



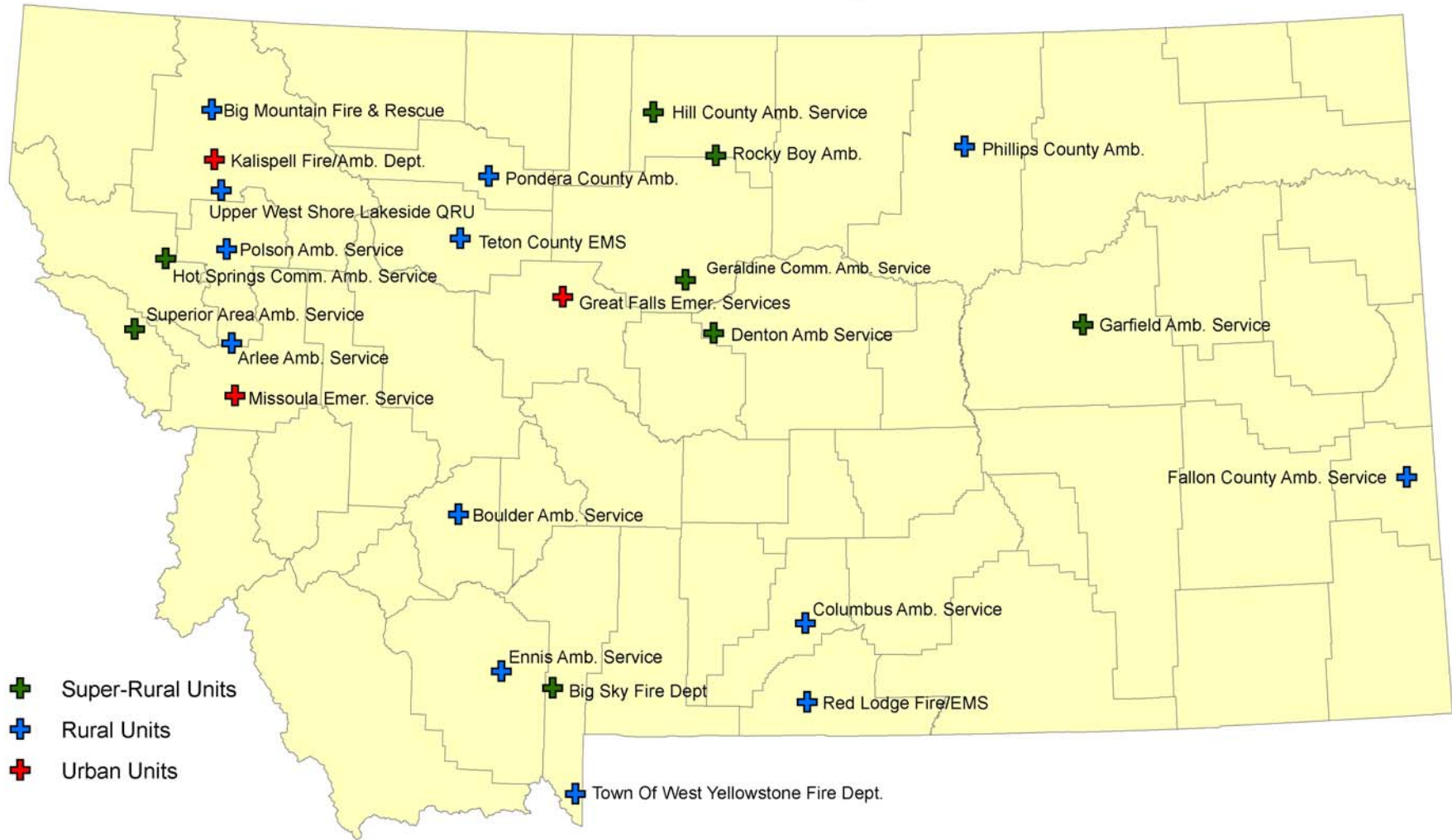
# Emergency Medical Services (EMS) in Montana

Presentation by the  
**Legislative Audit Division**

**To the Children, Families, Health and Human Services Legislative Interim Committee**

January 25, 2008

## Services Visted During Fieldwork





# Areas of Discussion

- EMS Incidents
- EMS Units
- EMS Workforce



# EMS INCIDENTS

- Number of Incidents
- Characteristics of Incidents
- Demographics of Individuals Using EMS

