

Chief Medical Officer Report Tulsa City Council March 2024

**EMS System for Metropolitan
Oklahoma City & Tulsa
Medical Control Board/Office of the Medical Director**

Jeffrey M. Goodloe, MD, NRP, FACEP, FAEMS



Key Clinical Updates

- **Whole Blood Administration**
- **911 BLS (Dual EMT) Ambulance Response**
- **Paramedic Credentialing**
- **Neuroprotective (Head Up) CPR**



Office of the Medical Director

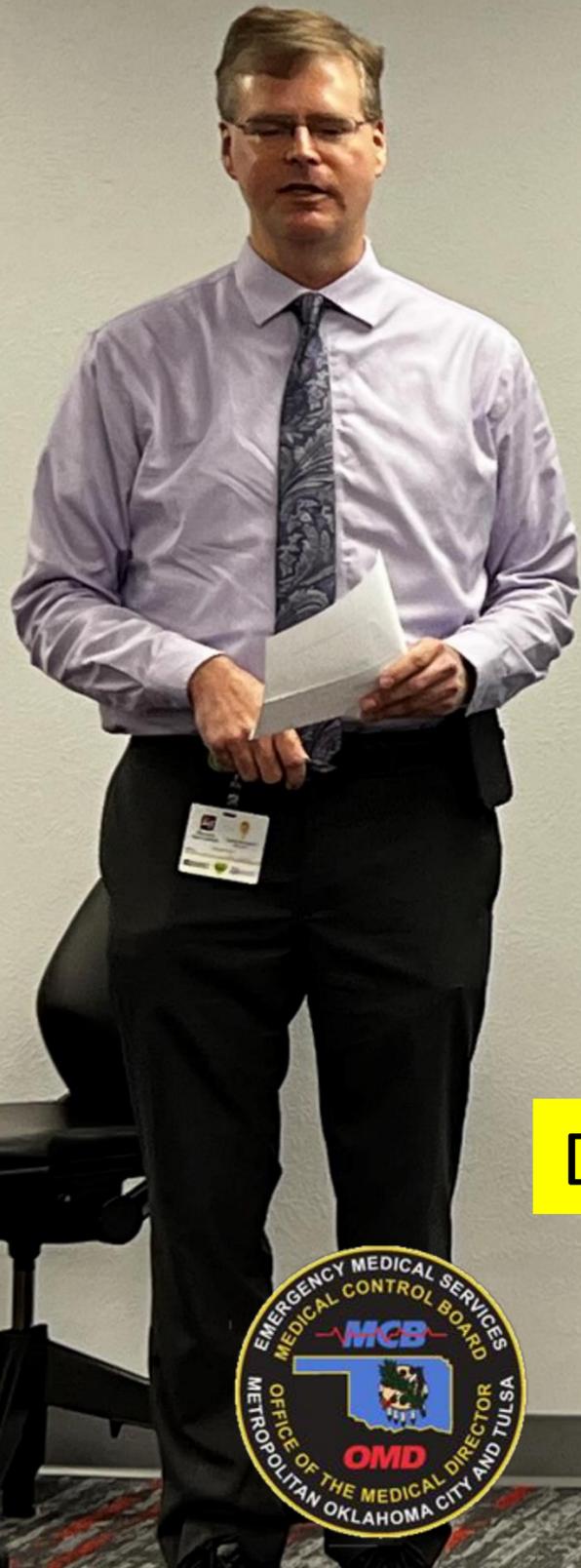
- Jeffrey M. Goodloe, MD, NRP, FACEP, FAEMS
 - Chief Medical Officer
- **Curtis L. Knoles, MD, FAAP**
 - Associate Chief Medical Officer
- **David S. Howerton, BS, NRP**
 - Division Chief, Medical Oversight – West
- **Duffy McAnallen, NRP**
 - Division Chief Medical Oversight – East
- **Matt Cox, NRP**
 - Division Chief, Critical Care Analytics
- **Anna Bailey, MPH**
 - Biostatistician



Whole Blood Administration

- Estimated Start in Metro Tulsa is **July 1**
- Partnership with
 - Our Blood Institute
 - Tulsa Fire Department
 - EMSA
 - Saint Francis Hospital Trauma Services
 - St. John Medical Center Trauma Services
 - Medical Control Board/Office of the Medical Director





