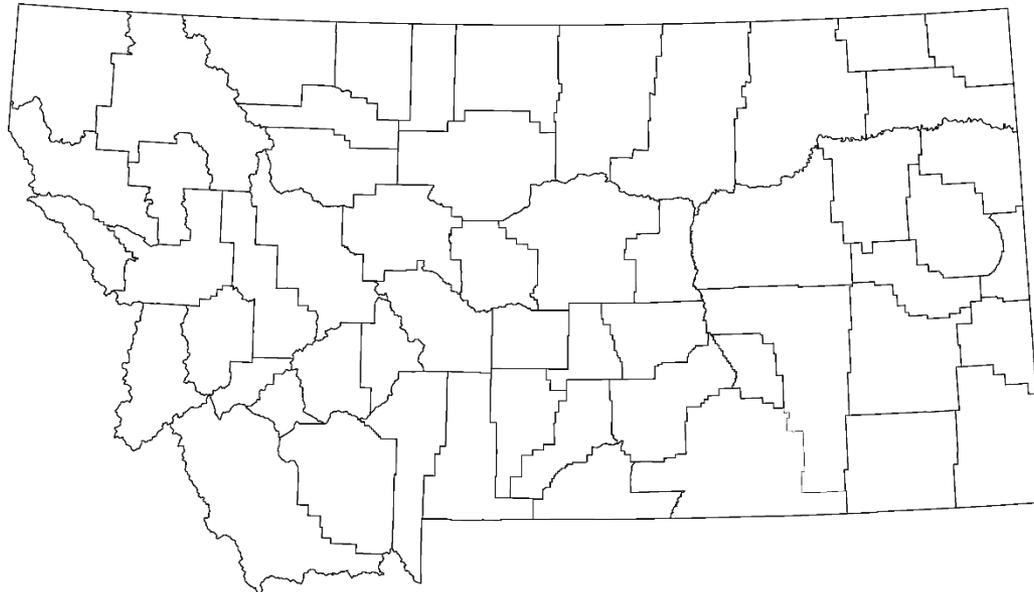


# Mobile Data Survey Results

## State of Montana

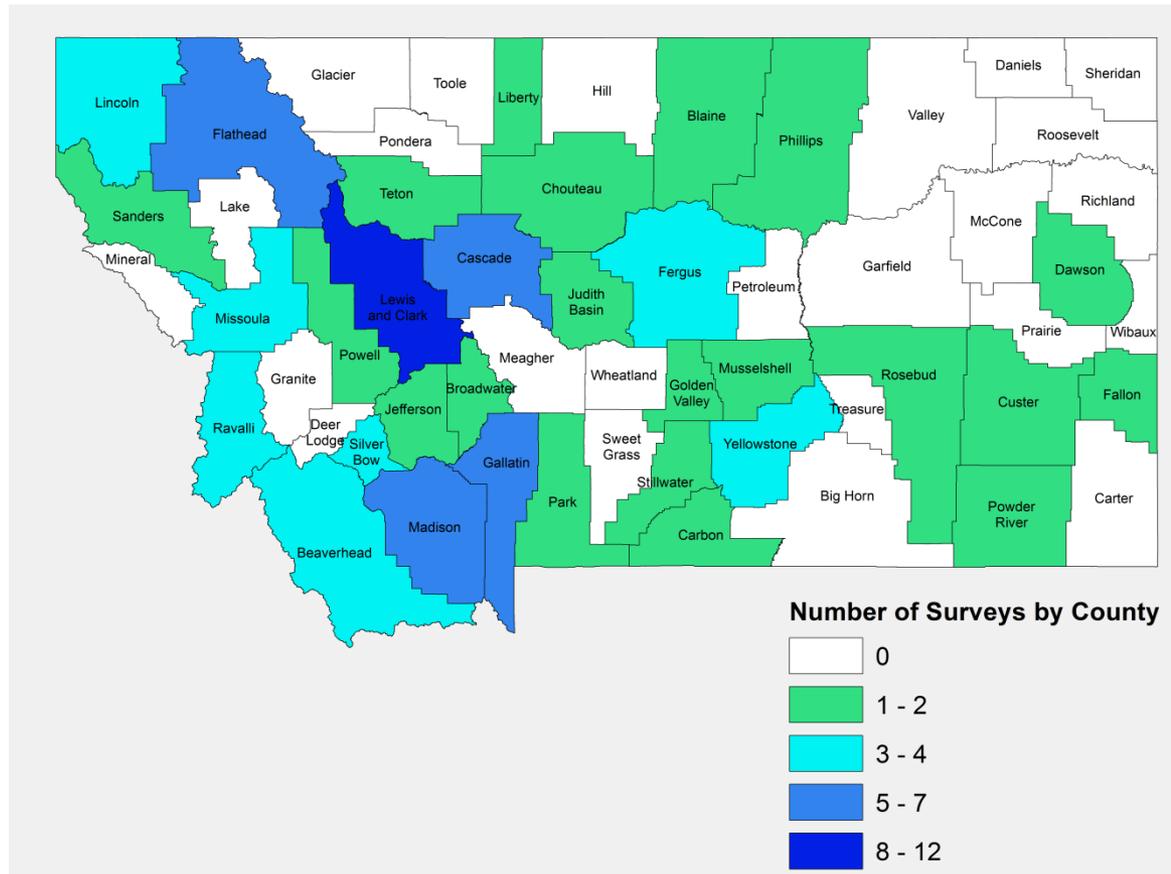
September 2015



