

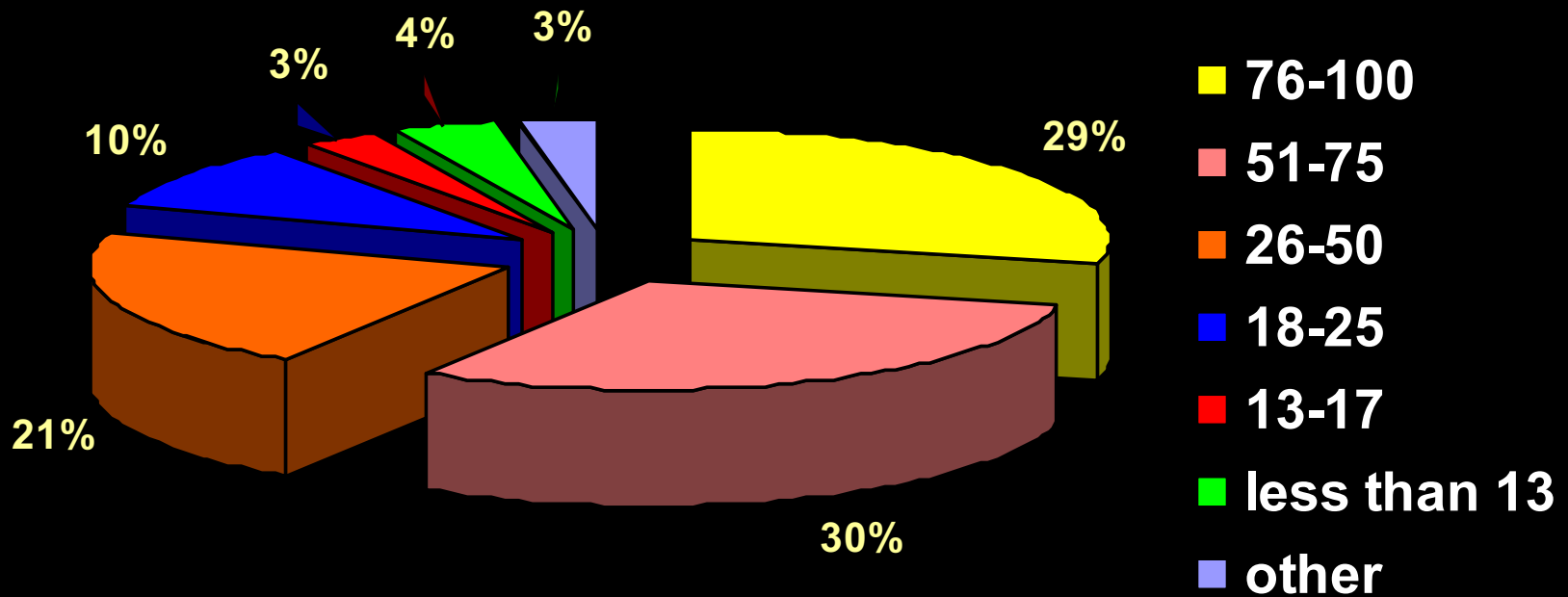
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Washington County EMS

- 3rd Service Govt EMS Provider
- Approximately 700 Square miles of Rural Texas
- Washington County is in fact the 'Birthplace of Texas'
- 90 miles of water frontage between rivers and Lakes
- 35,000 population
- Over 1 million visitors per year
- 7000 Responses / yr
- **1600 RFS** / yr
- 15-20 SOD calls/yr
- Busiest Water Rescue Division in the State over last 3 years.
 - 243 Swift Water Rescues
 - Nearly 2,000 evacuees



Emergencies by Age



OUR EMS Department

- Less than **1%** of the EMS Systems in the Country carry Blood Products
- Awarded as **State of Texas Provider of the Year**
- Less than **2%** of EMS Systems administer field thrombolytics.
- Automated Compression Devices (**LUCAS**)
- **A**dvanced **C**ommunity **P**aramedicine Program
- **U**ltrasound FAST Exams
- Driven by Data / **T**echnology and **B**enchmarks



What is the problem?

Increase in EMS Request for Service

350 million 911 calls 2011

Decrease in CMS / Medicare Funding

Decrease in subsidy / Tax \$\$

National (ACA) Healthcare (Obama Care/Trump Care??)