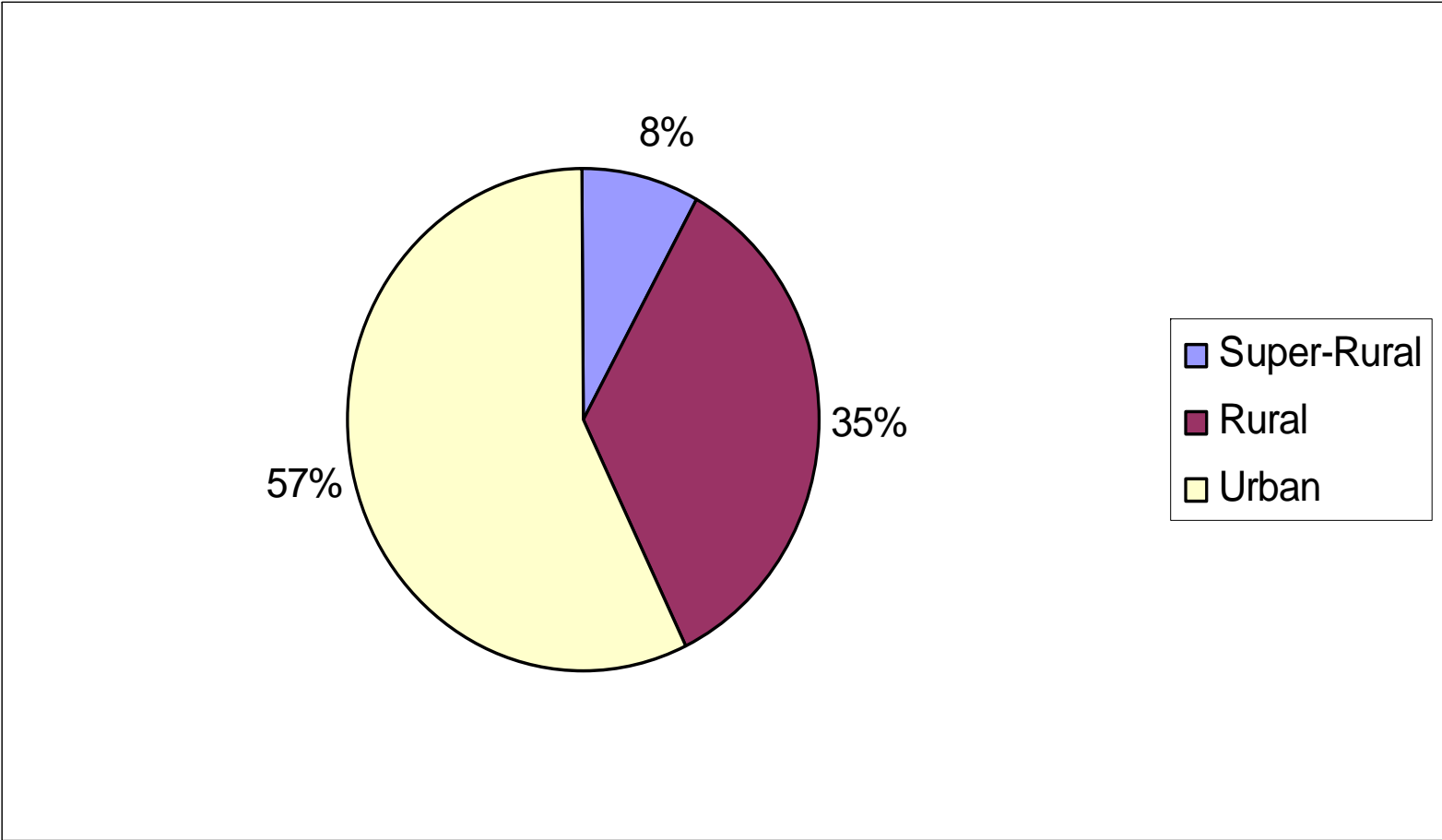


# Estimated Total Number of EMS Incidents in CY2006

- Statewide Total = 72,382
- Up to 30% did not result in a patient transport.

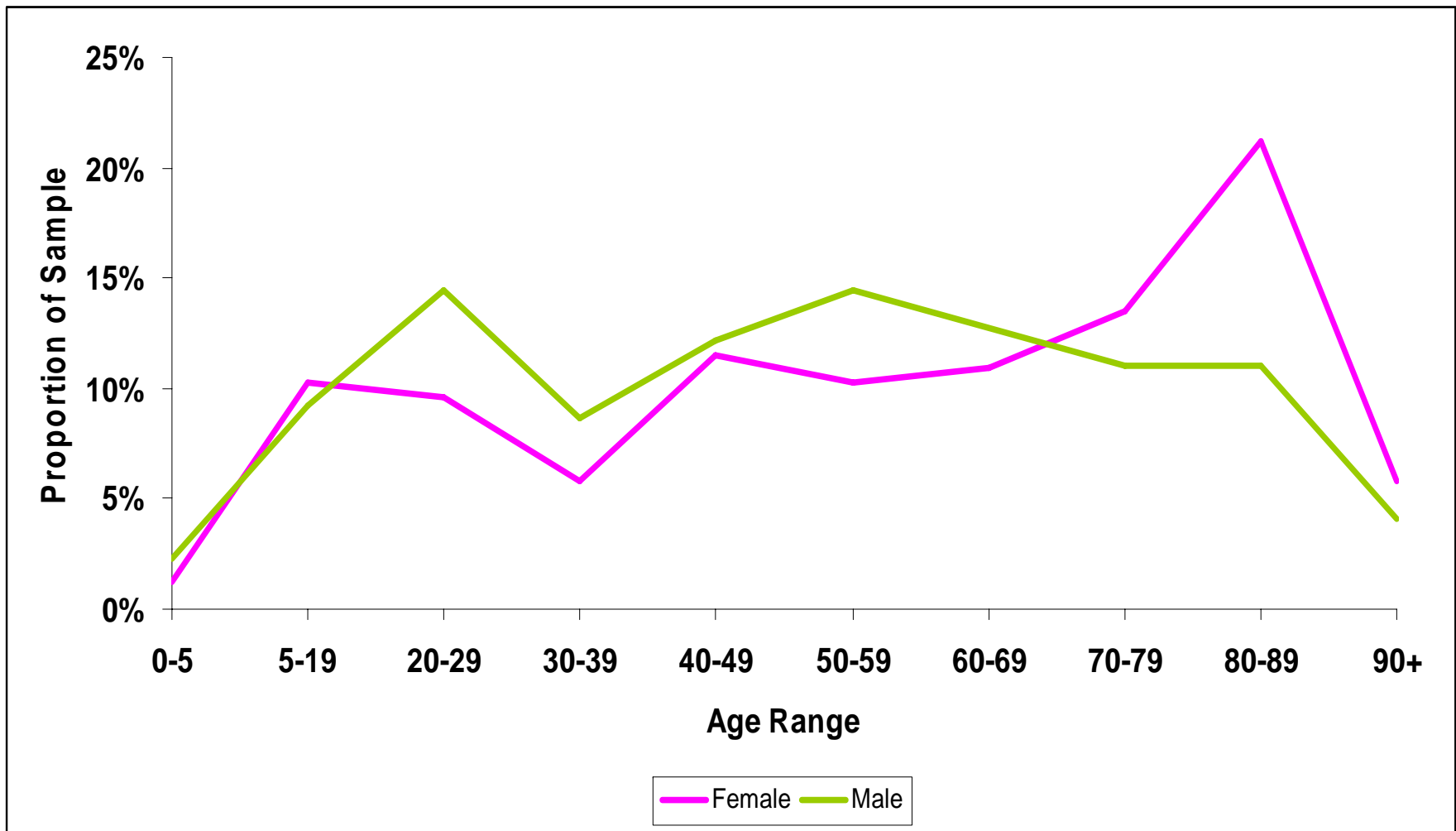
Source: Compiled by LAD from EMS unit records using variable sampling methodologies.

# Occurrence of EMS Incidents by Population Designation



Source: Compiled by LAD from EMS unit records using variable sampling methodologies.