Trauma and Whole Blood

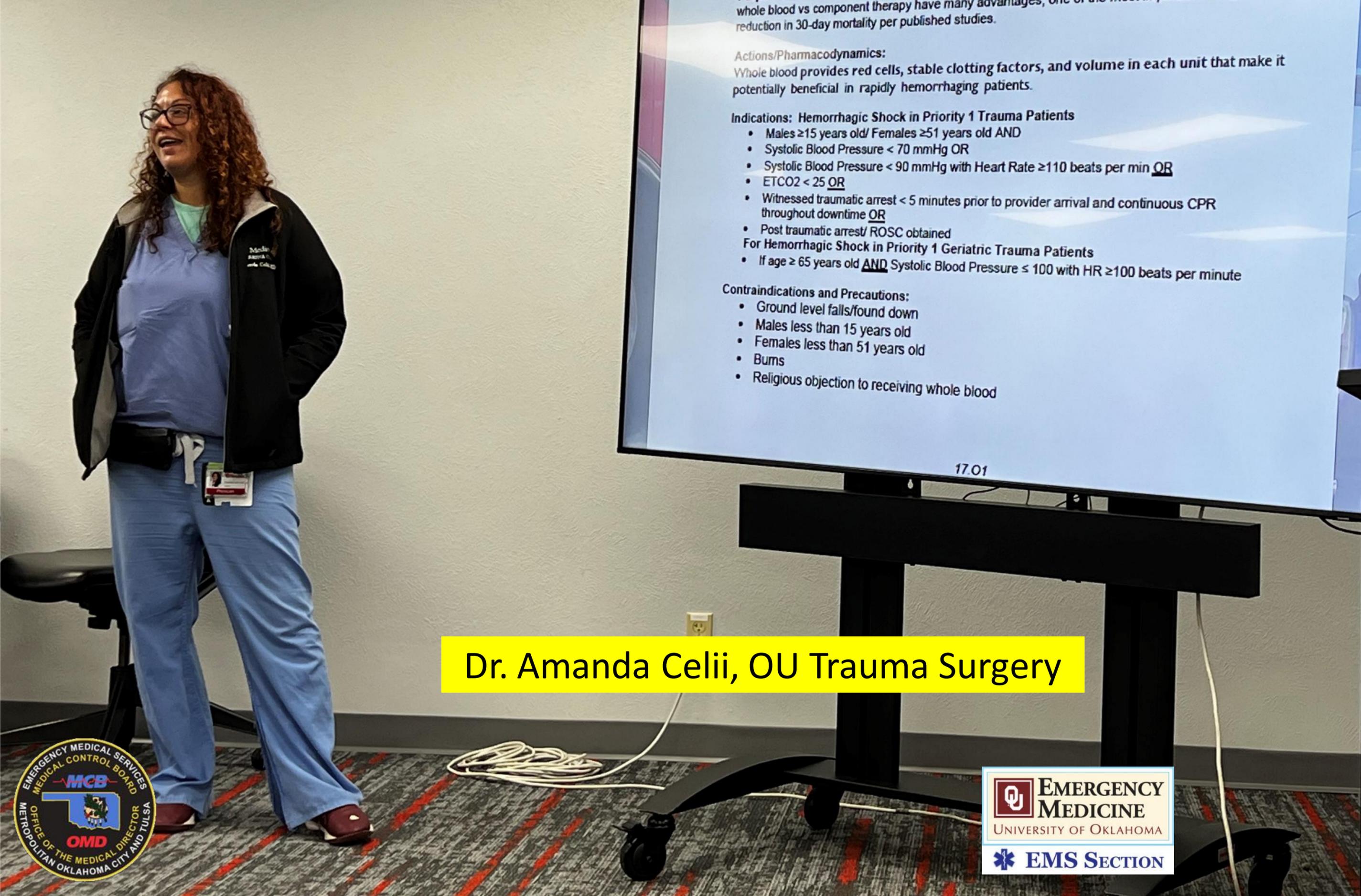
- Hemorrhage the leading cause of preventable death for trauma patients
- Blood products (RBCs, plasma) utilized in the prehospital setting
- Recent resurgence of Whole Blood (WB) use
- Low Titer group O Whole Blood (LTOWB) now more widely available

What role does LTOWB have in prehospital trauma resuscitation?



Dr. Michael Stevenson, Medical Director, Our Blood Institute





whole blood vs component therapy have many advantages, one of the most significant is a reduction in 30-day mortality per published studies.

Actions/Pharmacodynamics:
Whole blood provides red cells, stable clotting factors, and volume in each unit that make it potentially beneficial in rapidly hemorrhaging patients.

