time by Danielle to get a foster in place which helped tremendously"

"The ability to transport out of state"

"Fantastic volunteers... [they have] helped [us] by notifying us of Labs in the shelter"

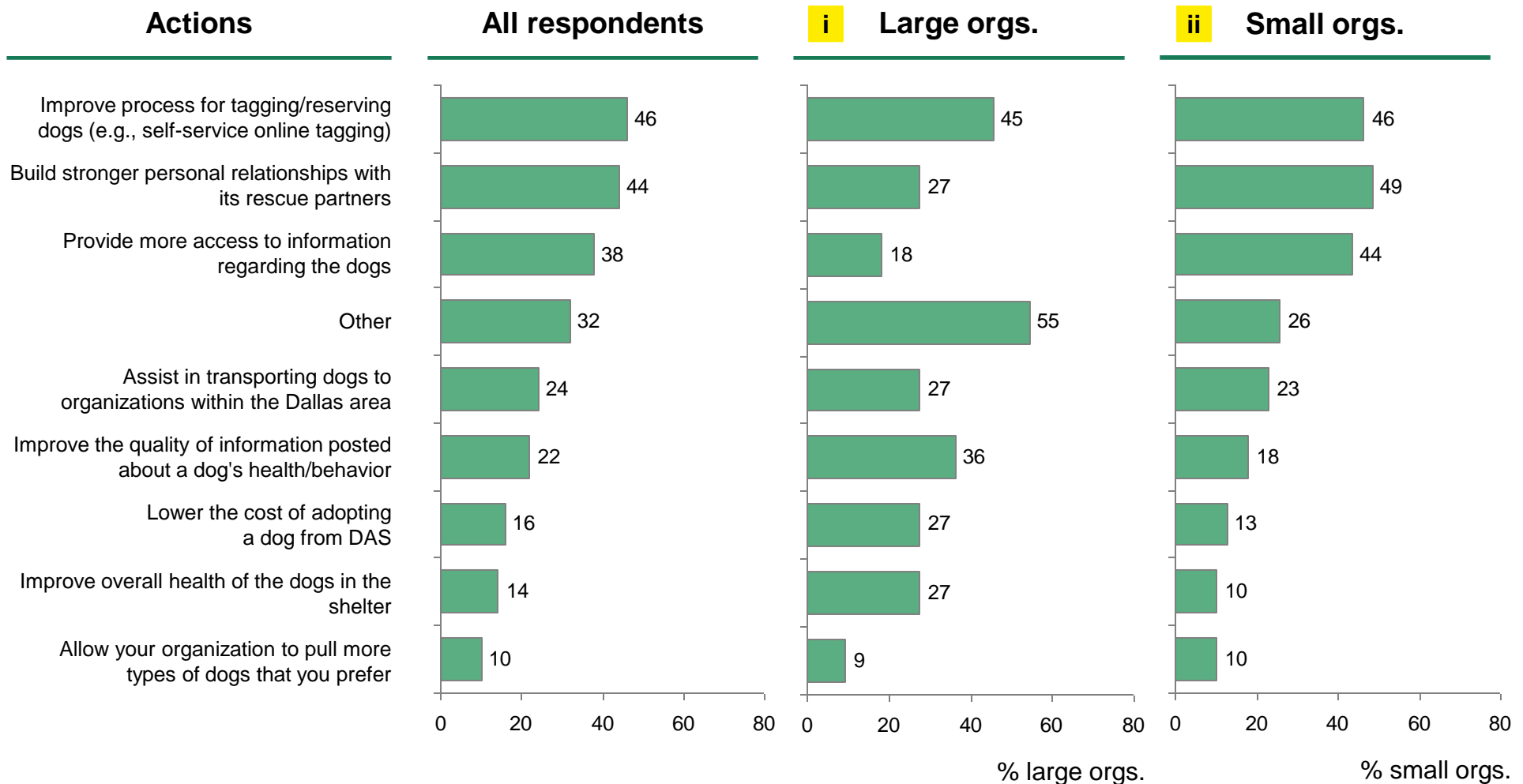
Question: What factors have most contributed to the increase in the number of dogs you pulled from DAS? (n=16)

Source: Rescue and Animal Organization survey (n=72), BCG analysis

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Respondents indicated better processes, relationships, and information on dog can increase DAS transfers

Choose up to three changes that DAS can make to get you to pull more dogs from DAS