New Reimbursement Models



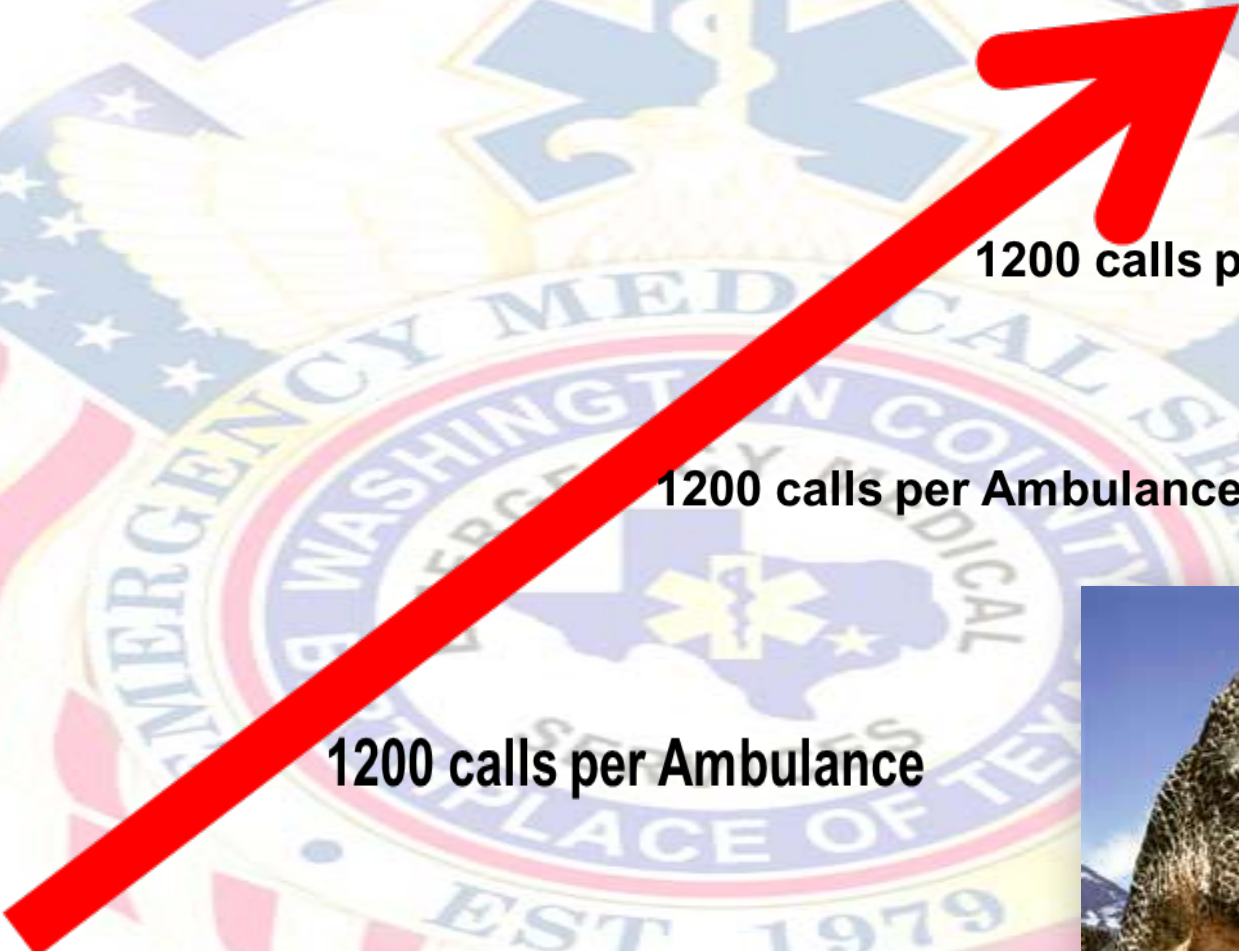
Call Volume

Revenue

Repeat Users 379 patients with 3 or more times / yr
Roughly 25% of our Call Volume!

Solution

Traditional



1200 calls per Ambulance

1200 calls per Ambulance

1200 calls per Ambulance

1200 calls per Ambulance



7304 = 6 units = \$4,342,852

If WE don't then THEY will

“Find another way...”

(do more with what you have)

Efficient: capable of producing desired results without wasting materials, time, or energy

IT'S MORE THAN JUST "PROVIDING
HEALTHCARE" WE MUST BECOME OPERATIONAL
& **FISCALLY SUSTAINABLE** IN PUBLIC SAFETY





What we did...

- We transitioned to **data only as the driving force** of the direction of public safety
- Based off the data we created a program that would **seek out** those that use the system the most **focusing on prevention** and better **serve the most underserved**.
- **WE** made sure the County Govt Officials understood this was a response dynamic change and not a “Program” of the department.



North Central
EMS Institute

College Station
Medical Center

the **MED** ★

ACP Program

180 hr Curriculum

60 hrs didactic

60 hrs simulation

60 hrs internship



TEXAS A&M
HEALTH
SCIENCE
CENTER



BLINN
COLLEGE®



Integrated **C**ommunity **P**aramedic

- Combines our most experienced paramedics (CCP) with community paramedicine.
- Performs **Close Medical Monitoring of frequent users** that have known disease processes with complications
- **Triage's 911 calls** to ensure the system can perform optimally – putting **Paramedics** and EMS Resources **where they need to be.**
- Puts highly skilled / **experienced paramedics** on scene of **acutely ill patients** for better outcomes
- Provides **disease management education** to rural and super rural areas of our community
- Provides education for businesses, schools (safety, CPR, etc..)
- **Decreases Response time** to non typical EMS Communities



REFORMING COST OF SERVICE

San Jose California (Blanket)

M/O/C – 2013 FY

- Engine $5.85 + 6.53 + 15.84 =$
 $\$28.22 / \text{mile}$
- Truck $7.11 + 7.83 + 18.11 =$
 $\$33.00 / \text{mile}$
- SUV $.73 + .93 + 1.76 =$
 $\$3.42 / \text{mile}$
- Washington County EMS
 - Ambulance $\$2.10/\text{mile}$
 - Command $\$.98/\text{mile}$
 - Community Paramedic Response
 $\$.85/\text{mile}$



What our data shows us...

- 4 highly skilled trained (advanced care providers) emergency medicine providers

VS

- 5-6+ trained emergency medicine providers

ROSC Rate Improved by 19%

Results of using **Data** to drive the
direction of public safety.

(REFORM**ed**)

What happens if **we** don't?

Outside Data (TASP)

CMS - ALS1

The first comparison we will look at is the actual cost of providing emergency medicine and transportation to an ALS1 level patient.

This patient by definition **requires a paramedic** to attend and one or more paramedic level procedures was performed.

When comparing all providers the range of cost **was \$637.67-\$2392.68 per patient**. The 3rd Service Public Safety Model certainly appear to be the more efficient model, at least with the sample chosen.

Third Service Models ranged from **\$637-\$741** in actual cost per patient.

While the **Fire based systems** topped out at **\$2392**.

Washington County EMS Community Paramedic Model scored the **highest in efficiency rating** and 48% below the average. **\$637** cost to provide emergency healthcare and transportation.

State of the Program over first 30 months

- ✦ 136 - Total Patients Enrolled
- ✦ 519 - Home Visits
- ✦ **1141 – 911** Responses by ACP's
- ✦ 769 – patient contacts
- ✦ 24 – Business Assessments
- ✦ 198 – Jail Call Medicine Visits
- ✦ 186 – In Home Disease Education
- ✦ **491** - Prevented 911 Transport / ED Admission (**\$1,227,500 Savings over 3years**)



Good Medicine...