- Indications: Hemorrhagic Shock in Priority 1 Trauma Patients**
- Males ≥ 15 years old/ Females ≥ 51 years old AND
 - Systolic Blood Pressure < 70 mmHg OR
 - Systolic Blood Pressure < 90 mmHg with Heart Rate ≥ 110 beats per min OR
 - ETCO₂ < 25 OR
 - Witnessed traumatic arrest < 5 minutes prior to provider arrival and continuous CPR throughout downtime OR
 - Post traumatic arrest/ ROSC obtained
- For Hemorrhagic Shock in Priority 1 Geriatric Trauma Patients**
- If age ≥ 65 years old AND Systolic Blood Pressure ≤ 100 with HR ≥ 100 beats per minute

- Contraindications and Precautions:**
- Ground level falls/found down
 - Males less than 15 years old
 - Females less than 51 years old
 - Burns
 - Religious objection to receiving whole blood

17.01

Dr. Amanda Celii, OU Trauma Surgery





Whole Blood by EMS in OKC

- November 30, 2022 to present (52 patients)
- Serious Trauma w/High Risk of Bleeding
- Blood Pressure & Shock Index
- Shock Index = Heart Rate/Blood Pressure
- If LOW BP and HIGH (>1) SI = Blood



Impact of Whole Blood by EMS in OKC

- Shock Index
 - Average 1.25 → 0.81
- Systolic Blood Pressure
 - Average increases by 44 mmHg
- Avoidable fatalities can be avoided with early blood administration

n = 52 patients



911 BLS Program

Dec 2023 - Jan 2024

- Eastern Division/Metro Tulsa
- Eligible Calls (MCB MPDS Codes) = 2327
 - BLS Ambulance Responses = 1752 (75.3%)
- Overall Transports = 1736
 - Cancel/Refusal of Service 25.4%
- RLS Transports = 19 (**0.8%**)
- ALS Assists = 51 (**2.2%**)
- Unstable VS = 88 (**3.8%**)



911 BLS Program

Dec 2023 - Jan 2024

- Western Division/Metro OKC
- Eligible Calls (MCB MPDS Codes) = 1955
 - BLS Ambulance Responses = 952 (48.7%)
- Overall Transports = 1449
 - Cancel/Refusal of Service 25.9%
- RLS Transports = 12 (**0.6%**)
- ALS Assists = 18 (**0.9%**)
- Unstable VS = 60 (**3.1%**)