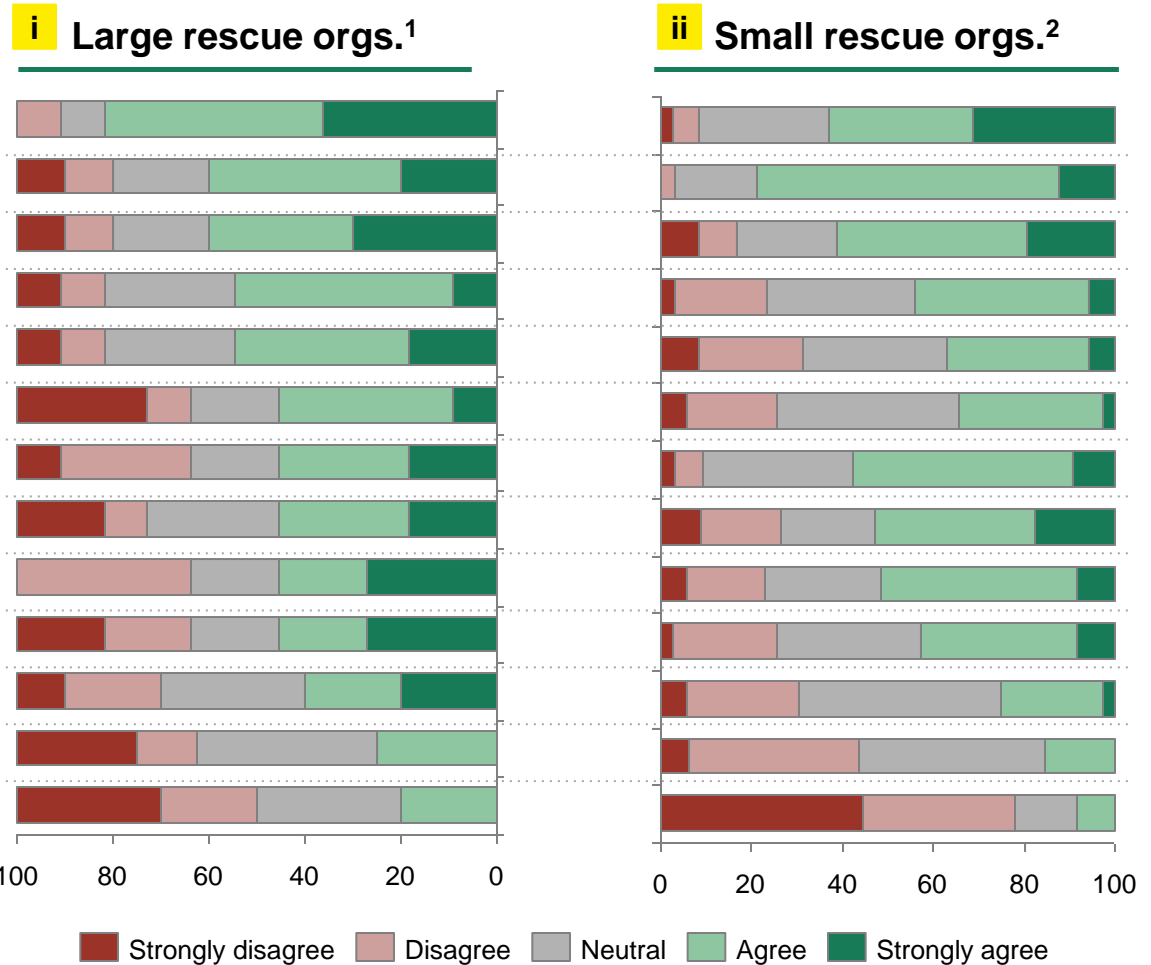
Question: Choose up to three changes that DAS can make to get you to pull more dogs from DAS (n=52); Note: Large organizations defined as having >400 dog intake in 2015

Source: Rescue and Animal Organization survey (n=72), BCG analysis

20160826_BCG_DallasDog_WorkingMaterials_vPublic.pptx

Detail: Customer satisfaction scores for large vs. small rescues

Q: Please rate the following statements about Dallas Animal Services



1. N=11; 2. N=41; Question: Please rate the following statements about Dallas Animal Services (n=52); Note: Large organizations defined as having >400 dog intake in 2015; Note: Excludes "no opinion"; Source: Rescue and Animal Organization survey (n=72), BCG analysis

Many rescue orgs. have seen improvement in DAS but still want more leadership

Many rescues noted that DAS has improved and has a good transfer coordinator

Rescues noticed a recent improvement

- "In the last 3 years DAS has improved dramatically, not only with its "live release rate", but by building relationships with legitimate rescue organizations"
- "We are starting to focus more of our efforts with DAS due to the cleanliness of the facility, the quick processes and decent vetting."

Rescues pointed to current transfer coordinator as a strength and a resource that is needed

- "I work with both transfer coordinators to rescue dogs from DAS. The process has become easier to deal with recently."
- "[The transfer coordinator] is so great to work with! She allows us to come in and always helps us pull animals."
- "transfer coordinator... is AMAZING. When she is off, emails sometimes go unanswered and it is much more difficult for us to tag dogs at the speed that is required to ensure a dog is not euthanized. ...The need is there for at LEAST 2 people to do it full time. They need to approve new groups applying to rescue, evaluated and network the dogs, etc."

Some rescues pointed to the need for better leadership

Identified a need for stronger leadership at DAS

- "DAS is seriously lacking in direction from leadership. ...Who is actually running the facility? No one seems to know the answer."
- "DAS is severely underfunded and without leadership that makes rescue easy. If the transfer coordinator is not involved, the process to pull for rescue is not well known."

