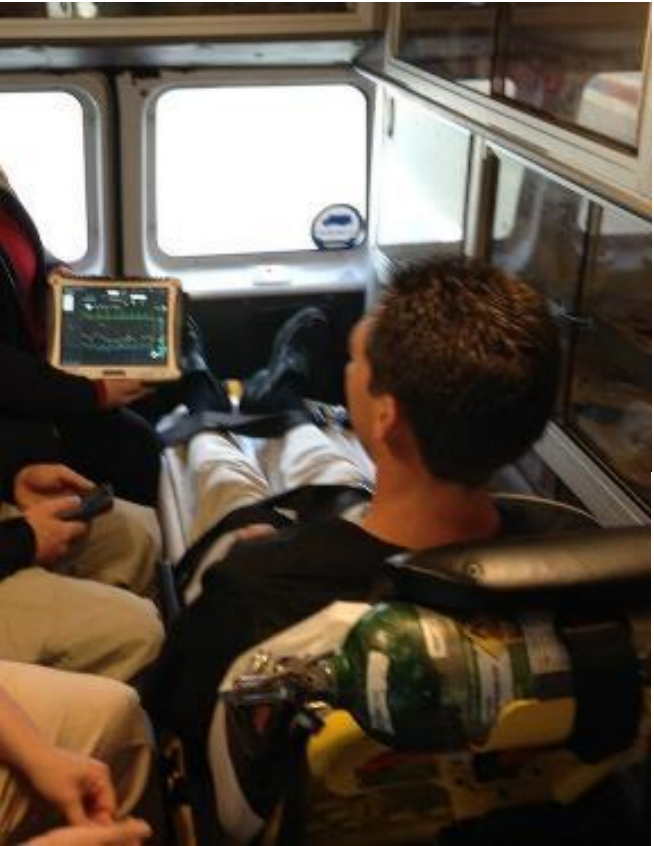




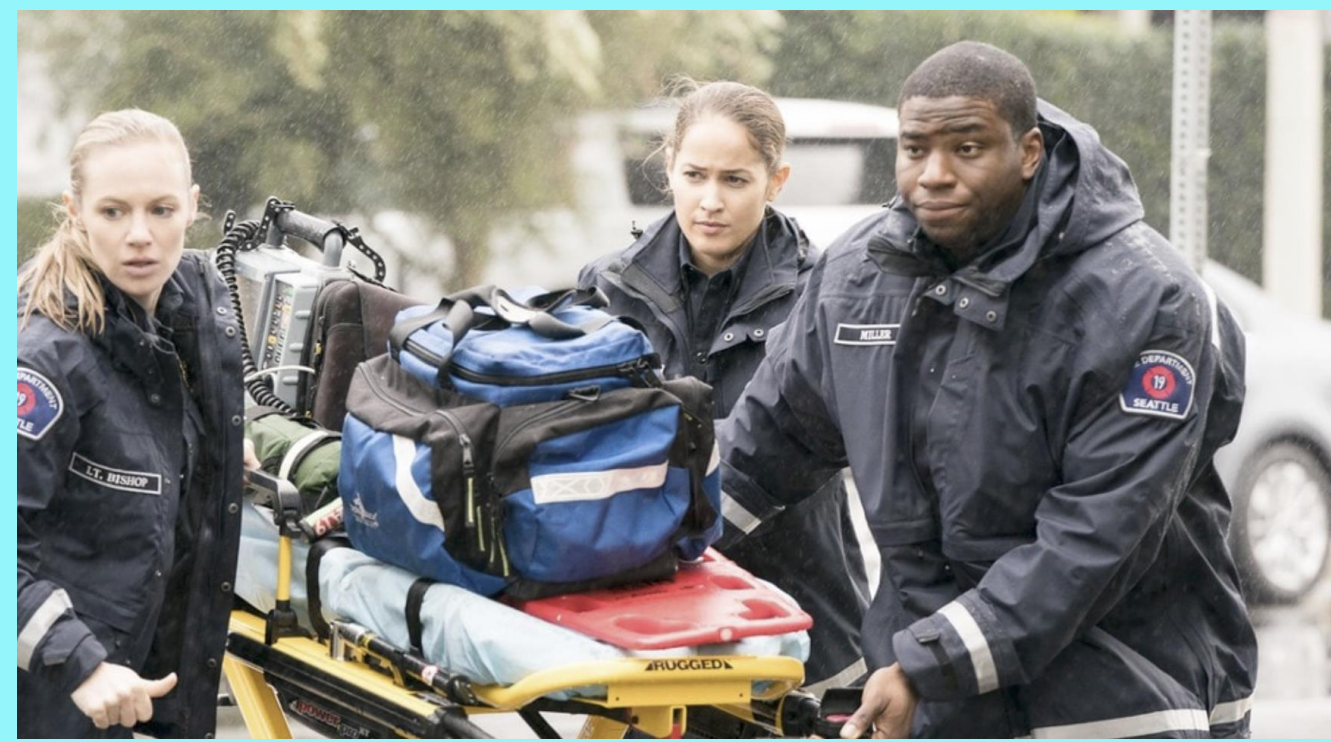
*A Little Bit About  
Emergency Medical Services (EMS)*