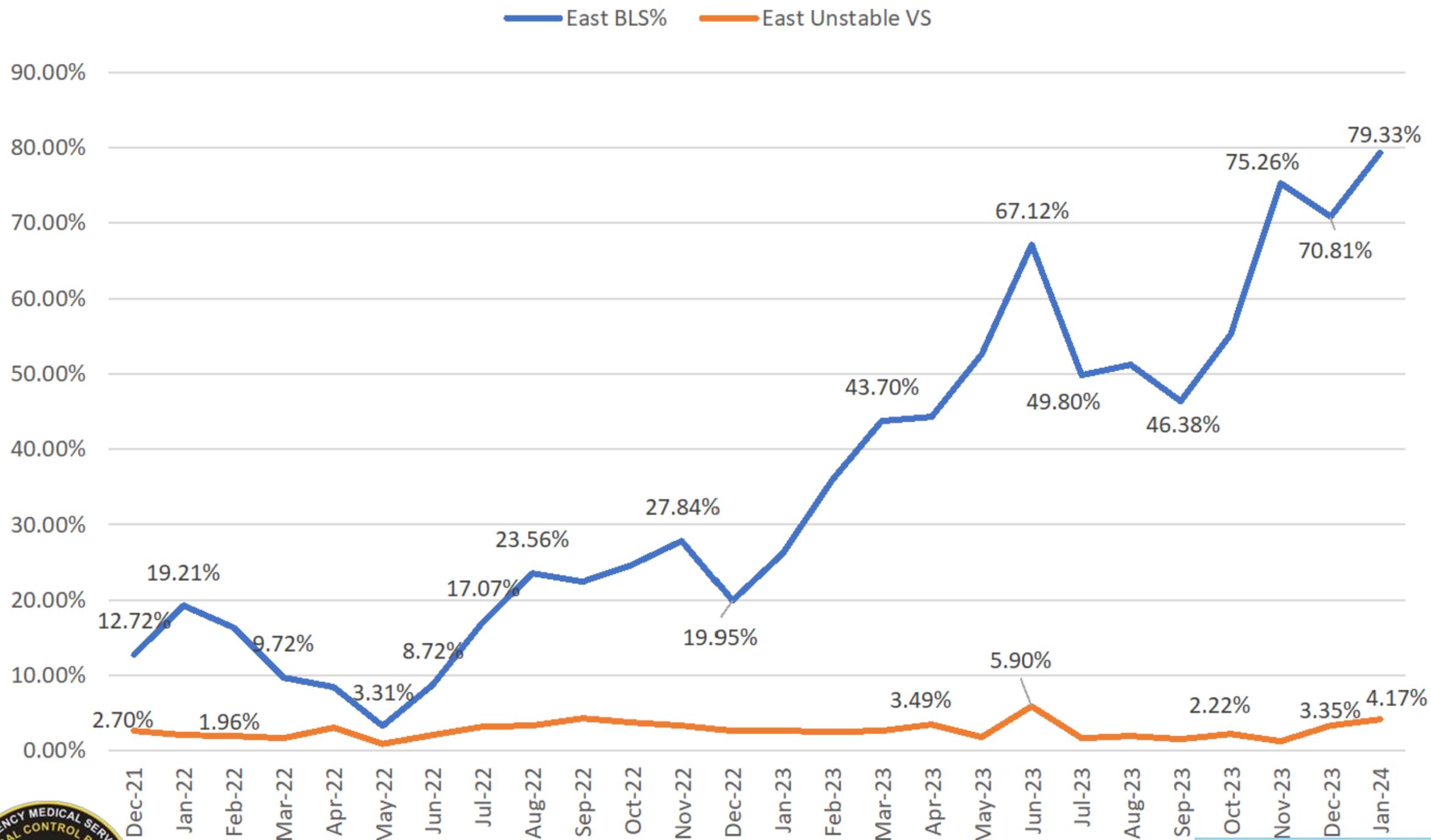
911 BLS Program

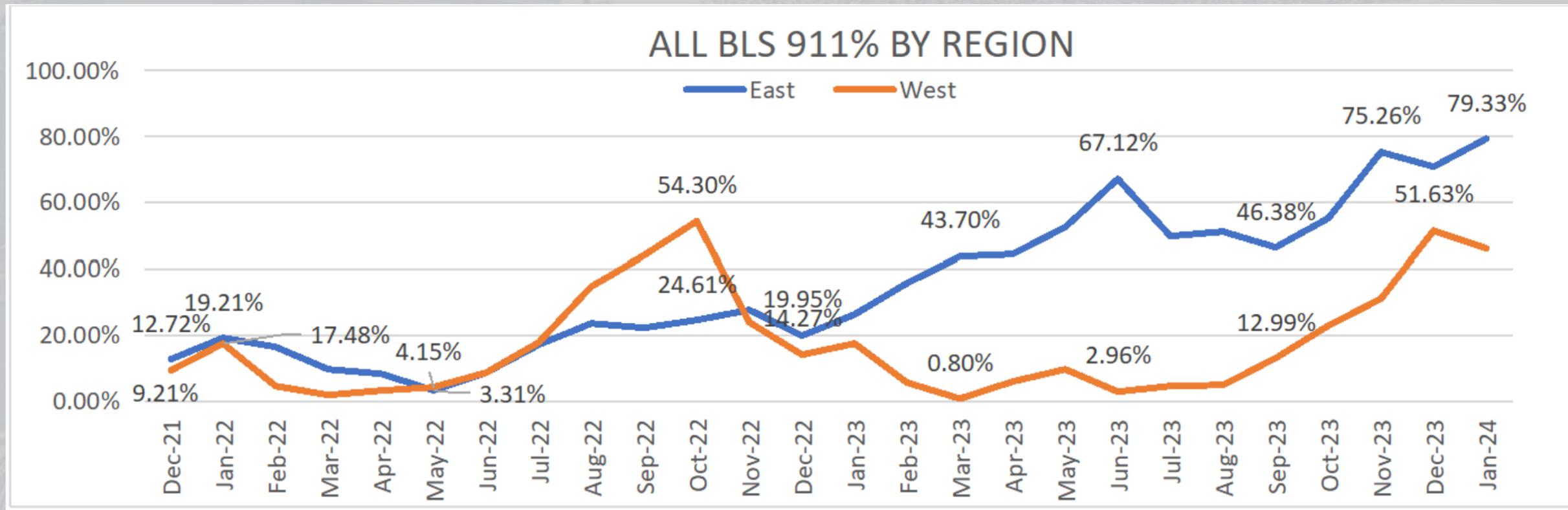
Dec 2021 - Jan 2024

- Metro Oklahoma City & Tulsa Combined
- Eligible Calls (MCB MPDS Codes) = 54878
 - BLS Ambulance Responses = 15000 (27.3%)
- Overall Transports = 38974
 - Cancel/Refusal of Service 29.0%
- RLS Transports = 463 (**0.84%**)
- ALS Assists = 481 (**3.21%**)
- Unstable VS = 1523 (**2.78%**)