Question: Do you have anything else you would like to say about your satisfaction with Dallas Animal Services (n=54)

Source: Rescue and Animal Organization Survey (n=72), BCG analysis

20160826_BCG_DallasDog_WorkingMaterials_vPublic.pptx

Rescue orgs. want clearer transfer guidelines and more access to better info on dogs

Orgs. asked for clearer guidelines

Orgs. have noticed preferential treatment of some transfer partners

- "To be fair, we don't normally seek out dogs from the shelter as it appears that only a few rescue groups are given priority to pulling dogs and we assume, though not proven to us, that it would be difficult to join in to pull dogs as quickly and easily as smaller shelters that have developed a personal relationship with us"
- "There is a group who gets preferential treatment. Example: they can tag dogs earlier after the stray hold than other groups because they're expected to pull more. They don't pull more, but still have that benefit. "

In order to address preferential treatment, need to have state guidelines around transfers

- "They need to have stated policies and allow first come, first take."

And want more access to better info on dogs

Rescues want more access to more information on dogs

- "We need more information about the dogs in a timely manner"
- "I would like to see DAS use their computer system more. There is so much flexibility that isn't being used. The intake computer doesn't talk to the sterilization desk who doesn't communicate with the internal system. things are disseminated via sticky notes and by word of mouth - not acceptable"

Organizations also want to know when dogs are euthanized

- "I think DAS tries hard by the Urgent Transfer Partner page but we need to know how much time they actually have if possible."
- "My biggest complaint is not having easy access to the urgent immediate need or the medical need dogs. Also having a fully vetted dog and pledges would help."

Question: Do you have anything else you would like to say about your satisfaction with Dallas Animal Services (n=54)

Source: Rescue and Animal Organization Survey (n=72), BCG analysis

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Appendix: Dallas Community Survey

Interview Guide: Dallas Community Survey

Loose Dog Sightings

- 1.1 Approximately how often do you see a loose dog in your neighborhood?
- 1.2 Approximately how often do you see packs (groups) of 3 or more loose dogs?
- 1.3 I am comfortable with the current number of loose dogs in my neighborhood.
- 1.4 I believe loose dogs are a safety problem in my neighborhood.
- 1.5 I believe there are more loose dogs today than one year ago.
- 1.6 What do you believe is the main cause of loose dogs in your neighborhood?

Loose Dog Reporting

- 2.1 When I see a loose dog, I usually report it to 311 or 911.
- 2.2 When I report a loose dog to 311, I believe that it is quickly and effectively dealt with.
- 2.3 If it were easier to report loose dogs, I would notify the city more often.
- 2.4 If the city responded to my loose dog reports better, I would notify the city more often.
- 2.5 When you do not report loose dogs to 311, what is the primary reason?

Preferences

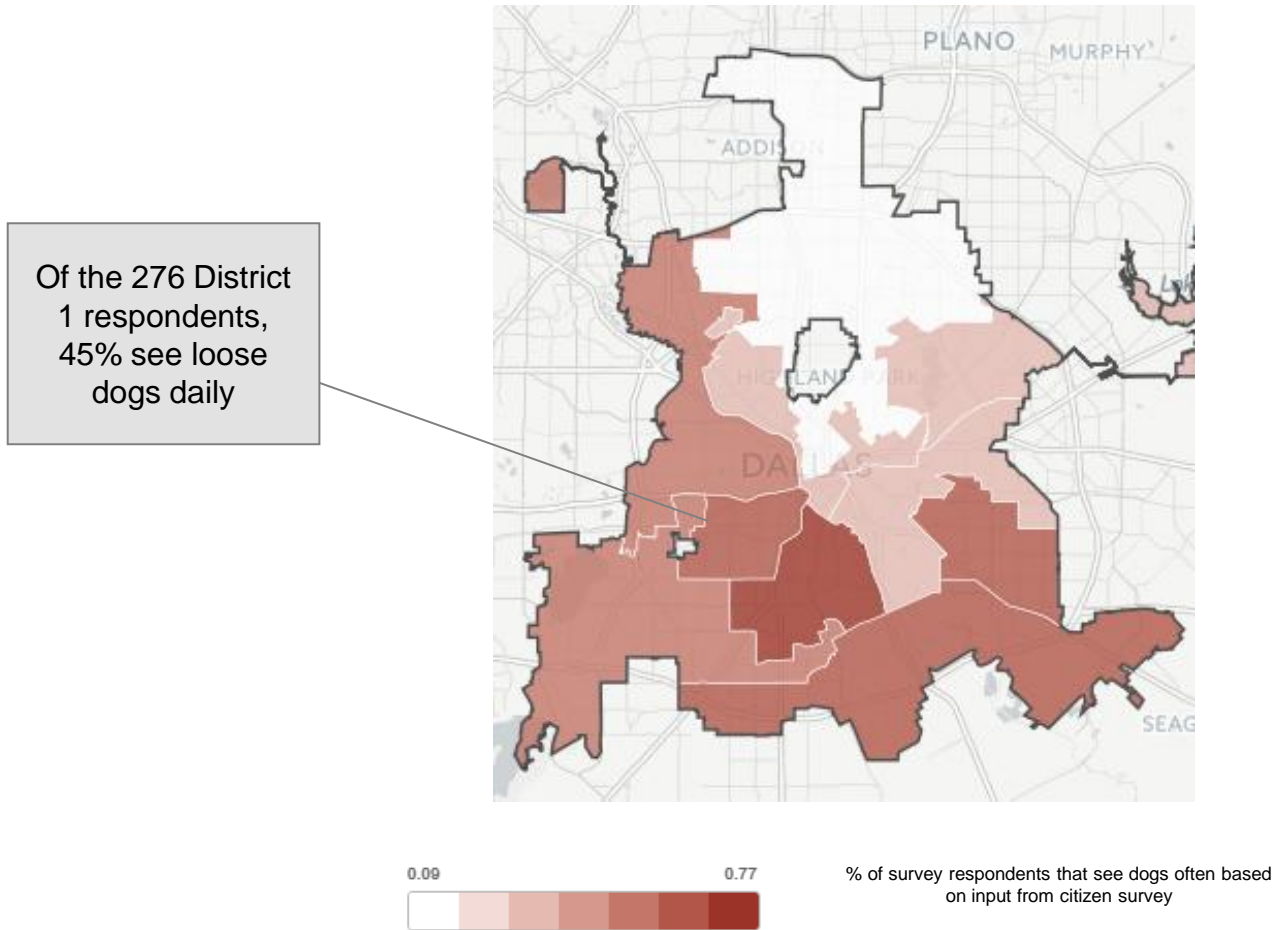
- 3.1 I would be in favor of picking up all loose dogs no matter what happens to the dog (even if some must be put down).
- 3.2 I would be in favor of picking up all loose dogs if no dogs or only very sick/aggressive dogs are put down.
- 3.3 If offered, I would allow the city to set a loose animal trap on my property (to catch the loose dogs).
- 3.4 It is important for the city to have programs and services that contribute to animal welfare.
- 3.5 It is important that the city investigate and prosecute animal cruelty.