- ✦ On pace to save over **2.5 million over 4 years as program grows.**
- ✦ TAMU HSC (independent) Survey revealed a “**True Impact**” to patient outcomes and one of the most impactful programs being evaluated within the Navigator framework
- ✦ Changing patient mind sets. (**EXPECTATIONS**)
- ✦ We received **\$450,000 (FY'14&'15)** Federal Waiver (1115) Program and another **\$300,000 in 2016 (\$750,000)** **since we expanded into rural response areas**
- ✦ **Saved \$1,627,500** from ED Admissions/911 transports
- ✦ **Saved \$450,000 x 3 budget years from EMS Staffing Efficiencies**



At the other site, some patients initially refused services because they thought they were going to be charged for them, but "Once they know that we're not charging 'em, then they're, 'Oh come on back,' of course, anything." The care navigators at this site were characterized as accommodating, courteous, congenial, and professional. They knew the patients on a first name basis and displayed a sincere concern for them as individuals.

At one site, a paramedic noted an increasing emphasis on education over time: "Well, it's evolving into us realizing that it may be more education that we need to take care of. Like diabetics for example. I guess that some of the things that we were assuming when patients get released from physicians or something, that they know more of what they should be doing at home. In reality, unfortunately sometimes it's they're getting released and they, or you don't know to ask the questions, and so we're figuring out that sometime it's just educating."

That paramedic also cited EMT visits as providing patients with accountability for disease self-management that appeared to be helpful: "I would have to say also in addition to that, really close medical monitoring of those patients, because if they know that you're coming to see them, they know somebody's watching them, then your diabetics, for instance, they are very cautious about what they're doing. They know somebody's gonna hold them accountable, so that has also helped as well."

As noted at the beginning of this report section, we were excited that our small sample of DSRIP-funded patient care navigation projects included two based in EMS. We believe that this model has particular applicability to rural areas, where EMTs may have more occasions between emergency calls for non-urgent visits with patients, and where patients also more frequently have difficulty than those in more urban areas getting transportation to preventive care.

... the site are both relatively new, and thus were faced with implementing a DSRIP patient care navigation project that they hadn't developed, although the CEO described the hospital board and staff as very supportive. The other site's EMS director developed the project and the attendant EMT training curriculum; he was also described as "incredible ... an excellent leader..."

One project included all EMTs, and the other included only a few EMTs chosen largely on the basis of strong interpersonal skills. "Paramedics in general are good at building a relationship over 90 seconds and then leaving.... Building a, really a good relationship that someone's gonna trust in and listen and that kinda stuff, it took a little training for us." That training was comprised of a 28-week, 60-hour training course at the local community college and passing a simulation test. However, a participant at that site expressed concern about the high costs of that training: "They pay for the training of the EMSs to go through and also the retention of it, so I think that's—any organization has a vertiginous staff that after you're gone through training—... is will they go to another county? Would they use that resource to go somewhere else?" The lead of the other EMS-related care navigation project expressed difficulty finding training that was relevant and affordable. In both sites, additional staff also support the project, maintaining continuity and providing referrals to additional services needed by patients.

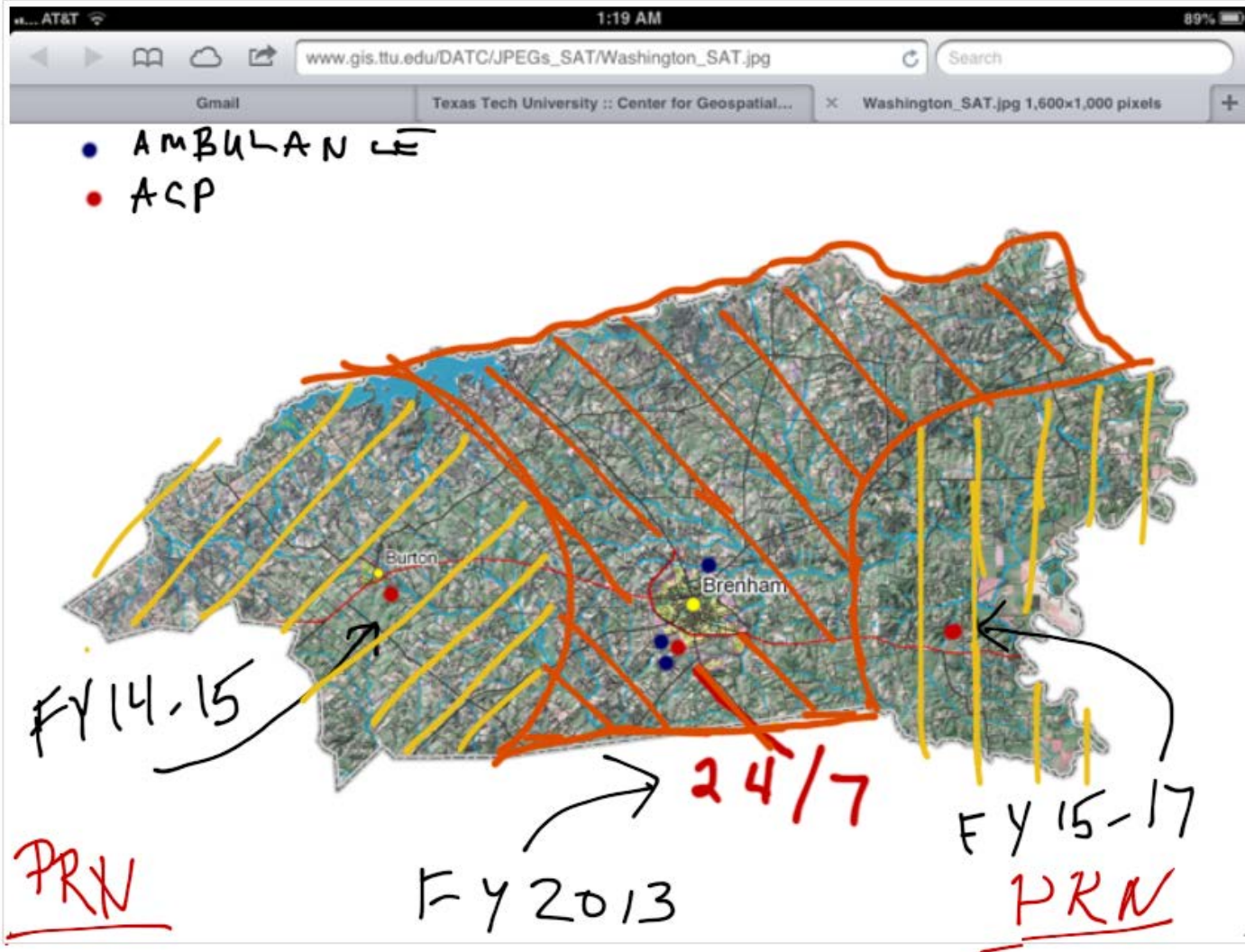
EMTs at one site reported ready access to electronic information about patients as very useful: "I've actually seen what they were called for, what we've done for 'em, why we were there, whether we transported or not, or whether we just got a refusal, and how often that happens. That kind of gives me an idea of what I was going into from the very beginning. We have signed HIPAA forms with them, so we can actually communicate with their physicians. We can ... talk to their physicians on how they're being treated, what are they being treated for." At the time of our site visit, that site was still working on getting more automatic reports from the hospital about when patients enrolled in care navigation had been to the ED, so that they could follow up quickly.