TULSA BLS 911%

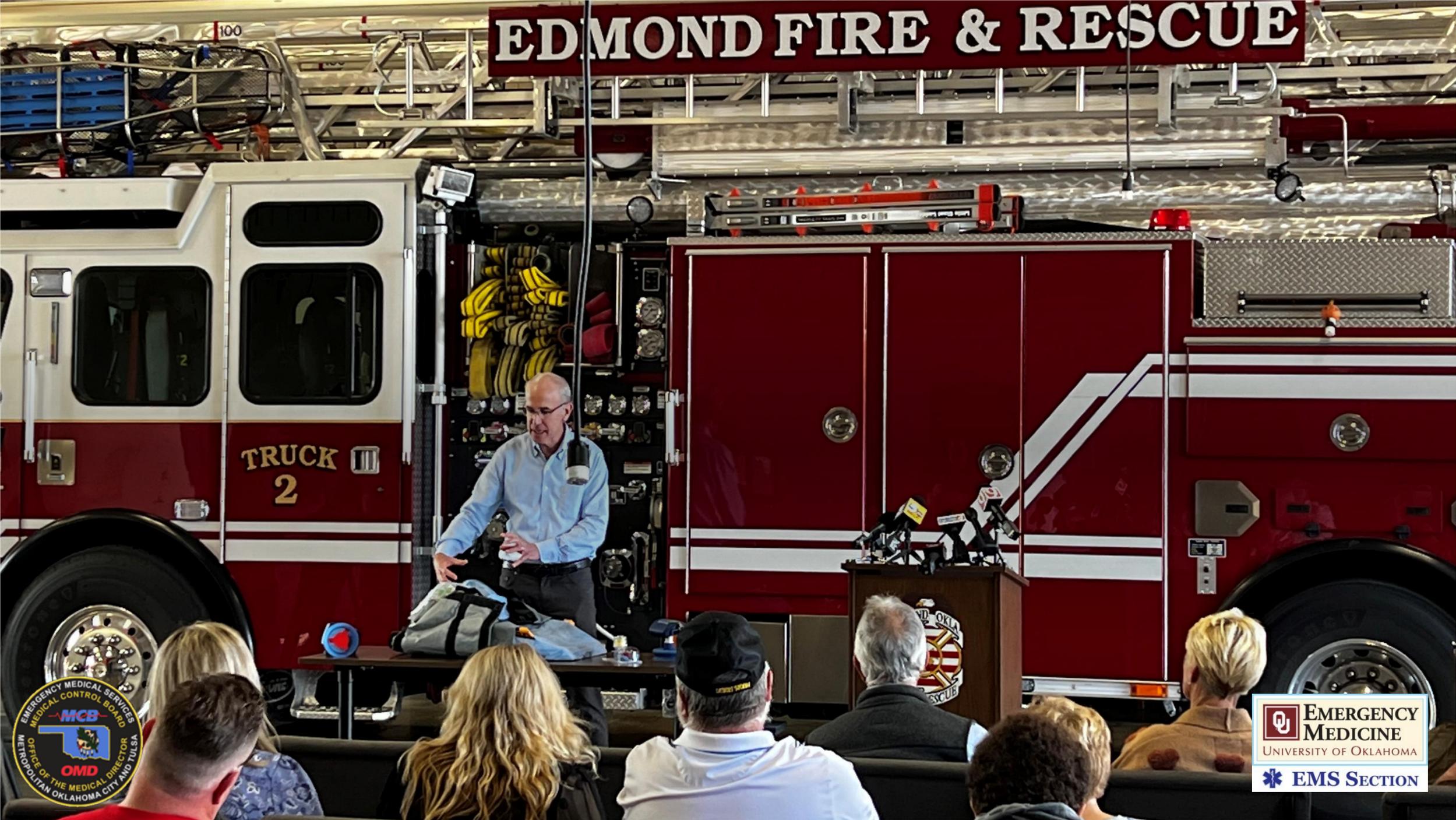




Paramedic Credentialing by MCB/OMD

- FY/OY 23-24 (July 1) to date
- Tulsa
 - TFD 9
 - EMSA 34
- OKC
 - OKCFD 4
 - EMSA 29