# Age Data by Gender



Source: Compiled by LAD from sampled patient care records.



# Reasons for Calling 911 for EMS Care

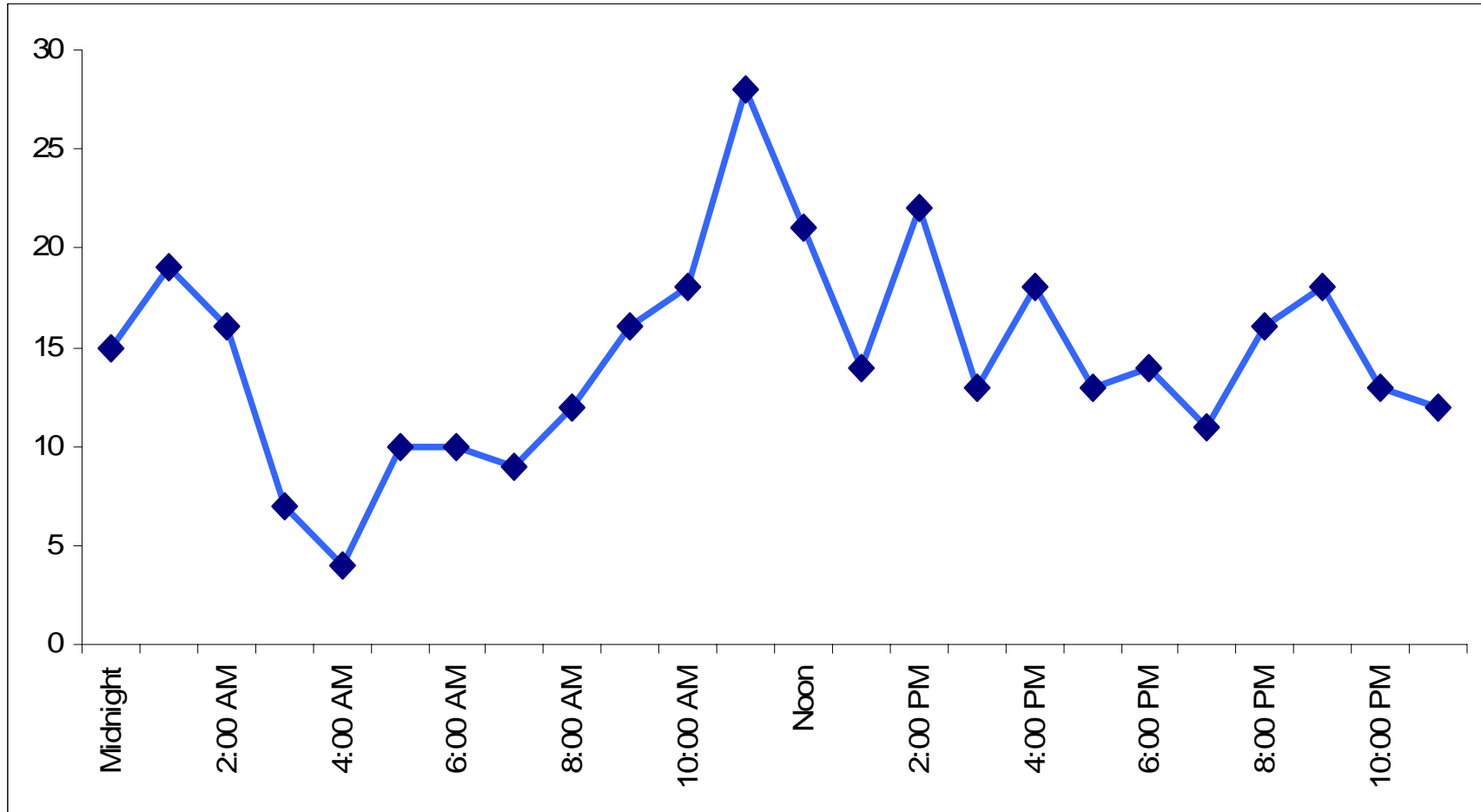
Type of Incident	Percentage
Medical	58%
Motor Vehicle Crash	16%
Trauma	9%
Suicide/Suicide Attempt	5%
Cardiac-Related Medical	4%
Other/Miscellaneous	3%
Criminal Assault	3%
Alcohol and Drug Related	1%

Type of Scene	Percentage
Home/Residence	51%
Street or Highway	21%
Public Building	12%
Health Care Facility	5%
Miscellaneous (Trade, Fire, Ranch)	6%

Source: Compiled by LAD from sampled patient care records.