One of the projects was starting with easier patients to serve before considering including MHMR clients, those in harder to reach (more rural) locations, and other potentially more difficult patients.

We used the program to expand **Paramedic Services** and improve the return on investment

- **Decreased** Response times for 911 emergencies
- **Community Paramedic** now in rural response districts that **other wise would go without EMS** services
 - Improves overall health and spends **time preventing hospital admission** instead of paying for the admission
 - **Becomes integrated** part of the department and public safety response.
 - Part of the School Districts
 - Part of Civic groups, senior groups, Churches
- **Improves Response times to those that need it the most** super rural areas

Future Operations

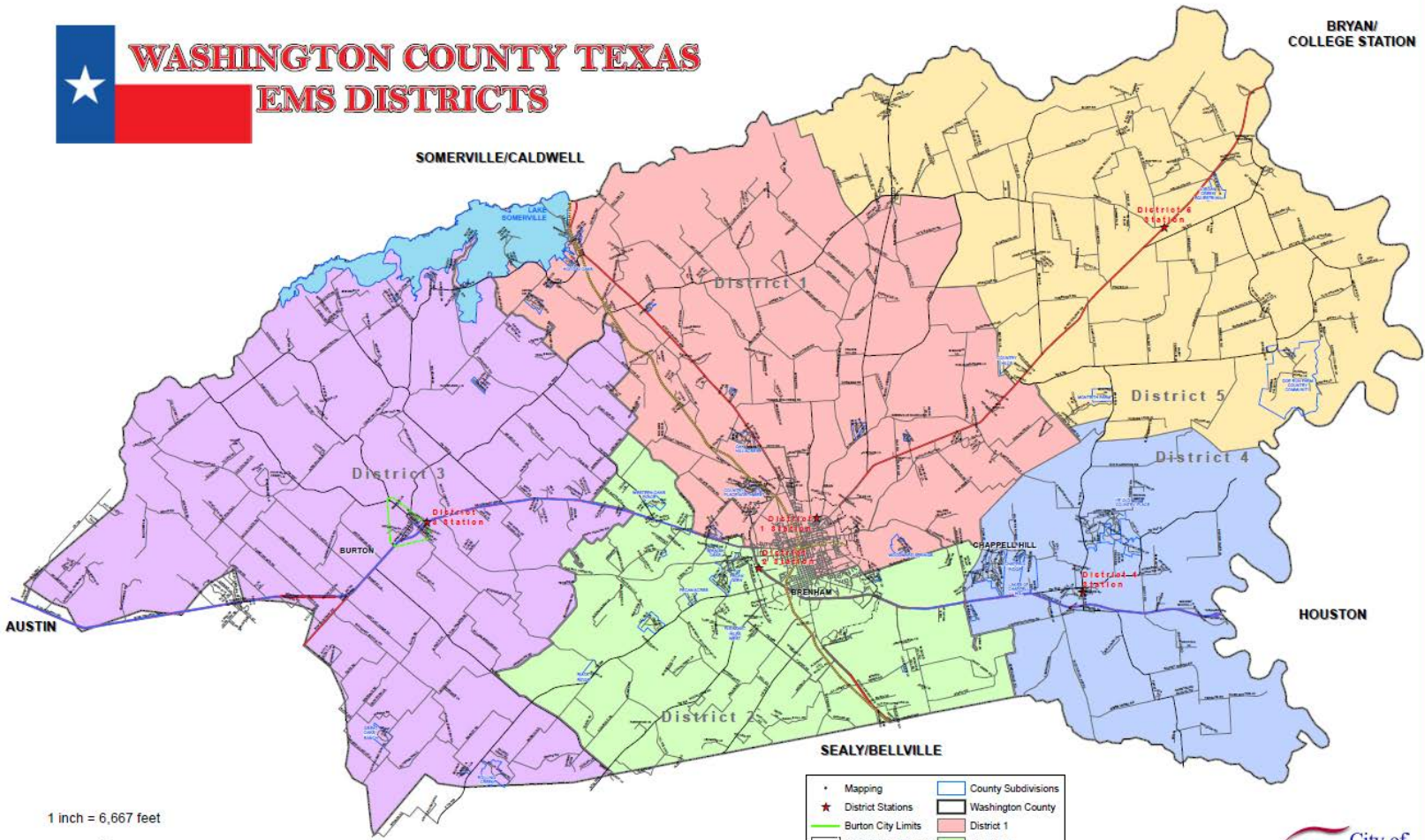




WASHINGTON COUNTY TEXAS EMS DISTRICTS

BRYAN/
COLLEGE STATION

SOMERVILLE/CALDWELL



1 inch = 6,667 feet



• Mapping	County Subdivisions
★ District Stations	Washington County
Green outline Burton City Limits	District 1
Black outline Brenham City Limits	District 2
Blue outline Lake Somerville	District 3
	District 4
	District 5