Demographics

- 4.1 Please enter your address (or a nearby address or intersection).
- 4.2 Do you live in Dallas?
- 4.3 What is your racial or ethnic background?
- 4.4 What is your household income?
- 4.5 Do you work or regularly volunteer at an animal shelter, rescue organization, or other animal welfare group?

Survey respondents in southern Dallas see dogs more often than the north

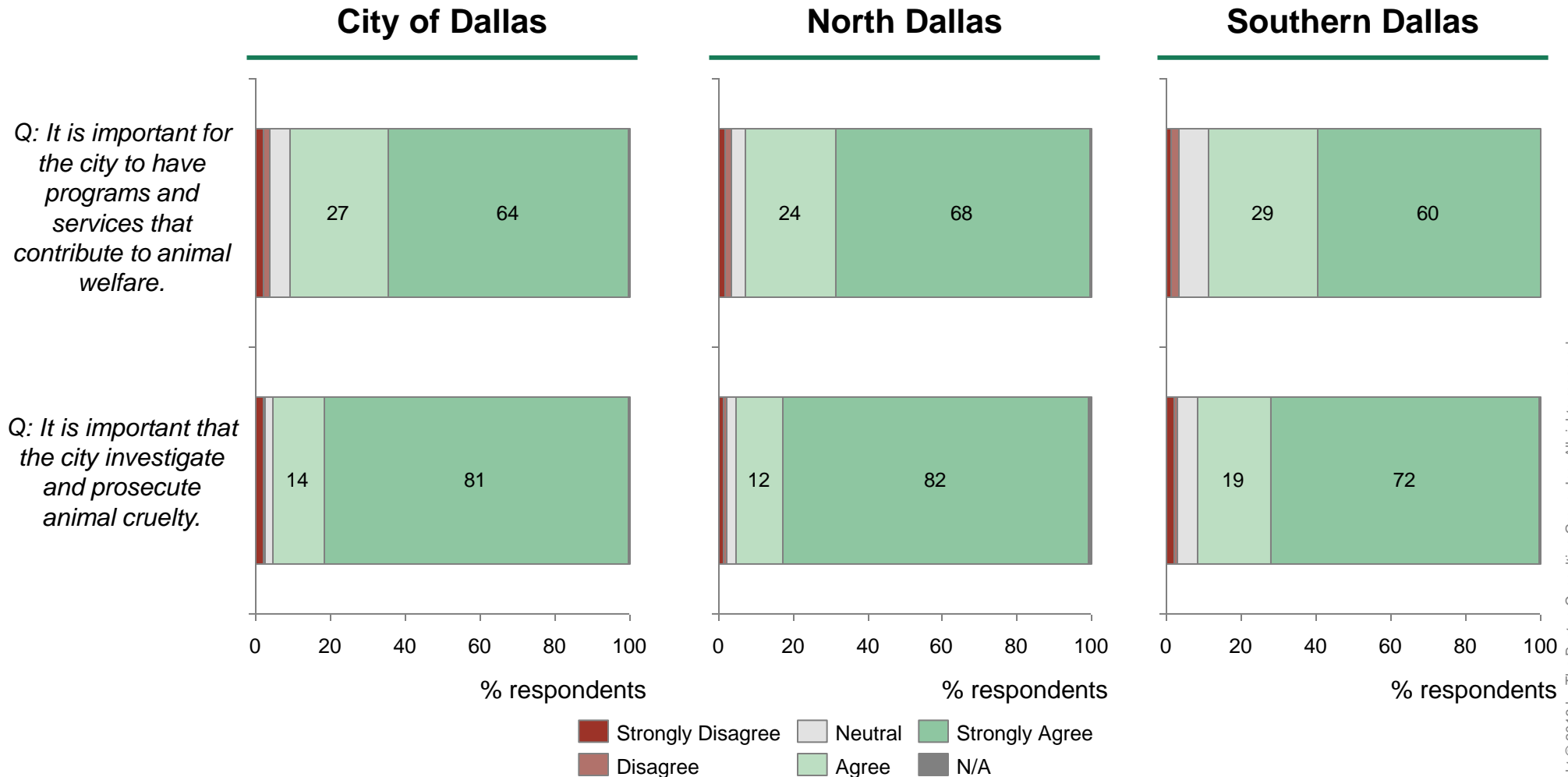
Results are based on open access survey and subject to participation bias. Duplicate responses removed.