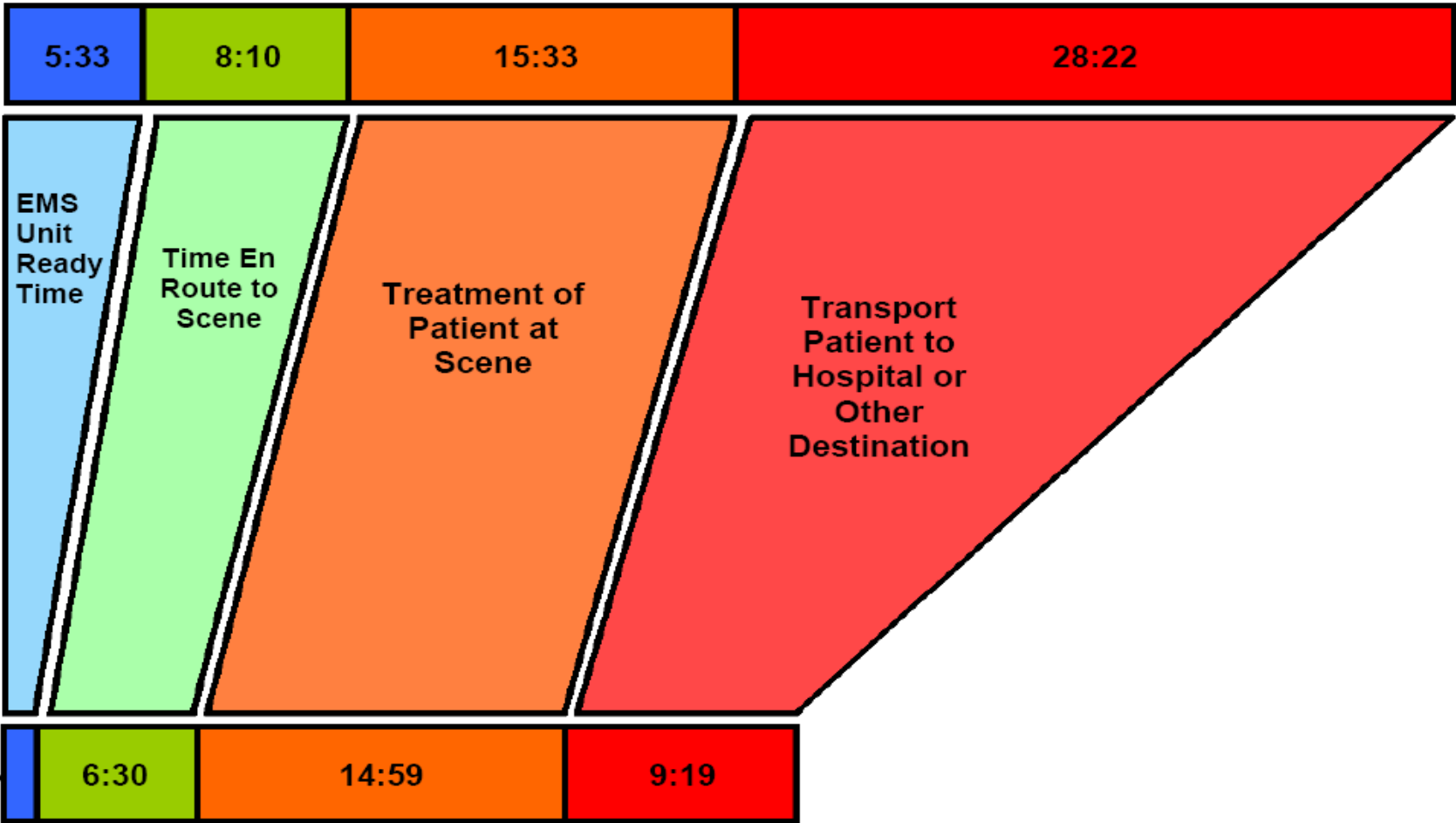
# Time of Day Data



Source: Compiled by LAD from sampled patient care records.

# Rural EMS Response

Total Incident Time 57:38



# Urban EMS Response

Total Incident Time 32:05

Source: Compiled by LAD from sampled patient care records.



# Insurance Information

Type of Insurance Coverage	Percentage
MEDICARE	39%
NO INSURANCE	28%
PRIVATE INSURANCE	17%
MEDICAID	11%
INDIAN HEALTH SERVICES	2%
VA	1%
CONTRACT / 911	0.7%
WORK COMP	0.5%

Source: Compiled by LAD from professional billing service records.



# EMS UNITS

- Information on how units are organized and funded.
- Location of EMS units to the statewide total population and to populations on American Indian Reservations.

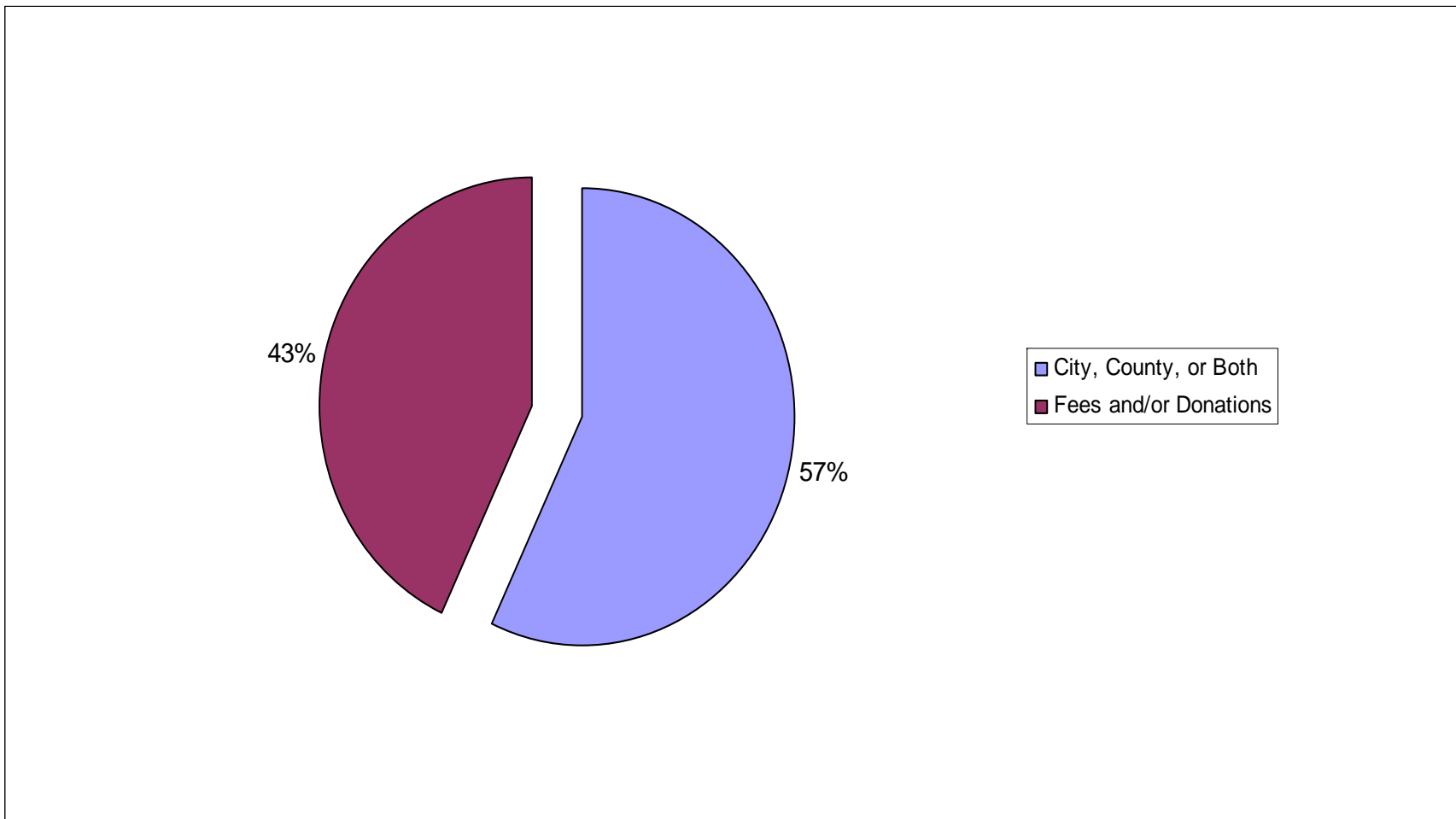


# EMS Unit Organization/Classification

- Industrial
- Private
- Hospital
- City
- County
- Volunteer
- Fire Department
- Law Enforcement
- Non-Profit corporation
- Tribal
- Other