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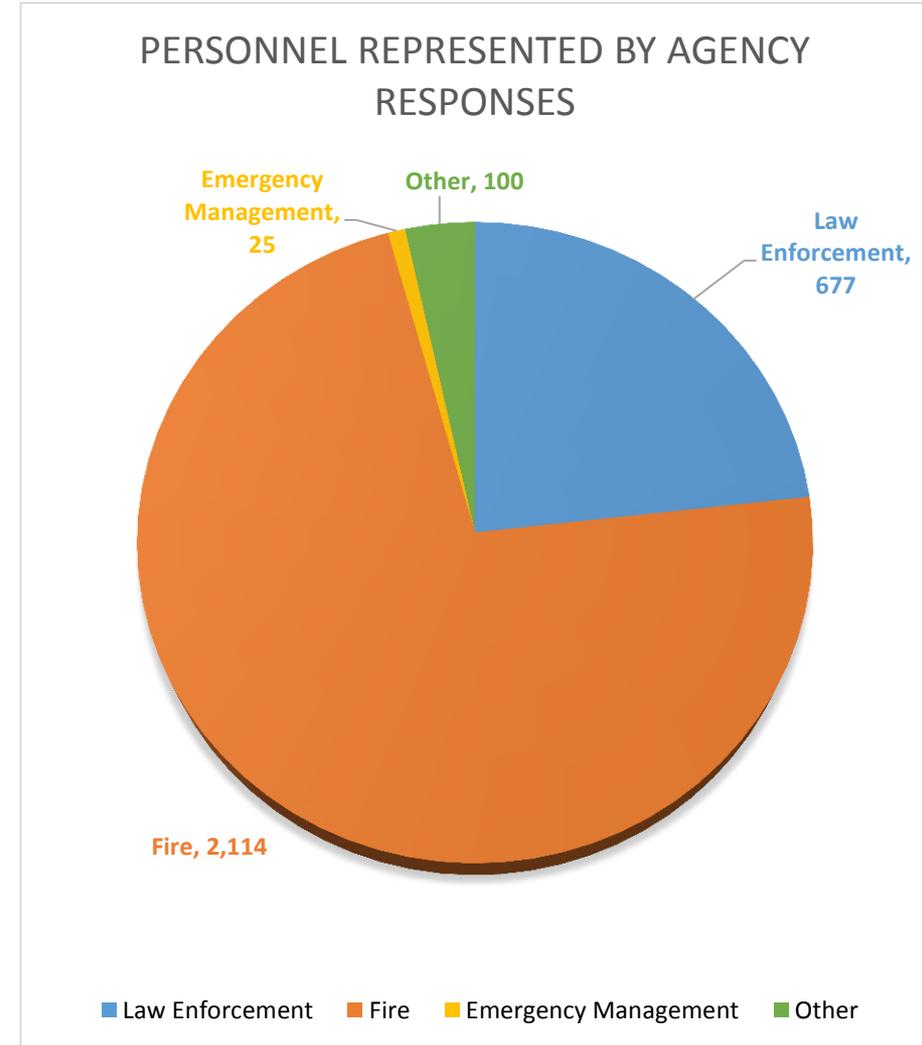
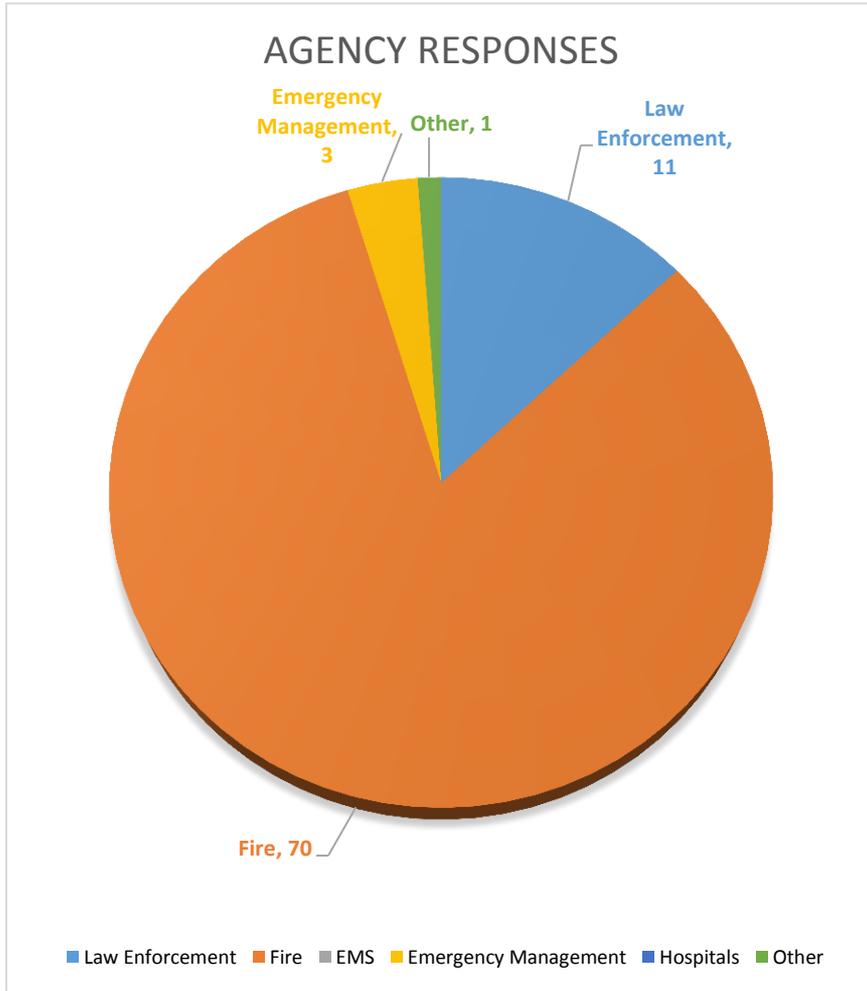
# Survey Responses