Note: Q: *Approximately how often do you see a loose dog in your neighborhood?* Often is at least once per day. ; Note: Only used residents that provided addresses. All n=2594. North Dallas n=665. southern Dallas n=299; Source: Community Survey June 2016, BCG analysis

Beliefs regarding dogs: Public views animal welfare and a priority for city

Results are based on open access survey and subject to participation bias. Duplicate responses removed.



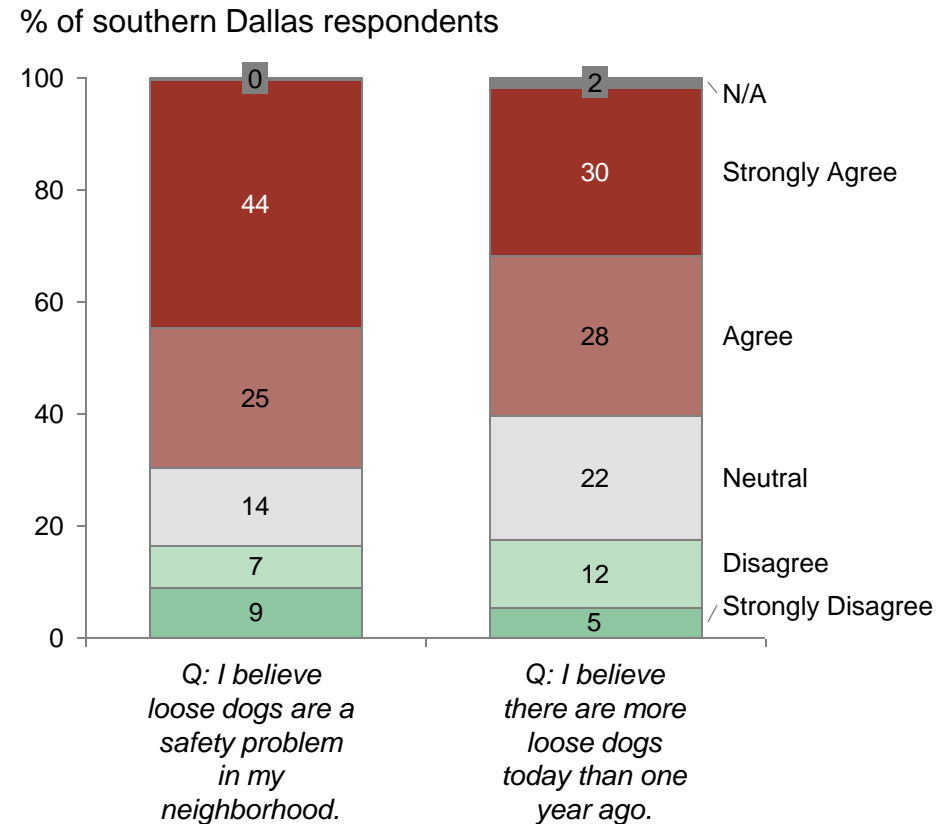
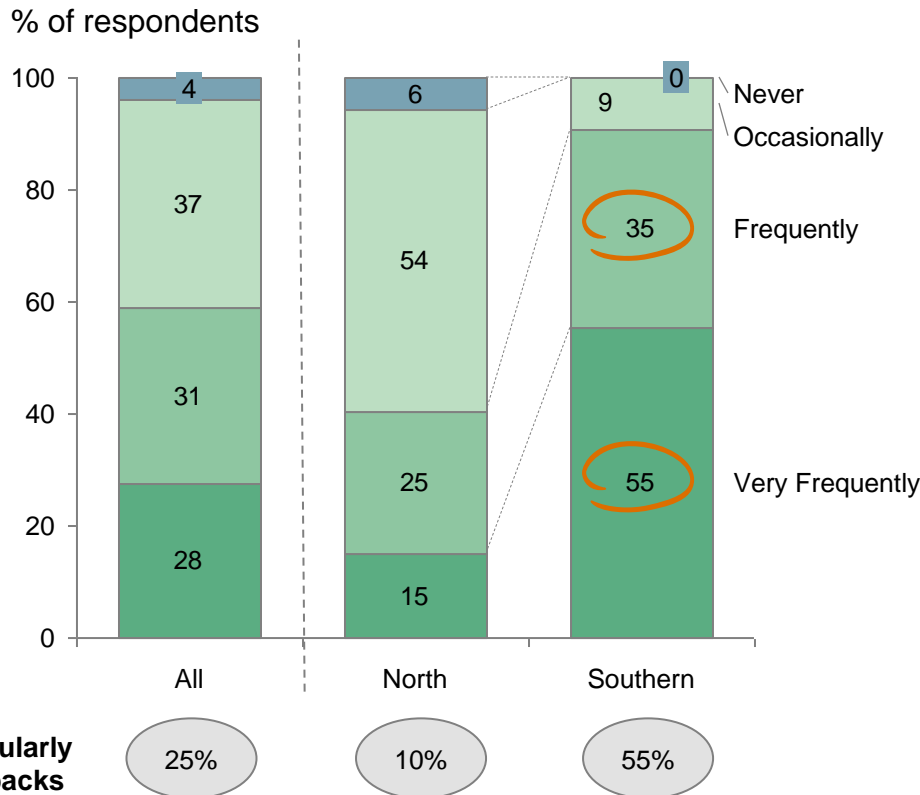
Note: I-30 used to separate North from southern Dallas. North Dallas includes districts 2,6,9,10,11,12,13,14. Southern Dallas includes districts 1,3,4,5,7,8. Only used residents that provided addresses. All n=2673. North Dallas n=1222. Southern Dallas n=637; Source: Community Survey June 2016, BCG analysis