- Public
- Private
- Fire
- Hospital Based

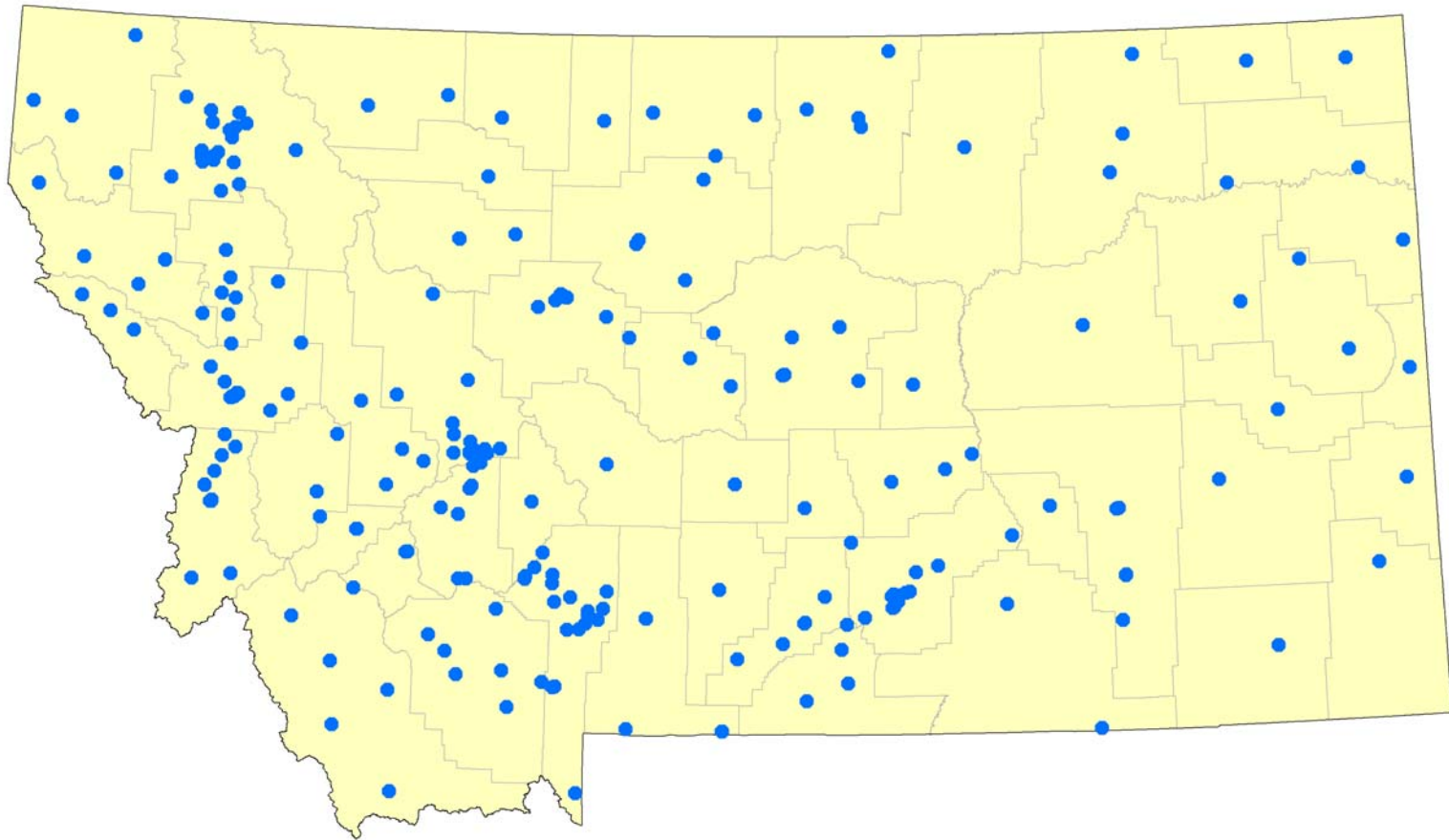
# Primary Funding Sources



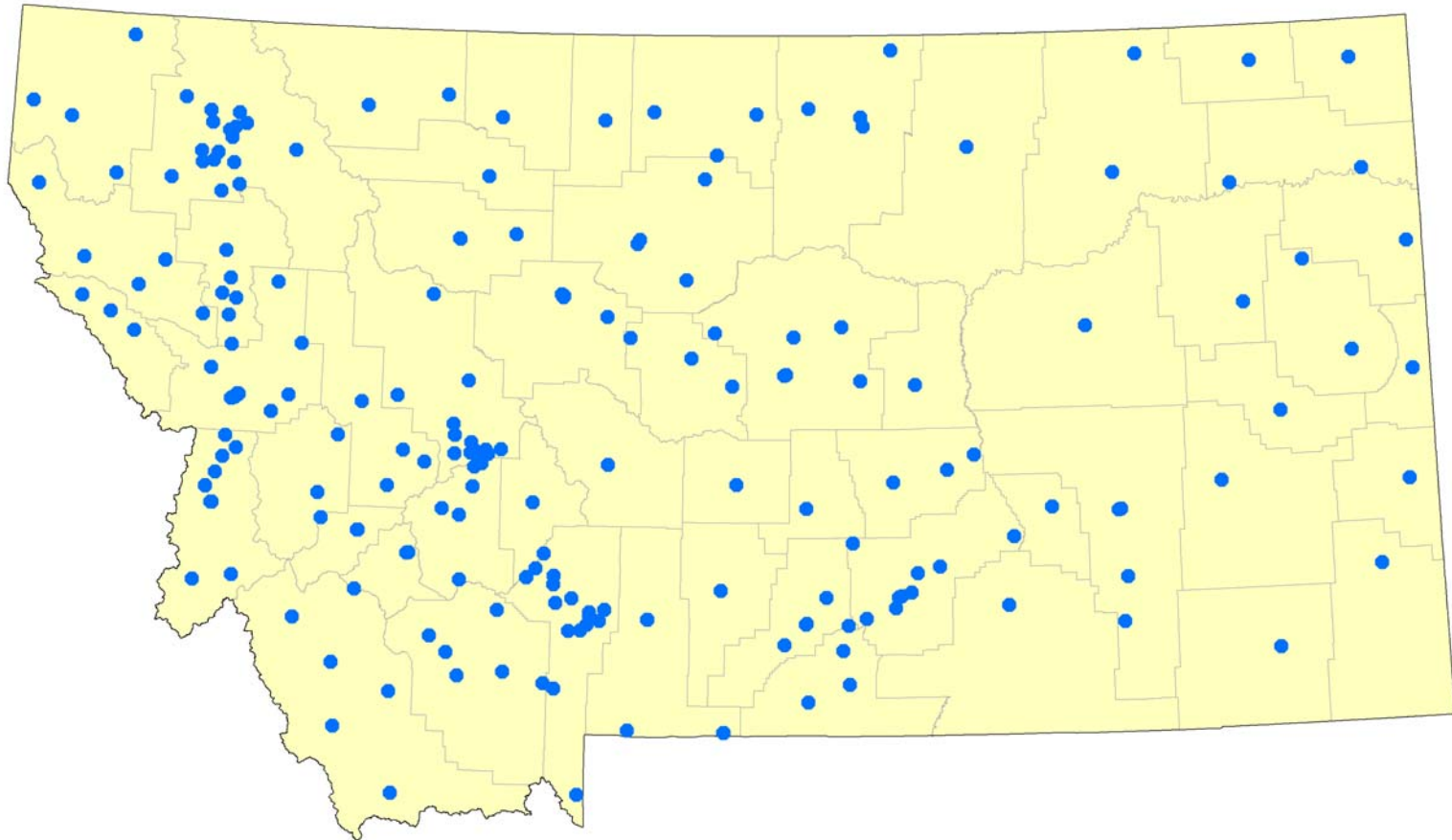
Source: Compiled by LAD from DPHHS records (EMS license applications).



# Licensed EMS Units

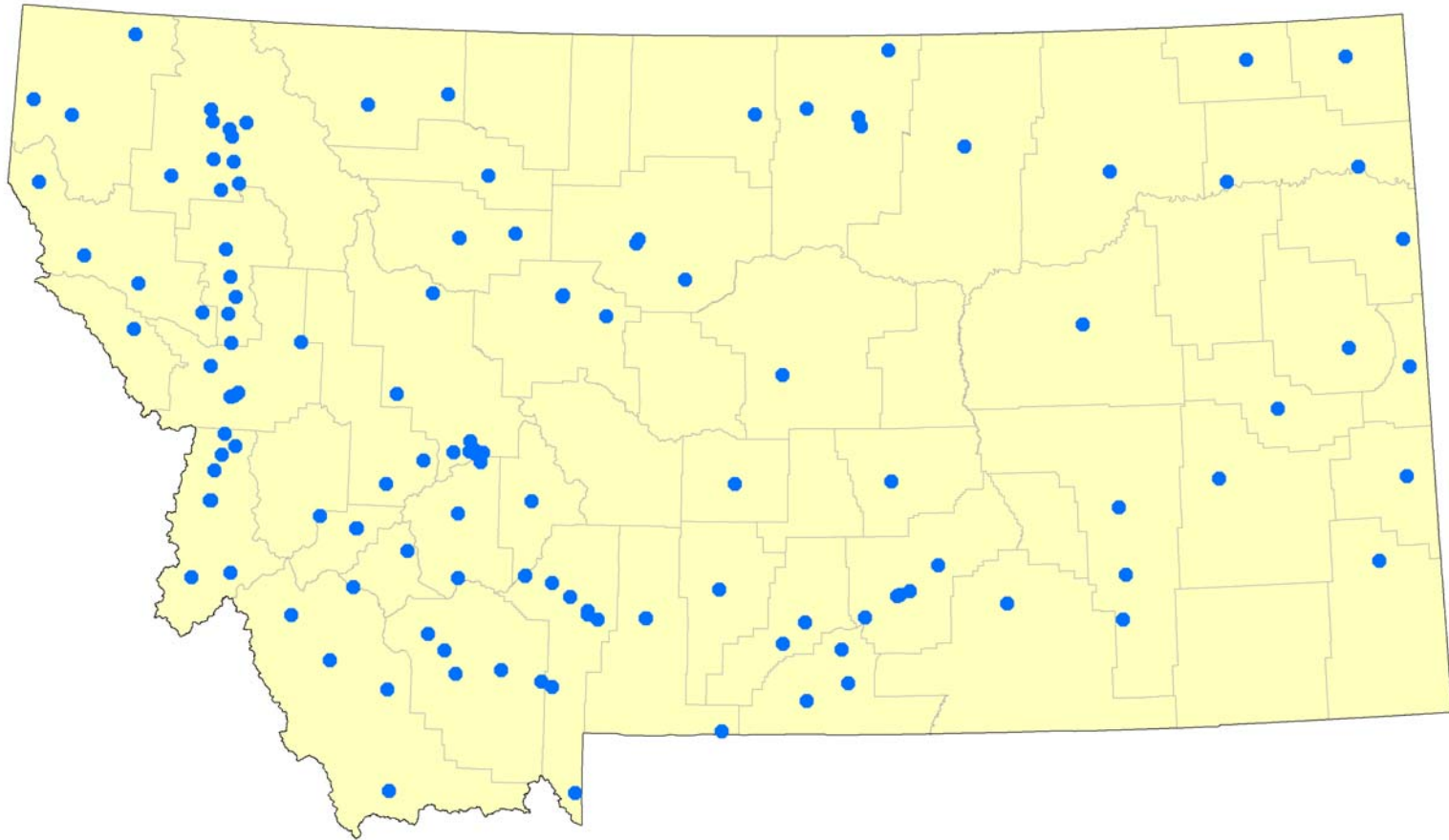


# 911 Responding EMS Units





# Some Level of Advanced Care





# Proximity of Montana's Population to EMS Urban vs. Rural

<b>Within 5 Miles of an EMS Unit</b>		
<b>Type of EMS Unit</b>	<b>Urban</b>	<b>Rural</b>
All 911 Responding Units	97%	72%
Some Level of ALS Care Units	62%	50%
ALS Care 24/7 Units	83%	18%