Kevin McGinnis, MPS, Paramedic Chief (Ret.)  
President, *Friends of EMS for Maine*

# EMS Pre-1970 to Present







**87 %  
Expect  
This  
When  
911  
Called**





# LEVEL OF CARE: WHAT CAN AN AMBULANCE CREW BRING TO YOUR MEDICAL EMERGENCY?

<b>EMT</b>	<b>Advanced EMT</b>	<b>Paramedic</b>	
Avg. 150 Hours (100-200)/\$1,500	Avg. EMT + 400 Hours (300-500)/\$3,500	Avg. EMT + 1,800 Hours (800-1,800)/EMT + \$11,000; AEMT + \$3,500	
	<b>ALL EMT SKILLS PLUS:</b>	<b>ALL AEMT SKILLS PLUS ADVANCED ASSESSMENT AND TREATMENT METHODS PLUS:</b>	
Assists with Pt's Own Meds (OLMC*) CPAP (Request ALS)	Assists with Pt's Own Meds	4 Lead Heart Monitor	Ipratropium Bromide (Breathing)
CPR	Heart Defibrillation (AED/manual)	12 Lead Heart Monitor	Levophed (Heart/BP)
Oxygen	4 Lead Heart Monitor (limited)	Secure Airway (Intubation)	Lidocaine (Pain)
Heart Defibrillation (AED)	Vascular Access (IV/IO)	Pacing (Cardiac)	Ketamine (Pain) (Behavioral OLMC*)
Glucometer (Glucose Testing)	Laryngeal Mask Airway	Cardioversion (Cardiac)	Magnesium (Heart, Breathing)
12 Lead Acquisition (Not Reading)	Blind Insertion Airway Device	Surgical Procedures (Breathing)	Metoprolol/Lopressor (Heart)
Splinting	Capnography	Oral Gastric Tube	Midazolam/Versed (Seizures)
Spinal Motion Restriction	CPAP	Chest decompression	Nitrous Oxide (Pain)
Bleeding control (Including Tourniquet and Hemostatic Agent)	DuoNeb (Breathing)	Activated Charcoal (Poison) OLMC	Ondansetron/Zofran (Nausea)
Airway Management (BVM,OPA/NPA)	Acetaminophin PO/IV (Pain)	Adenosine (Heart)	Racemic Epinephrine (Airway)
DuoNeb (Breathing/Must Call ALS)	Nitroglycerin SL (OLMC*)	Albuterol (Breathing)	Sodium Bicarbonate (Heart)
Aspirin Pill (PO/Heart)	Epinephrine (auto injector or IM only)	Amiodarone (Heart)	Tetracaine (Eye Pain)
Oral Glucose (Paste/Heart)	Glucagon (Diabetes)	Atropine (Heart)	Tranexemic Acid (Bleeding)
Epinephrine (auto injector only)	Dextrose D10/D50 (Diabetes)	Calcium Gluconate (Heart)	
Naloxone (atomized)(Overdose)		Ceftriaxone (infection)	
Nitroglycerin (Pt's own) (OLMC*)		Dexamethasone (Breathing)	
Acetaminophin PO (Pain)		Diphenhydramine/Benadryl (Allergy)	
		Epinephrine (Heart/Allergy/Breathing)	
		Fentanyl (Pain)	