## Total of 85 Agency Responses

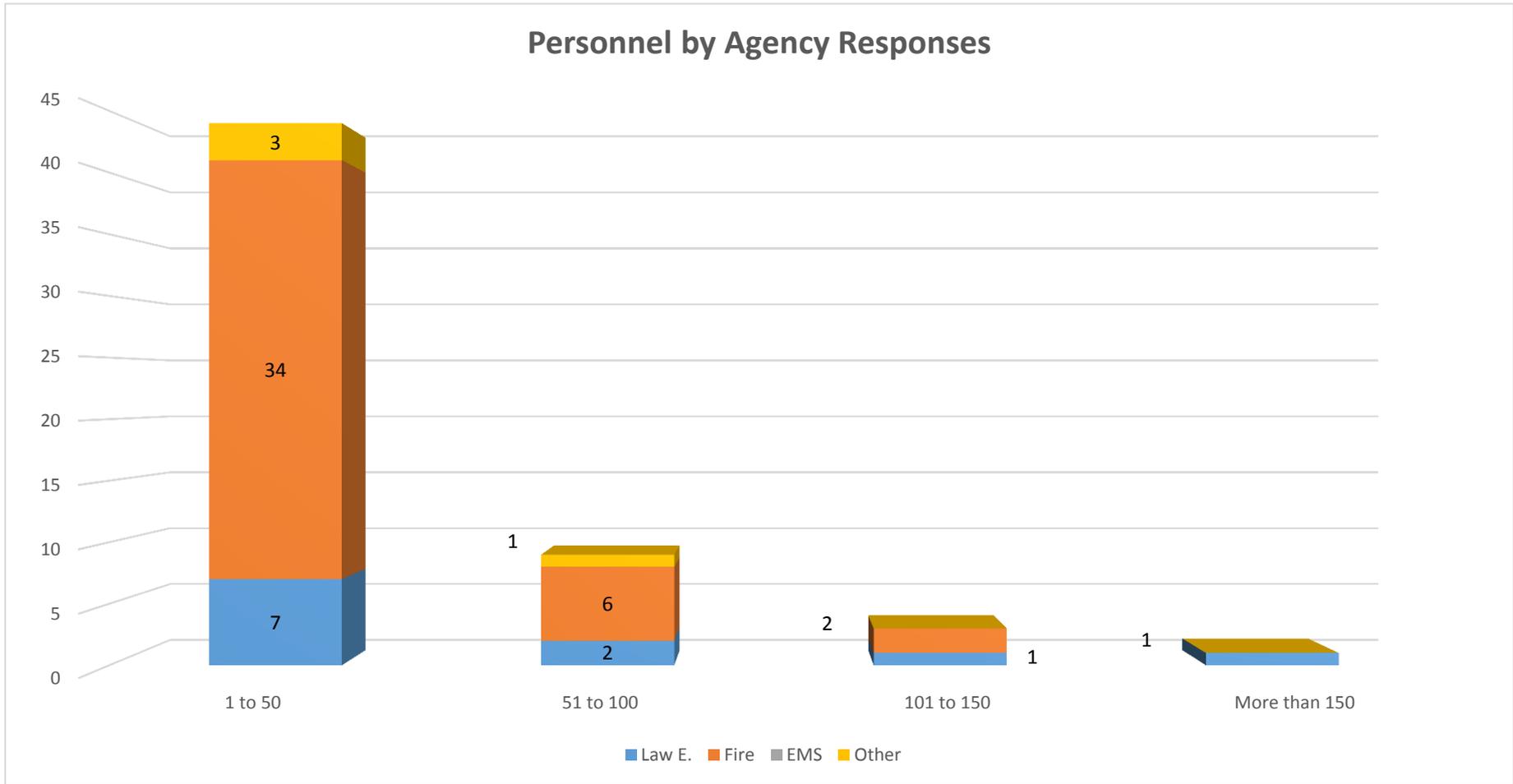


# Survey Responses

## Total of 85 Agency Responses



# Agencies by Department Size



**Total of 85 Agency Responses**

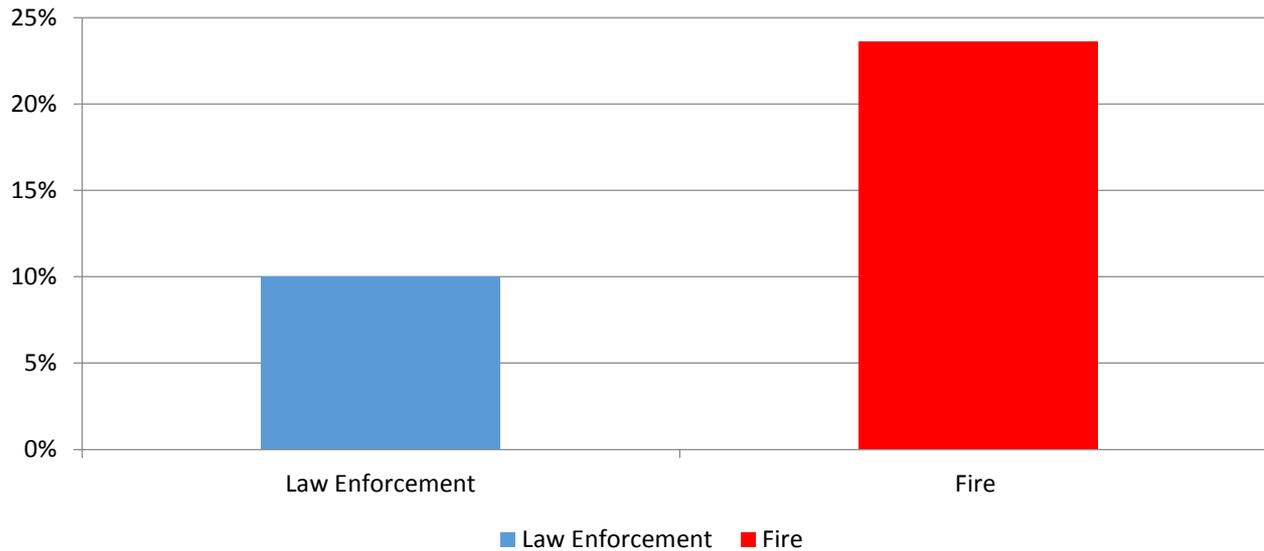
\*Agencies who did not provide personnel numbers are listed in this graph



**Homeland Security**

# First Responder Sample Size\*

% of Responses by Discipline



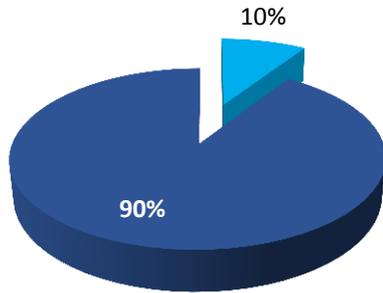
Discipline	Total Agencies	Total Sworn	% of Agencies Responded	% of Personnel Responded
Law Enforcement	110	1,498	10%	45.1%
Fire	296	5,604	23.6%	37.7%
EMS	70	1,235	-	-
<b>Total</b>	<b>476</b>	<b>8,337</b>	-	-