<b>Within 10 Miles of an EMS Unit</b>		
<b>Type of EMS Unit</b>	<b>Urban</b>	<b>Rural</b>
All 911 Responding Units	100%	85%
Some Level of ALS Care Units	77%	66%
ALS Care 24/7 Units	93%	27%

<b>Within 30 Miles of an EMS Units</b>		
<b>Type of EMS Unit</b>	<b>Urban</b>	<b>Rural</b>
All 911 Responding Units	100%	99%
Some Level of ALS Care Units	100%	92%
ALS Care 24/7 Units	95%	55%

Source: Compiled by LAD from DPHHS records and 2000 U.S. Census Bureau data.



## Montana's American Indian Reservation and Rural Populations Proximity to EMS Comparison

	American Indian Reservations Population	Rural Population
<b>5 Miles</b>	59%	72%
<b>10 Miles</b>	70%	85%
<b>30 Miles</b>	95%	99%

Source: Compiled by LAD from DPHHS records and 2000 U.S. Census Bureau data.



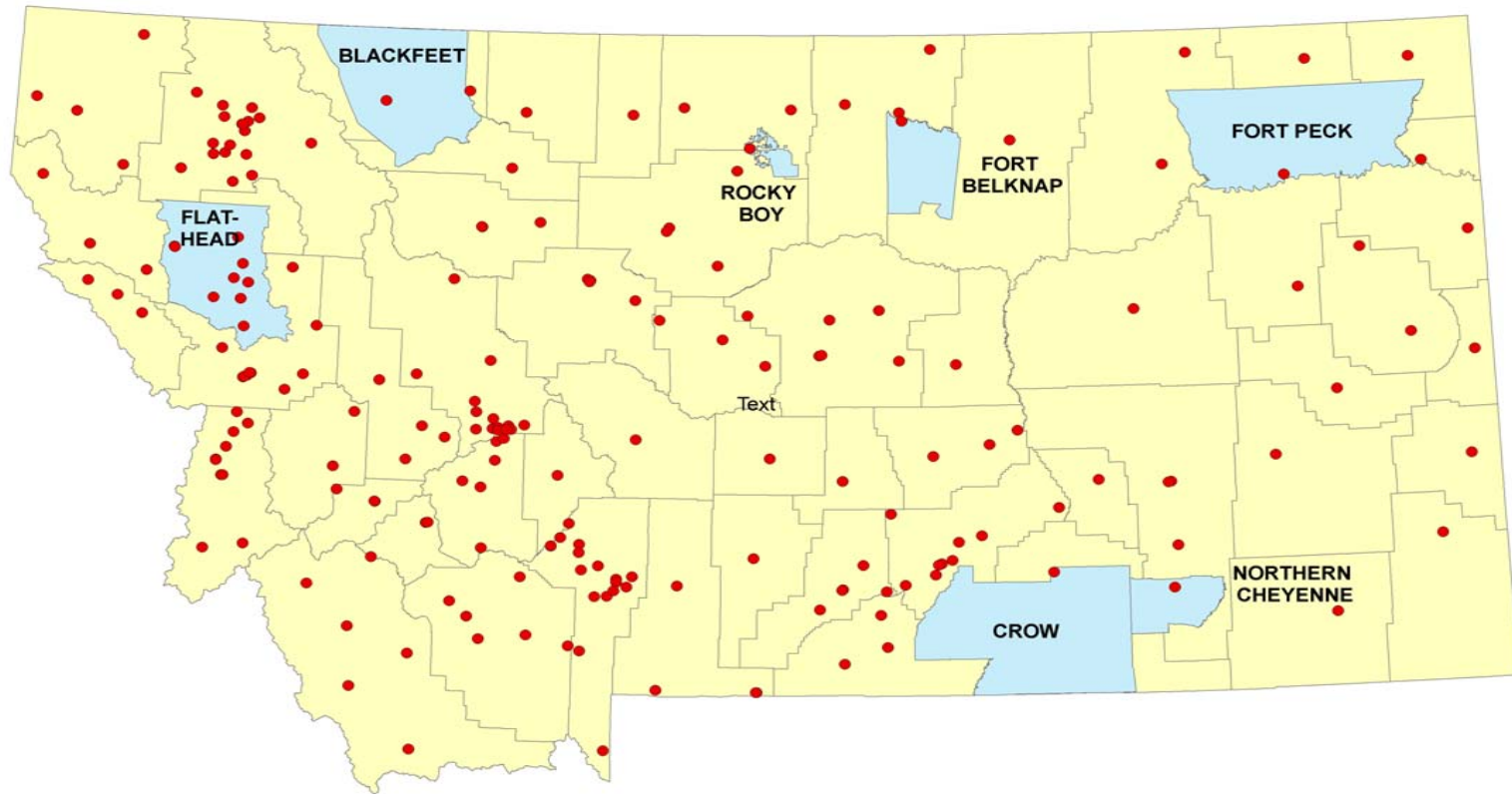
## American Indian Population on Reservations and Proximity to EMS per Reservation

<b>American Indian Reservation</b>	<b>5 Miles</b>	<b>10 Miles</b>	<b>30 Miles</b>
<b>Blackfeet</b>	61%	70%	99%
<b>Crow</b>	13%	23%	69%
<b>Flathead</b>	83%	97%	100%
<b>Fort Belknap</b>	48%	49%	63%
<b>Fort Peck</b>	41%	47%	100%
<b>Northern Cheyenne</b>	60%	64%	100%
<b>Rocky Boy</b>	32%	68%	100%

Source: Compiled by LAD from DPHHS records and 2000 U.S. Census Bureau data.