\*Only After consultation with On Line Medical Control

Courtesy of NorthStar EMS ~ [www.fchn.org/NorthStar](http://www.fchn.org/NorthStar)

# Increasing Ambulance Service Maturity of Capability

- **Staffing:** All Volunteer → Call Pay/On-Call Pay/Token Incentives → Vol. + Per Diem → Per Diem → Some FT + Per Diem → Primarily FT + Per Diem for Fill-In
  - 1 FTE = 2,080 Hours. **8.4 FTEs** are required to staff an ambulance 24/7.
- **Response Type/Time:** Respond to Base Then Scene → Respond from Base → Respond from Base (With Local Response by 1<sup>st</sup> Responders for Distant Calls)
- **Level of Care:** EMT + Driver → 2 EMTs → EMT+AEMT → EMT/AEMT+Paramedic → EMT/AEMT+Community Paramedic → Tiered Response

# Increasing Ambulance Service Maturity of Capability

- **Equipment:**

- 1 Ambulance + Min. Required EMT Equipment →
- 2 Ambulances + Min. Required EMT Equipment →
- 1-2 Ambulances + Min. Required AEMT Equipment →
- 1-2 Ambulances + Min. Required Paramedic Equipment

- **Funding:**

- Volunteer Subsidy/Donations/Fund-Raising Events →
- Previous + Some Billing →
- Previous + Robust Insurance Billing →
- Previous + Municipal Subsidy →
- Previous + Hospital/Other Billing for Services →
- Billing for CP and Other Services

# “Maineville Fire Rescue” Highest Licensed Crew by Year

	2019	%	2020	%	2021	%	2022	%
EMT	127	40.7%	83	31.7%	68	22.1%	32	7.9%
Advanced EMT	10	3.2%	69	26.3%	115	37.3%	174	43.1%
Paramedic	175	56.1%	110	42.0%	125	40.6%	198	49.0%

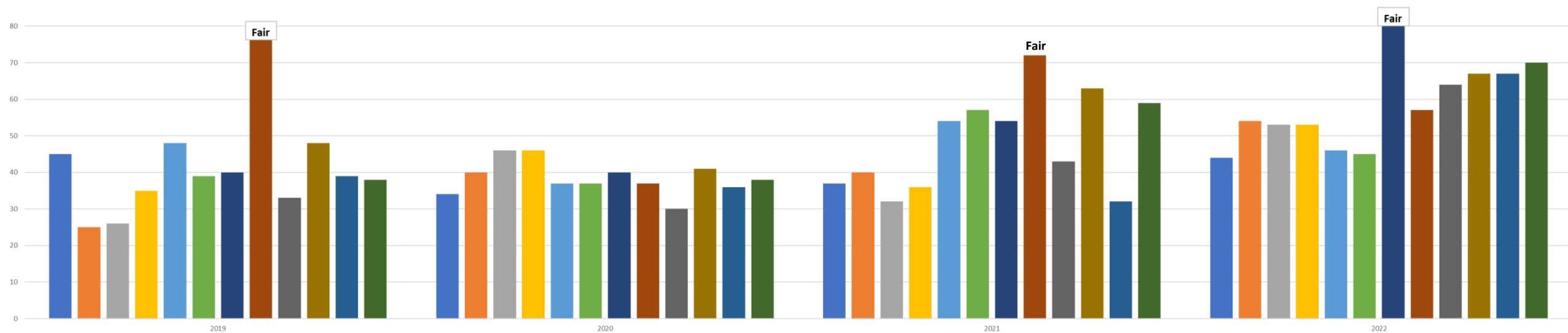
- 15-20% of emergency calls may require (another 20% benefit) from paramedic-level intervention.
- Urban area: tiered response can adjust appropriate response.
- Rural area: 100% paramedic presence on response crew is main means to assure coverage on the 15 – 20%.