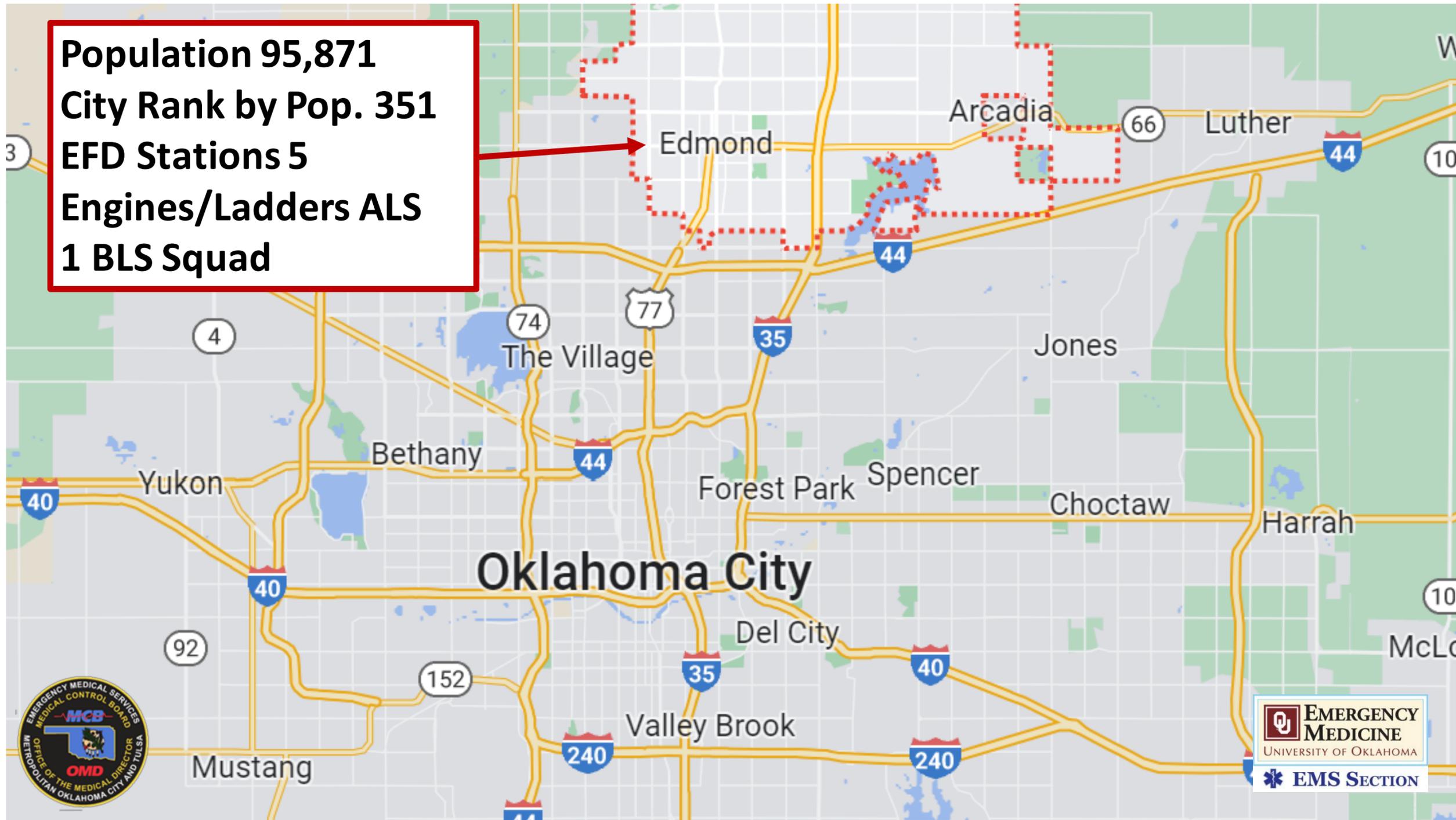




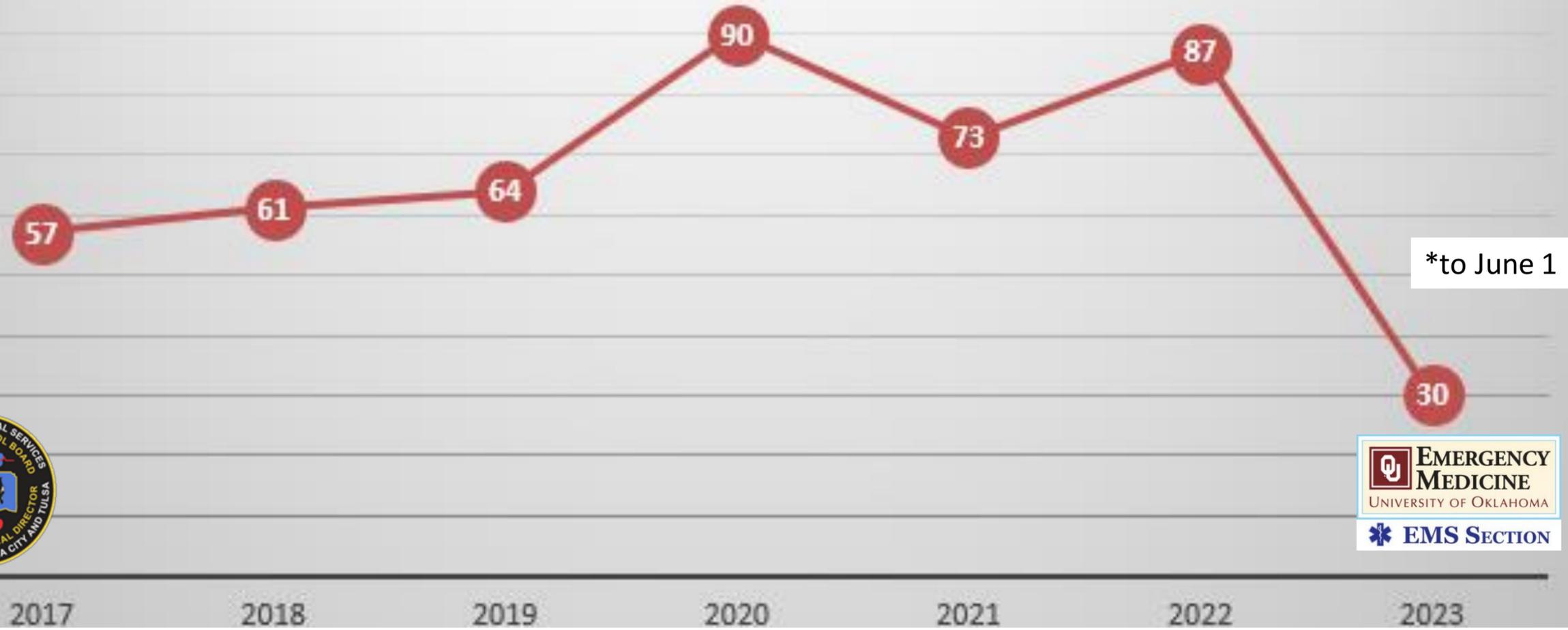
EleGARD CPR Device



Population 95,871
City Rank by Pop. 351
EFD Stations 5
Engines/Ladders ALS