## Proximity of EMS Units to American Indian Reservations in Montana



Source: Compiled by LAD from DPHHS records and 2000 U.S. Census Bureau data.



# EMS WORKFORCE

Emergency Medical Technicians (EMTs)

- Approximately 4600 EMTs
- Number of EMTs per Capita
- Practicing EMTs vs. Licensed EMTs
- Demographics
- Turnover



## Number of Licensed EMTs per Capita

- In Montana, 5 EMTs per 1000 individuals.
- The national average is approximately 3 EMTs per 1000 individuals.

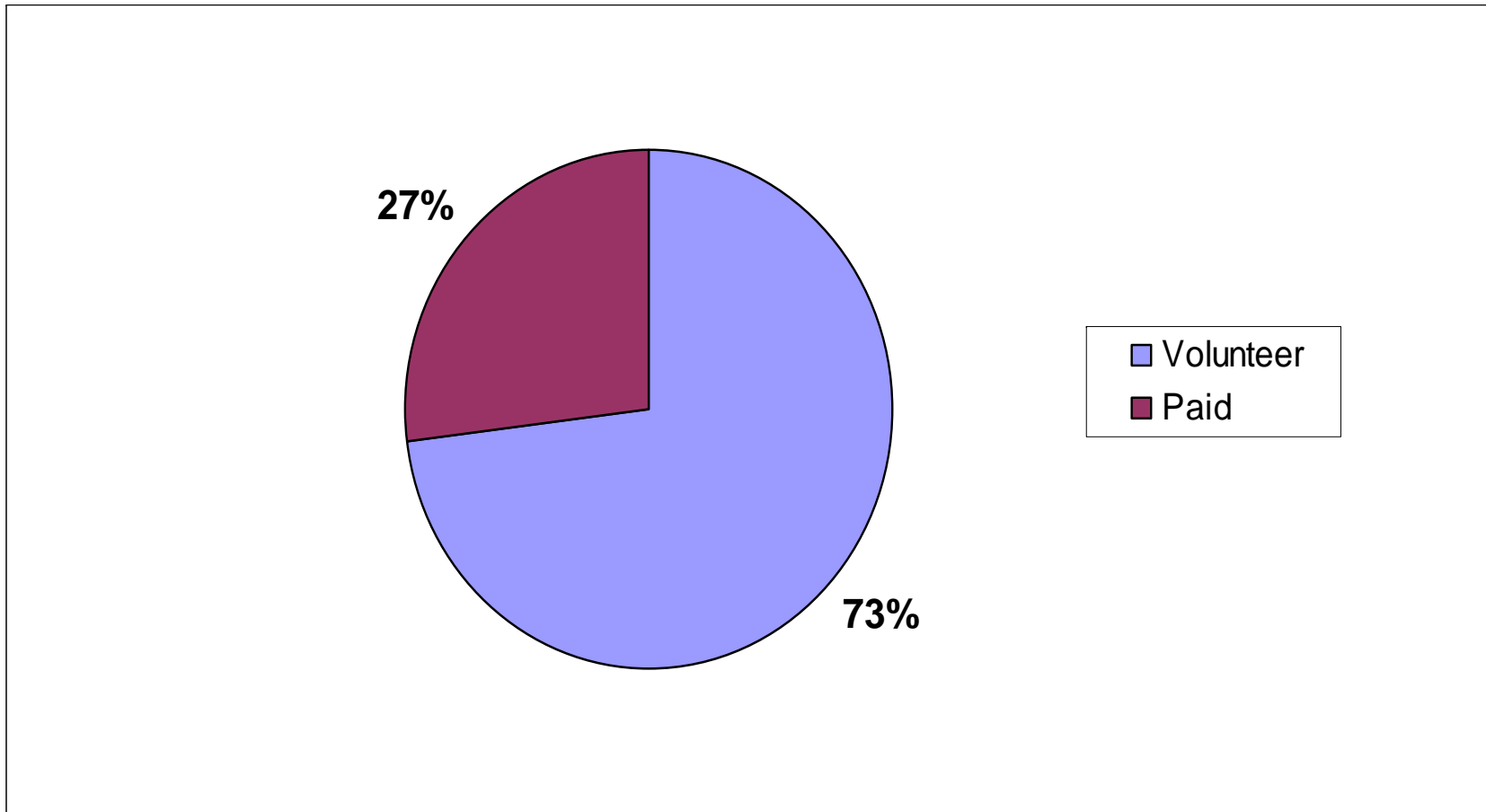




# Practicing EMTs

- Number of licensed EMTs on EMS Unit rosters actually practicing EMS care.
  - 57% -- All EMS Units
    - 91% -- Paid Units
    - 48% -- Volunteer or Combination of Paid/Volunteer Units

# Percentage of EMS Units Identifying Service Personnel as Paid or Volunteer



Source: Compiled by LAD from DPHHS hard copy records (EMS license applications).



# EMS Units vs. Number of EMTs

Type of Compensation	Number of Units	Number of EMTs	Percentage
Paid	79	2,186	47%
Volunteer	181	2,462	53%

Source: Compiled by LAD from DPHHS information systems.



# Age Data for EMTs

<b>Age Range (years)</b>	<b>Total</b>
18-29	20%
30-39	25%
40-49	28%
50 and older	28%

Source: Compiled by LAD from BOME records.



# Length of Service for EMTs

Years of Service	Total
0-3	37%
4-6	24%
7-9	17%
10 or more	22%

Source: Compiled by LAD from BOME records.



# Turnover in the Profession

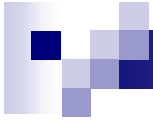
- Turnover exists.
- High stress occupation.
- Work is volunteer in nature in MT.
- All services facing issues with turnover, and rural volunteer services more affected.
- Detailed analysis of turnover in the profession in the audit report.



# Summary of Workforce Data

## ■ EMTs:

- The total number of licensed EMTs does not reflect an accurate number of EMT practitioners.
- The work is considerably volunteer in nature in MT, primarily in rural areas
- Many have less than 3 years experience.
- Turnover is occurring—retention averages 6-8 years.



Questions?