# Response Times by Town for “Maineville” Fire Rescue

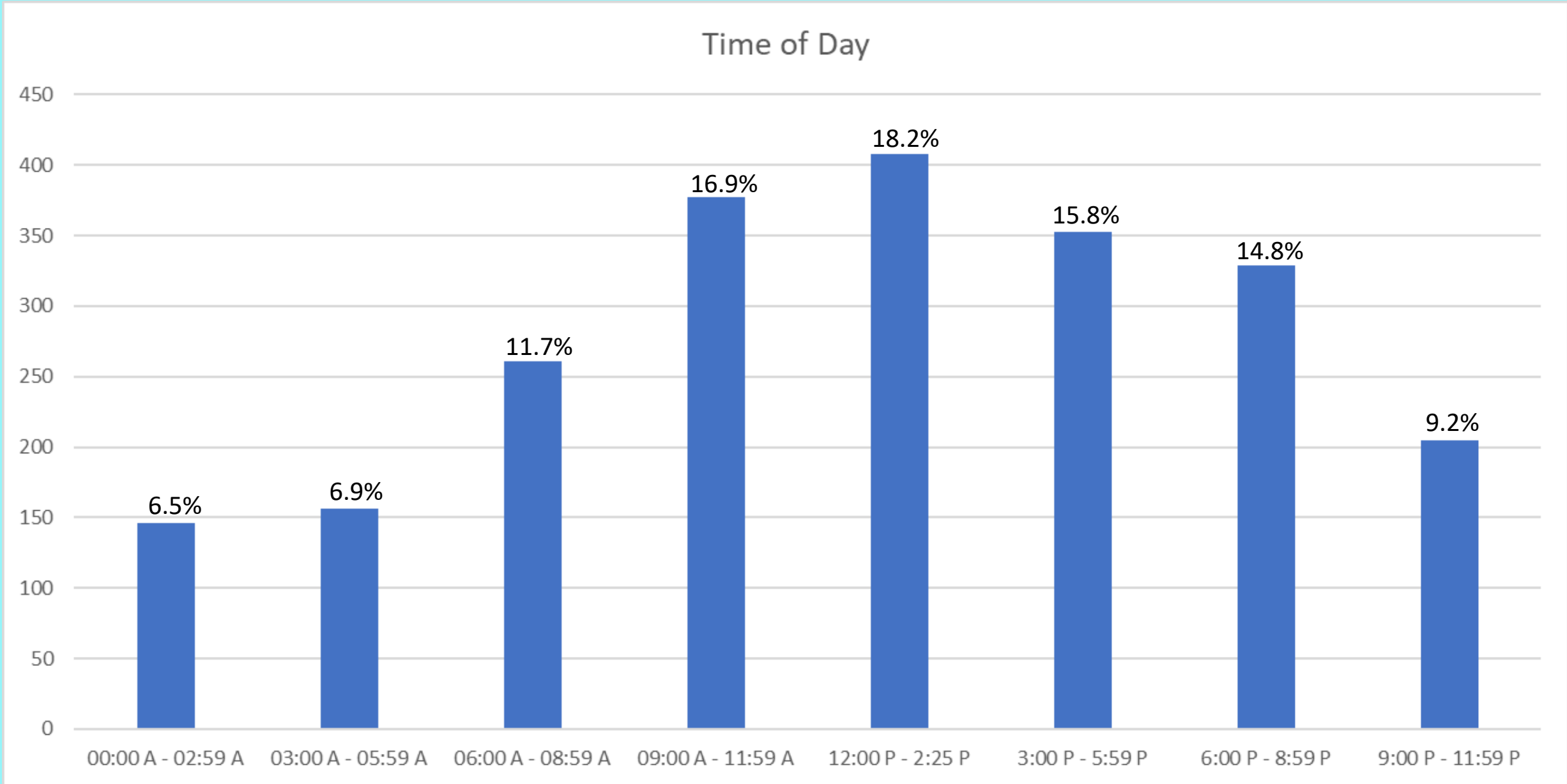
	# Calls	Avg Resp Time
2019	312	0:12:49
Anytown	45	0:16:42
Maineville	151	0:08:15
Other	114	0:17:21
Junction		
2022	404	0:10:39
Anytown	55	0:12:56
Maineville	198	0:06:37
Other	148	0:15:12
Junction		