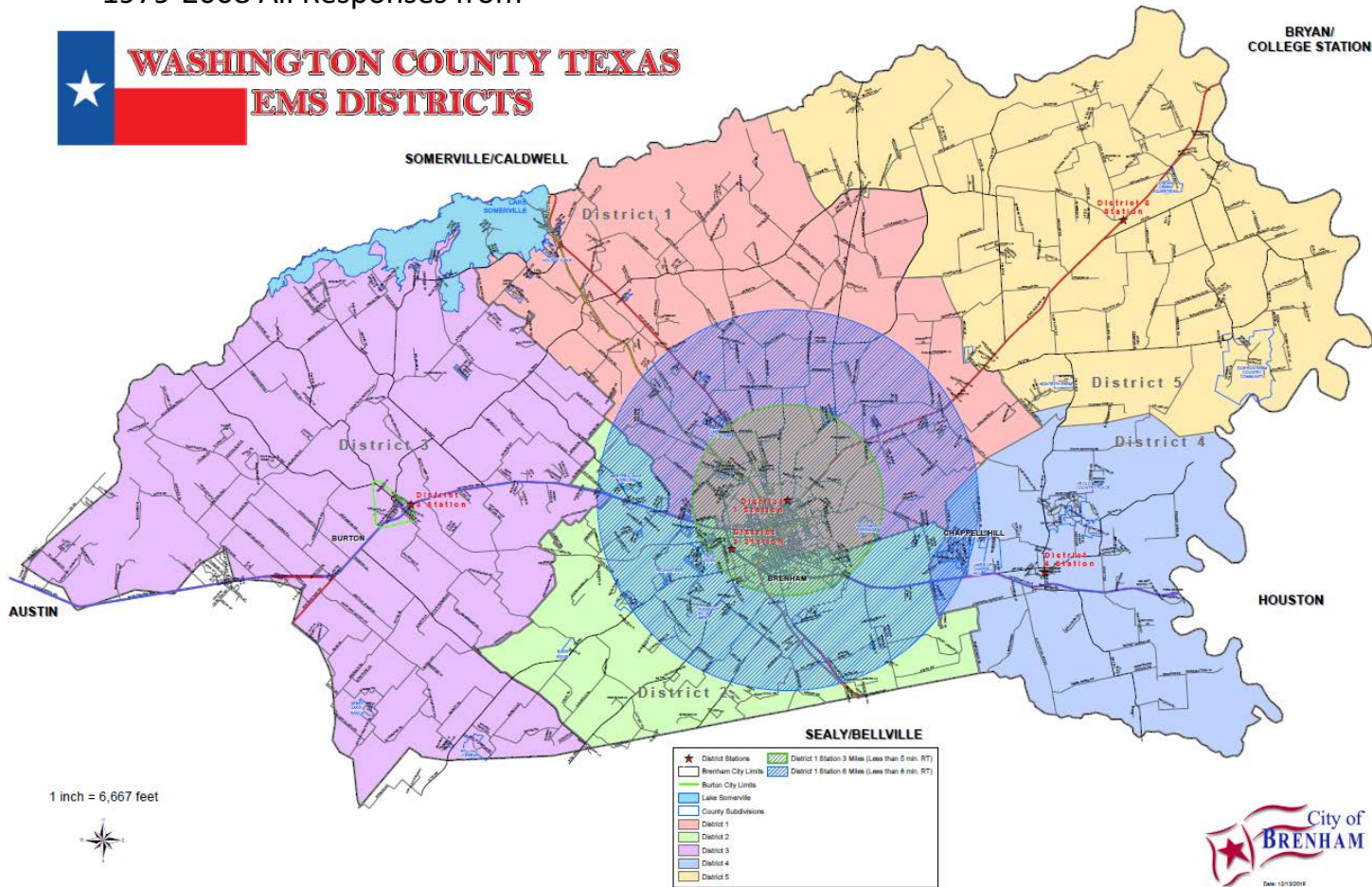
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1979-2008 All Responses from