1 BLS Squad



Edmond Fire Department Total Resuscitations 2017-2023



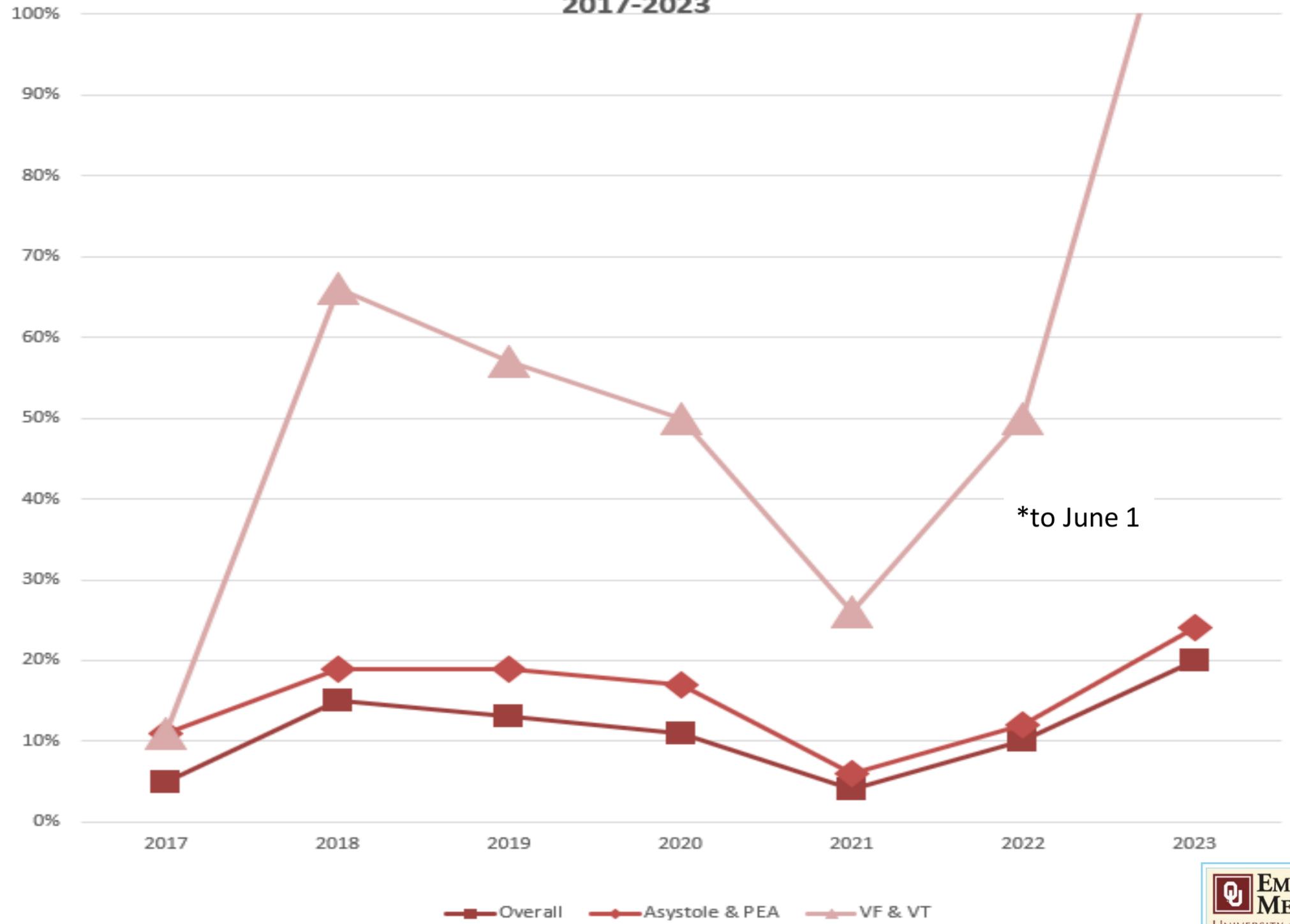
Edmond Fire Department Sustained ROSC (%) 2017-2023