Southern Dallas residents cite high frequency of loose dogs, which are perceived to be a threat in public survey

Results are based on open access survey and subject to participation bias. Duplicate responses removed.

~90% of southern Dallas residents see loose dogs frequently

Southern Dallas residents perceive loose dogs to be dangerous and growing



Note: Frequently is at least once per week. Very Frequently is at least once per day; Note: 1-30 used to separate North from southern Dallas. North Dallas includes districts 2,6,9,10,11,12,13,14. Southern Dallas includes districts 1,3,4,5,7,8. Only used residents that provided addresses. All n=2673. North Dallas n=1222. Southern Dallas n=637

Source: Community Survey June 2016, BCG analysis

20160826_BCG_DallasDog_WorkingMaterials_vPublic.pptx

Loose dog sightings: Southern Dallas residents perceive loose dogs to be dangerous

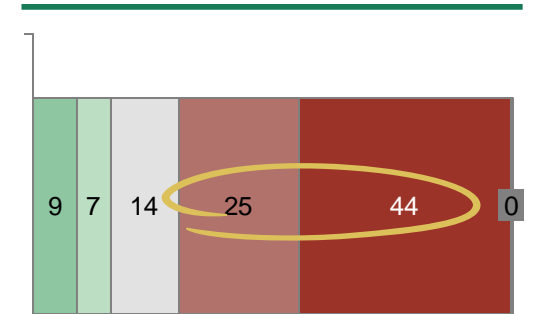
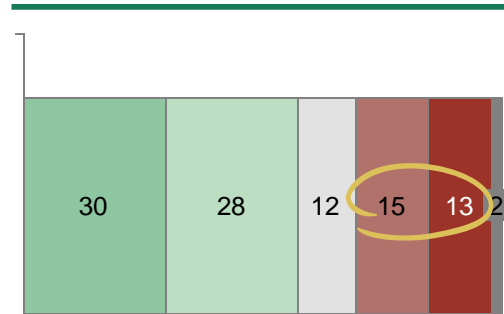
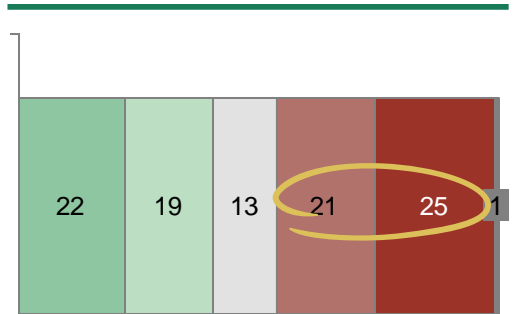
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City of Dallas

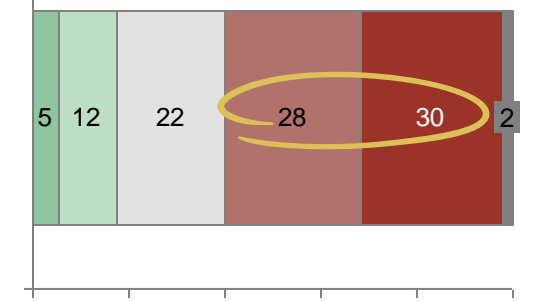
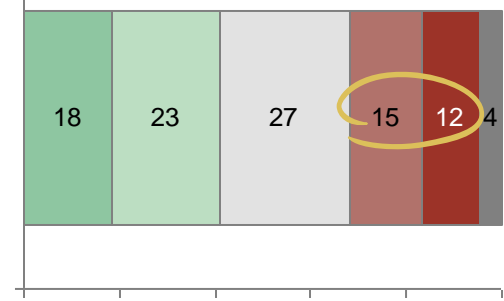
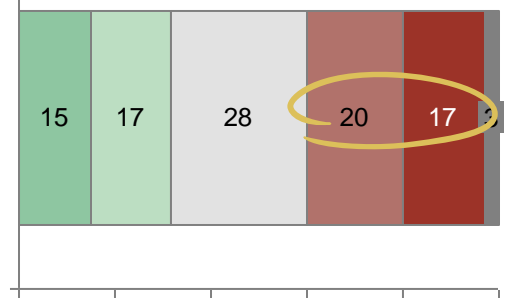
North Dallas

Southern Dallas

Q: I believe loose dogs are a safety problem in my neighborhood.