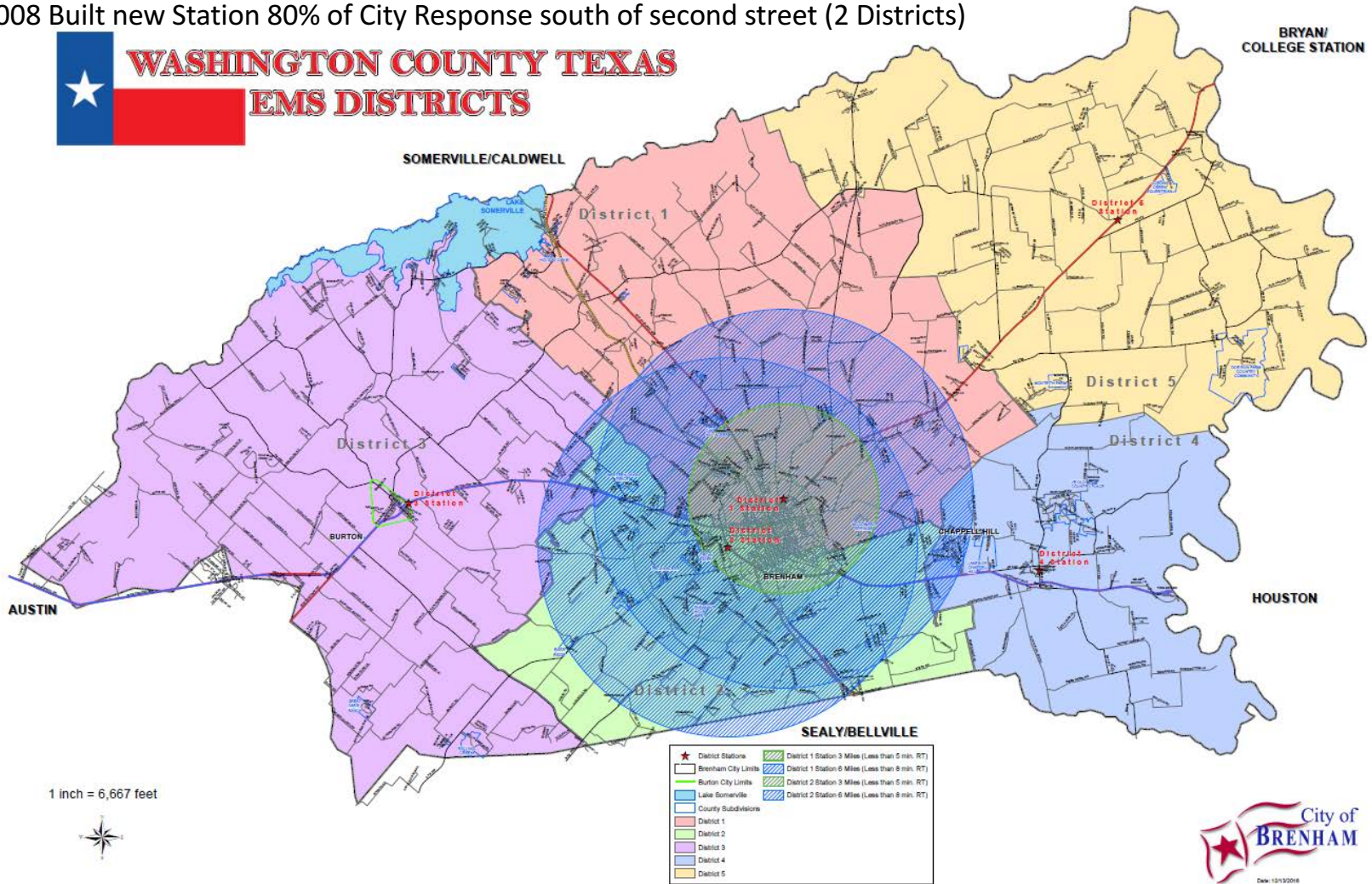
WASHINGTON COUNTY TEXAS EMS DISTRICTS



2008 Built new Station 80% of City Response south of second street (2 Districts)



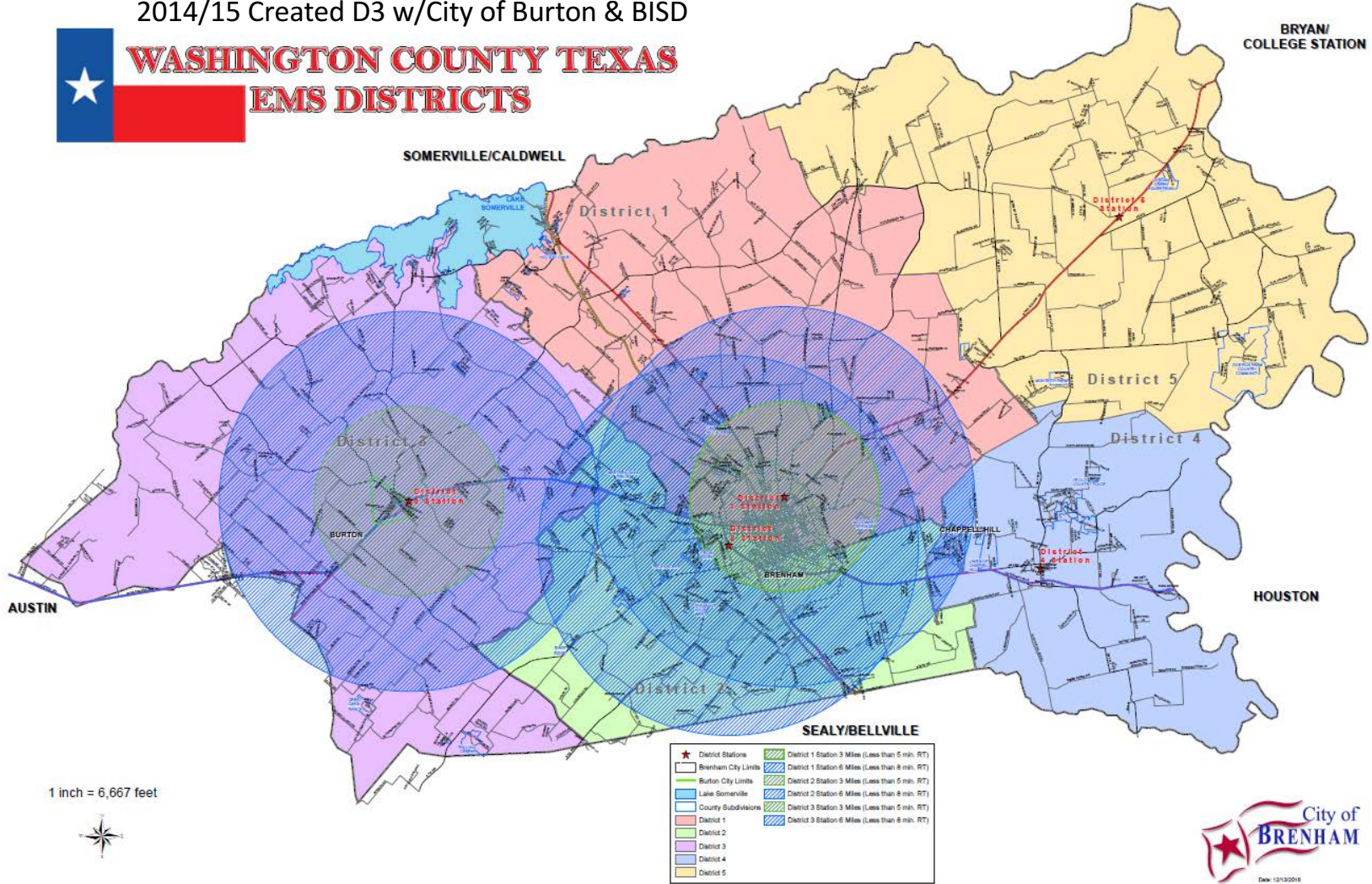
WASHINGTON COUNTY TEXAS EMS DISTRICTS



2014/15 Created D3 w/City of Burton & BISD



WASHINGTON COUNTY TEXAS EMS DISTRICTS



BRYAN/
COLLEGE STATION

SOMERVILLE/CALDWELL

District 1

District 5

District 4

District 6

District 2

SEALY/BELLVILLE

HOUSTON

AUSTIN

BURTON

BRENHAM

CHAPPELHILL

District 3 Station

District 4 Station

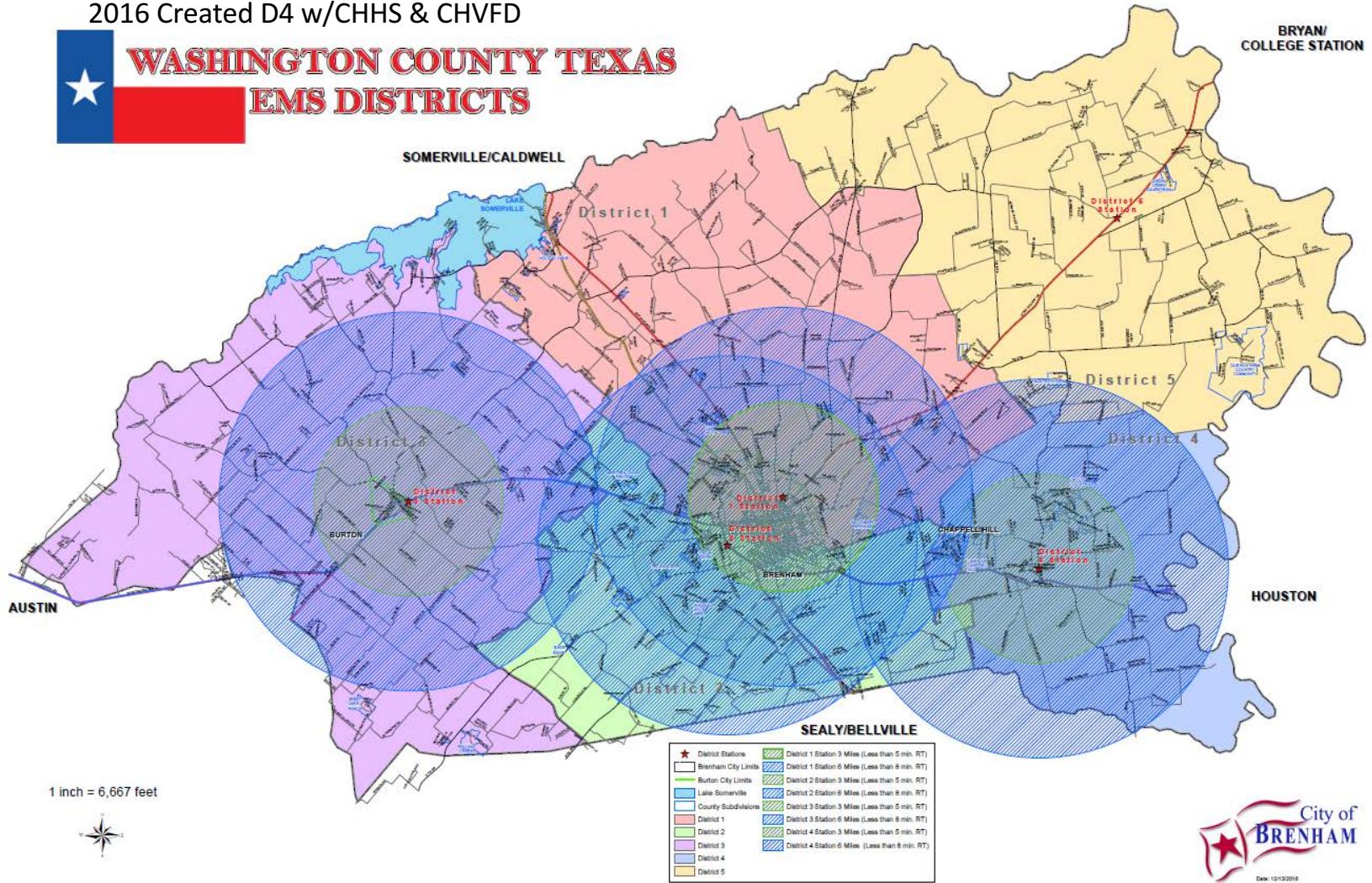
District 5 Station

District 6 Station

2016 Created D4 w/CHHS & CHVD



WASHINGTON COUNTY TEXAS EMS DISTRICTS



1 inch = 6,667 feet

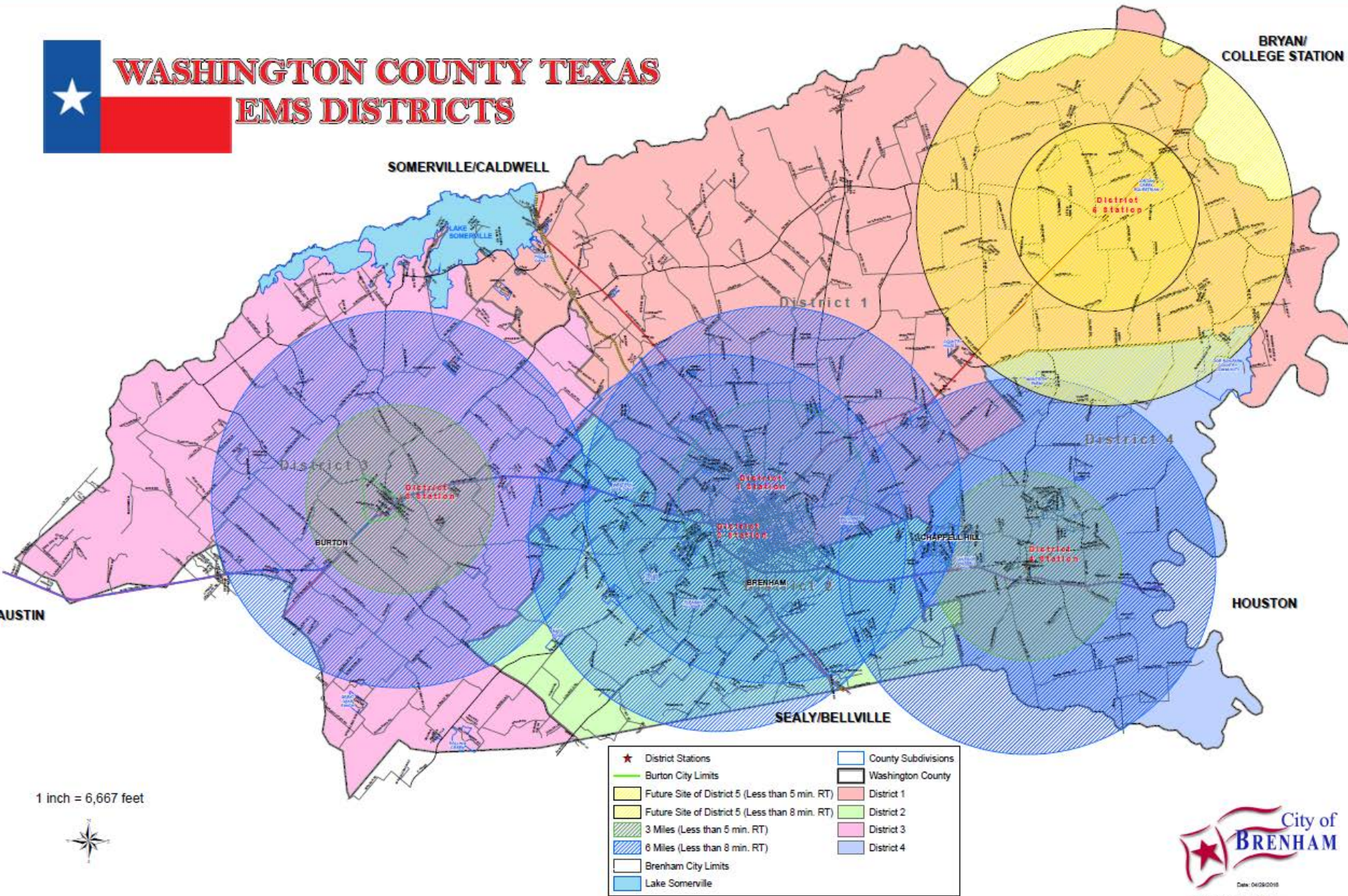


★ District Stations	District 1 Station 3 Miles (Less than 5 min. RT)
□ Brenham City Limits	District 1 Station 6 Miles (Less than 8 min. RT)