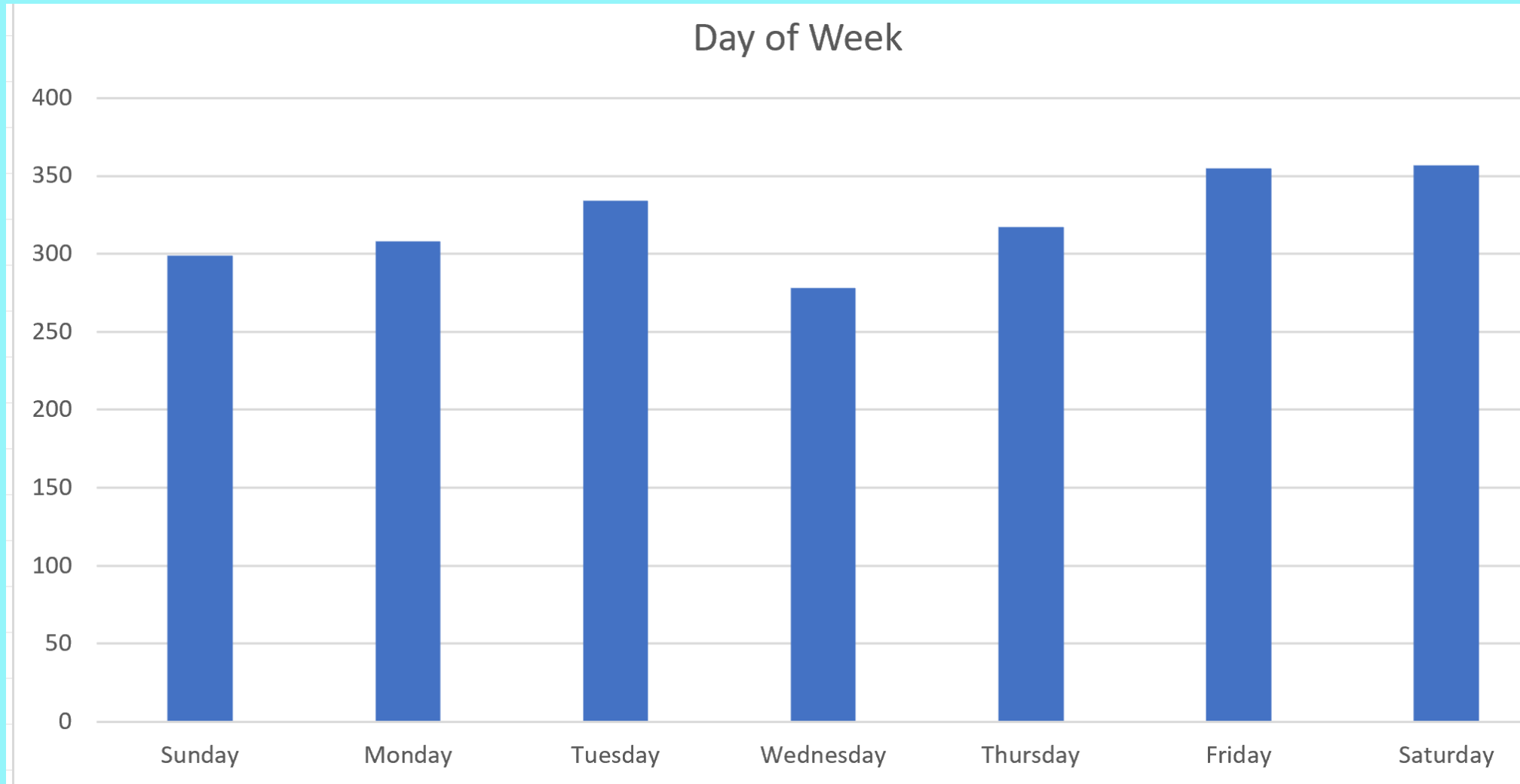
# Calls by Month – “Maineville Rural Fire Rescue”