Q: I believe there are more loose dogs today than one year ago.



0 20 40 60 80 100

0 20 40 60 80 100

0 20 40 60 80 100

% respondents

% respondents

% respondents

■ Strongly Disagree ■ Neutral ■ Strongly Agree
■ Disagree ■ Agree ■ N/A

Note: I-30 used to separate North from southern Dallas. North Dallas includes districts 2,6,9,10,11,12,13,14. Southern Dallas includes districts 1,3,4,5,7,8. Only used residents that provided addresses. All n=2673. North Dallas n=1222. Southern Dallas n=637; Source: Community Survey June 2016, BCG analysis

Loose dog reporting: Reporting behaviors varies, residents will report if it were easier and city responded

Results are based on open access survey and subject to participation bias. Duplicate responses removed.

City of Dallas

North Dallas

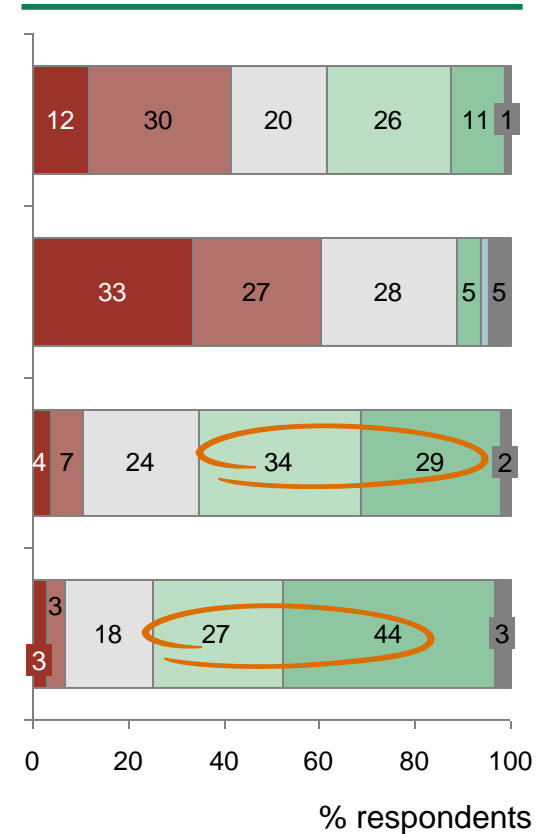
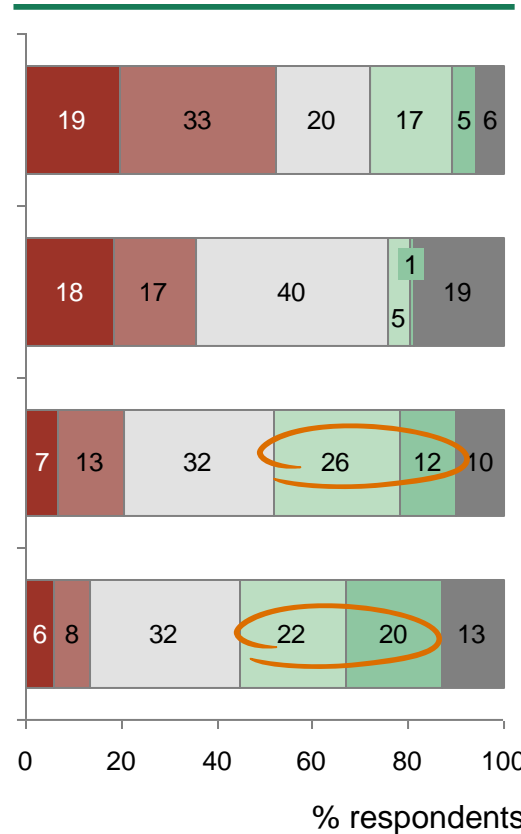
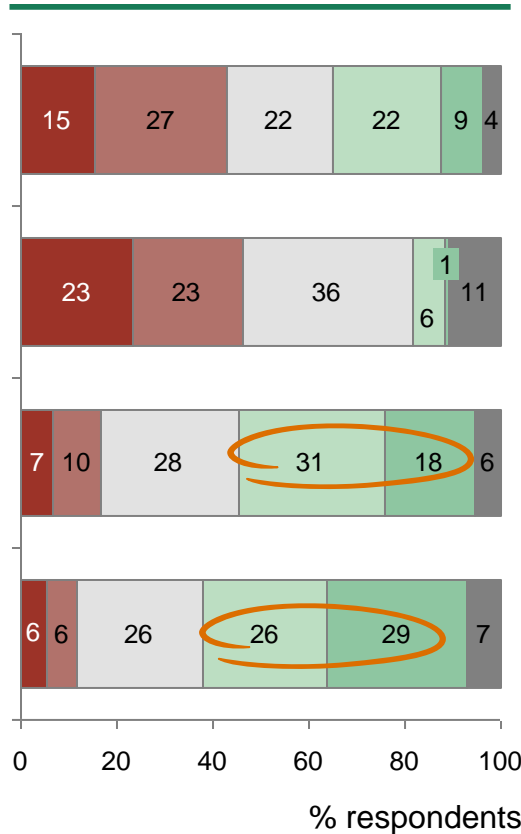
Southern Dallas

Q: When I see a loose dog, I usually report it to 311 or 911.