*to June 1



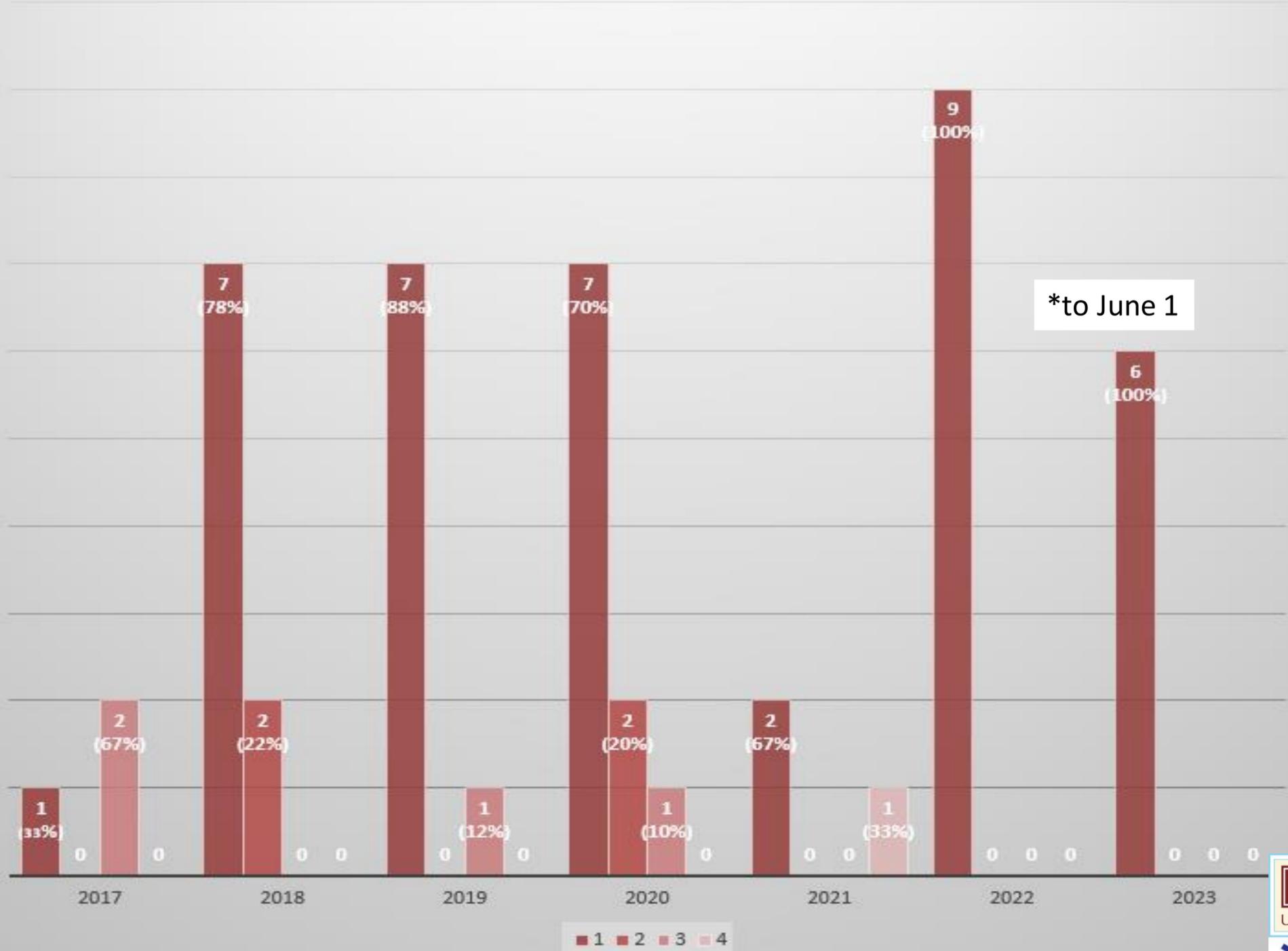
Edmond Fire Department Annual Survival to Discharge (%) 2017-2023



*to June 1



Edmond Fire Department Annual CPC Breakdown, All Survivors 2017-2023





TULSA



OKLAHOMA CITY

 **EMERGENCY MEDICINE**
UNIVERSITY OF OKLAHOMA

 **EMS SECTION**

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