# Calls by Time of Day – “Maineville Fire Rescue”



# Calls by Day of Week – “MFR”



# Accelerating Cost Increases: 2013 vs. 2023 (Approximate)

- Ambulance: \$120,000 - \$200,000 vs. \$180,000 – \$390,000
- Stretcher and Mounting: \$4,500 - \$15,000 vs. \$20,000 - \$50,000
- Cardiac Monitor: \$15,000 - \$25,000 vs. \$25,000 - \$40,000
- CPR Compression (e.g. LUCAS) Device: NA vs. \$17,000 - \$22,000
- Paramedic: \$14 - \$25 per hour vs. \$23 - \$40 per hour
- Medicare/Medicaid: 70% of Patient Revenue -

<b>Call Volume</b>	<b>300</b>	<b>600</b>	<b>900</b>
<b>Cost per Call</b>	\$2,522.06	\$ 1,301.37	\$ 894.47
<b>Reimbursement per Call</b>	\$ 491.99	\$ 491.99	\$ 491.99
<b>Loss per Transport</b>	\$ 2,030	\$ 809	\$ 402



## NON-TRANSPORTS

*On Average, 26% of requests do NOT result in transport and do NOT result in payment*

## “RULES OF THUMB – NOT?”

- *How much does it cost to start a small ambulance service in the first year?*
- *How many calls a year does it take to financially break even?*

# “MFR” Three Options: Budget Summary

	Current	2023/24 Inflation Only	2023/24 Infl. + 1 FTE	2023/24 Infl. + 2 FTE
03 TELEPHONE	\$1,800.00	\$2,200.00	\$2,200.00	\$2,200.00
04 UNIFORMS	\$2,000.00	\$2,500.00	\$2,500.00	\$2,500.00
06 IT SUPPORT	\$4,000.00	\$4,000.00	\$4,000.00	\$4,000.00
07 SUPPLIES	\$12,000.00	\$13,000.00	\$13,000.00	\$13,000.00
16 TRAINING	\$7,500.00	\$7,500.00	\$7,500.00	\$7,500.00
19 DUES	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
20 MISCL.	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
21 BILLING	\$7,000.00	\$9,000.00	\$9,000.00	\$9,000.00
43 CHIEF SALARY	\$16,000.00	\$16,000.00	\$16,000.00	\$16,000.00
44 ALS & OTHER BACK UP	\$9,000.00	\$30,000.00	\$30,000.00	\$30,000.00
46 DUTIES STIPENDS/PAYROLL	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00
47 PER DIEM EMPLOYEES	\$464,280.00	\$464,280.00	\$403,128.00	\$341,976.00
FULL-TIME EMPLOYEES	\$0.00	\$0.00	\$126,784.00	\$253,568.00
73 VEHICLE MAINTENANCE	\$7,000.00	\$9,000.00	\$9,000.00	\$9,000.00
74 FUEL	\$9,000.00	\$11,000.00	\$11,000.00	\$11,000.00
79 EQUIPMENT REPAIR	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00
81 NEW EQUIPMENT	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00
82 AEDS	\$1,500.00	\$2,000.00	\$2,000.00	\$2,000.00
91 MEDICAL DIRECTOR	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
92 INFECTION CONTROL	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00
93 OXYGEN	\$2,500.00	\$4,000.00	\$4,000.00	\$4,000.00
94/ 95/98 SS/WC/INS	\$45,000.00	\$56,000.00	\$56,000.00	\$56,000.00
TOTALS	\$650,580.00	\$692,480.00	\$758,112.00	\$823,744.00