Q: When I report a loose dog to 311, I believe that it is quickly and effectively dealt with.

Q: If it were easier to report loose dogs, I would notify the city more often.

Q: If the city responded to my loose dog reports better, I would notify the city more often.

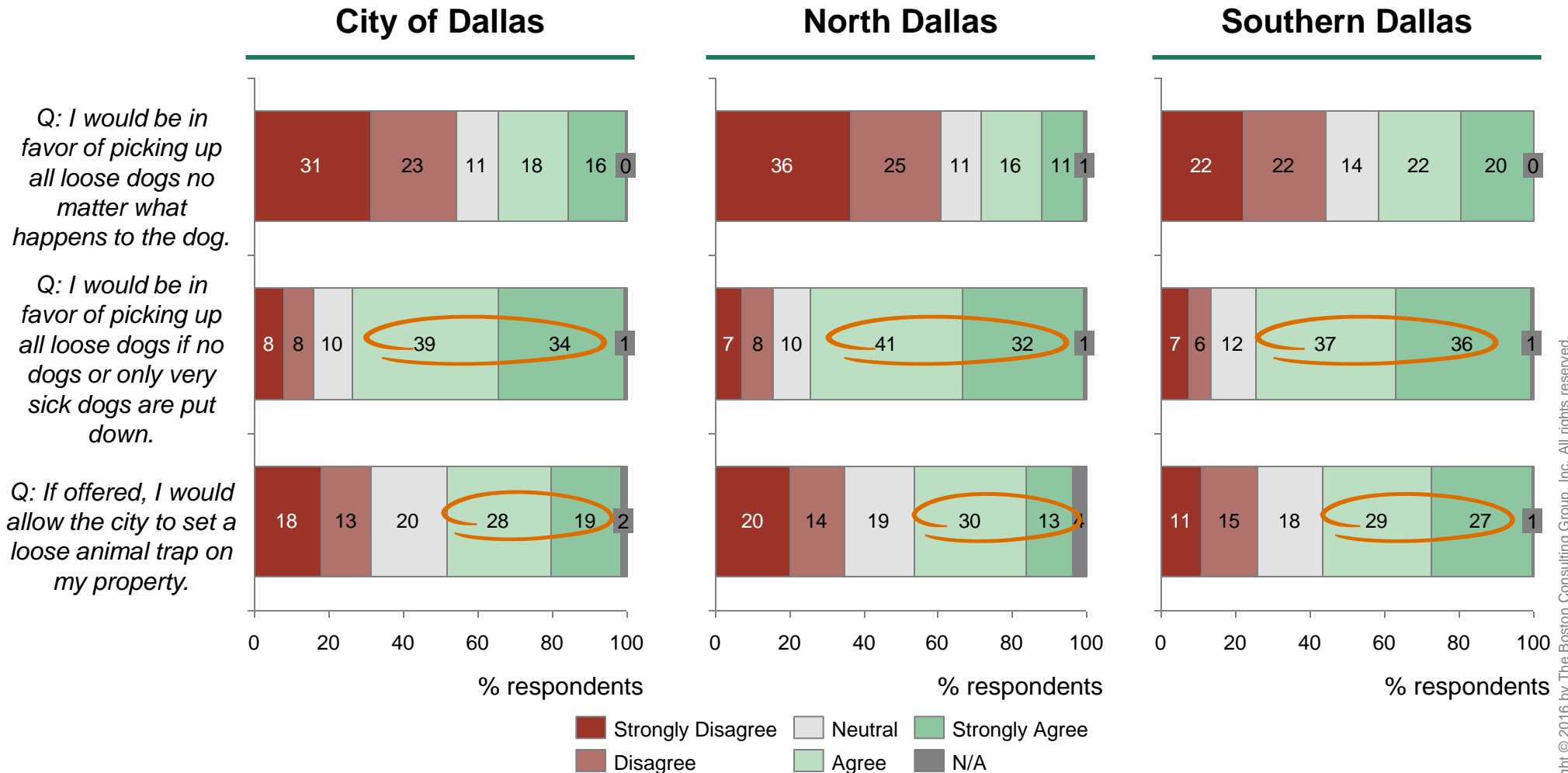


■ Strongly Disagree
 ■ Neutral
 ■ Strongly Agree
■ Disagree
 ■ Agree
 ■ N/A

Note: I-30 used to separate North from southern Dallas. North Dallas includes districts 2,6,9,10,11,12,13,14. Southern Dallas includes districts 1,3,4,5,7,8. Only used residents that provided addresses. All n=2673. North Dallas n=1222. Southern Dallas n=637; Source: Community Survey June 2016, BCG analysis

Beliefs regarding dogs: Public want positive outcomes for dogs and will allow trapping

Results are based on open access survey and subject to participation bias. Duplicate responses removed.



Note: I-30 used to separate North from southern Dallas. North Dallas includes districts 2,6,9,10,11,12,13,14. Southern Dallas includes districts 1,3,4,5,7,8. Only used residents that provided addresses. All n=2673. North Dallas n=1222. Southern Dallas n=637; Source: Community Survey June 2016, BCG analysis



Thank you

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