□ Burton City Limits	District 2 Station 3 Miles (Less than 5 min. RT)
□ Lake Somerville	District 2 Station 6 Miles (Less than 8 min. RT)
□ County Subdivisions	District 3 Station 3 Miles (Less than 5 min. RT)
□ District 1	District 3 Station 6 Miles (Less than 8 min. RT)
□ District 2	District 4 Station 3 Miles (Less than 5 min. RT)
□ District 3	District 4 Station 6 Miles (Less than 8 min. RT)
□ District 4	
□ District 5	





WASHINGTON COUNTY TEXAS EMS DISTRICTS



1 inch = 6,667 feet



★ District Stations	County Subdivisions
Burton City Limits	Washington County
Future Site of District 5 (Less than 5 min. RT)	District 1
Future Site of District 5 (Less than 8 min. RT)	District 2
3 Miles (Less than 5 min. RT)	District 3
6 Miles (Less than 8 min. RT)	District 4
Brenham City Limits	
Lake Somerville	



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ACP

Solution

Traditional

2,600

2,600

2,600

1200 calls per Ambulance

1200 calls per Ambulance

1200 calls per Ambulance

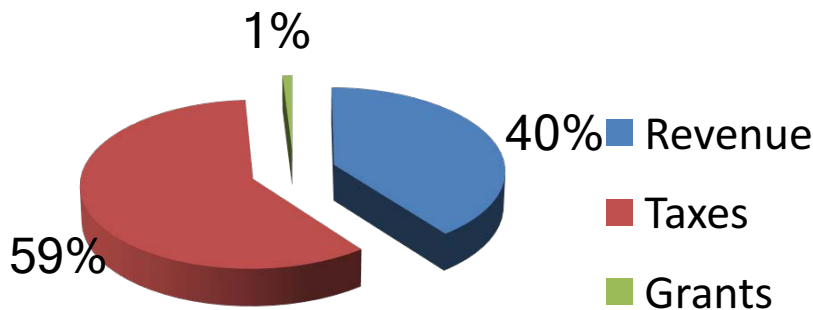
1200 calls per Ambulance



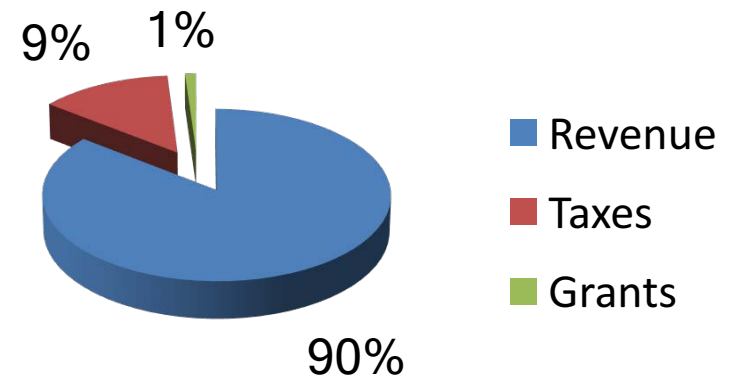
7304 = 3 units + 3 ACP's = \$2,800,000

Integrating Community Paramedic (standards) into EMS Departments improves efficiency and outcomes without inflating healthcare \$\$...

Top 200 JEMS Survey
National Avg



WCEMS



2016 ROSC Rate 52%

Improved by 35% since ACP

Original ROSC rates before prior to 2012 – 17%

Why it all matters





EMS Department Accomplishments

Brazos Valley Regional Hero Award

Outstanding Public Servant Award

EMS Person of the Year of Award

TEXAS EMS Director of the Year

Texas EMS Provider of the Year Award

Brazos Valley Outstanding
Accomplishment Award - 2011

Dept. of Defense Patriotic Employer
Award – 2011

State of Texas Medical Director of the Year

www.washingtoncountyems.net