\*Compared to Estimated Existing Public Safety Disciplines in Montana



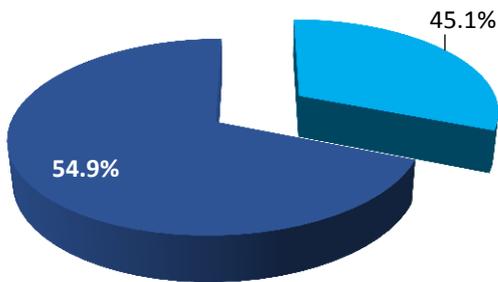
# First Responder Sample Size: Law Enforcement

% of Responses by Discipline

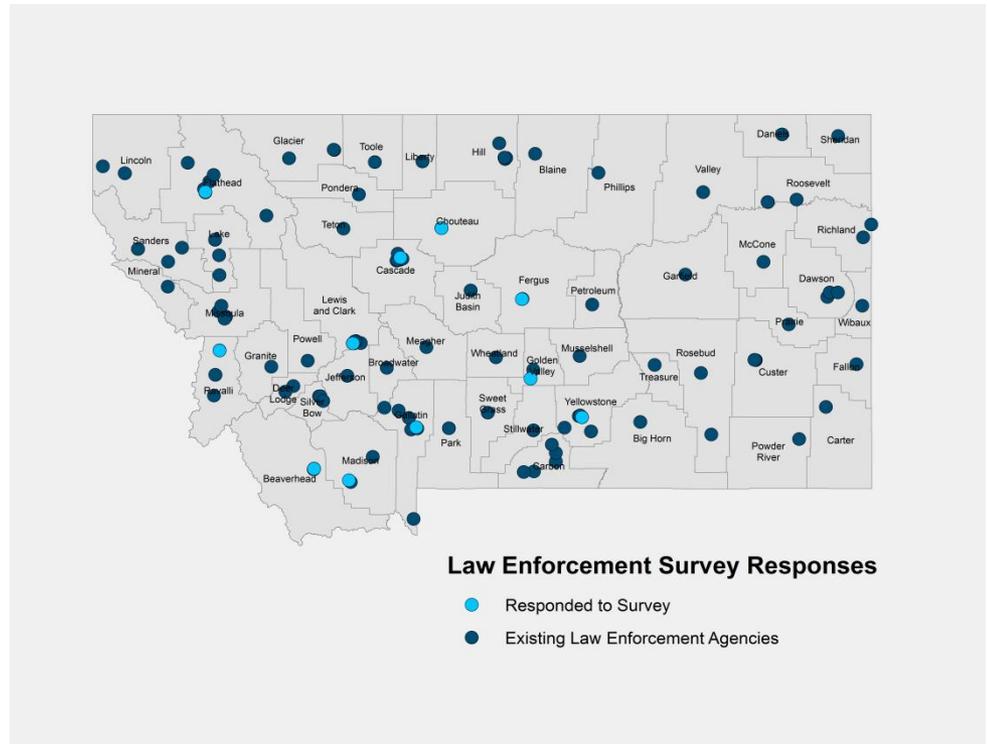


■ Law Enforcement Responded ■ Law Enforcement Did Not Respond

% of Responses by Personnel



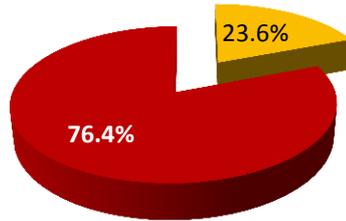
■ Law Enforcement Personnel Responded ■ Law Enforcement Personnel Did Not Respond



Homeland Security

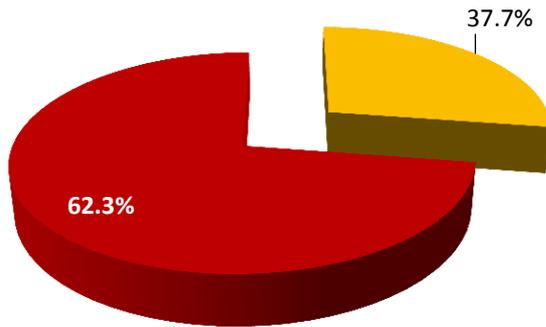
# First Responder Sample Size: Fire Departments

% of Responses by Discipline

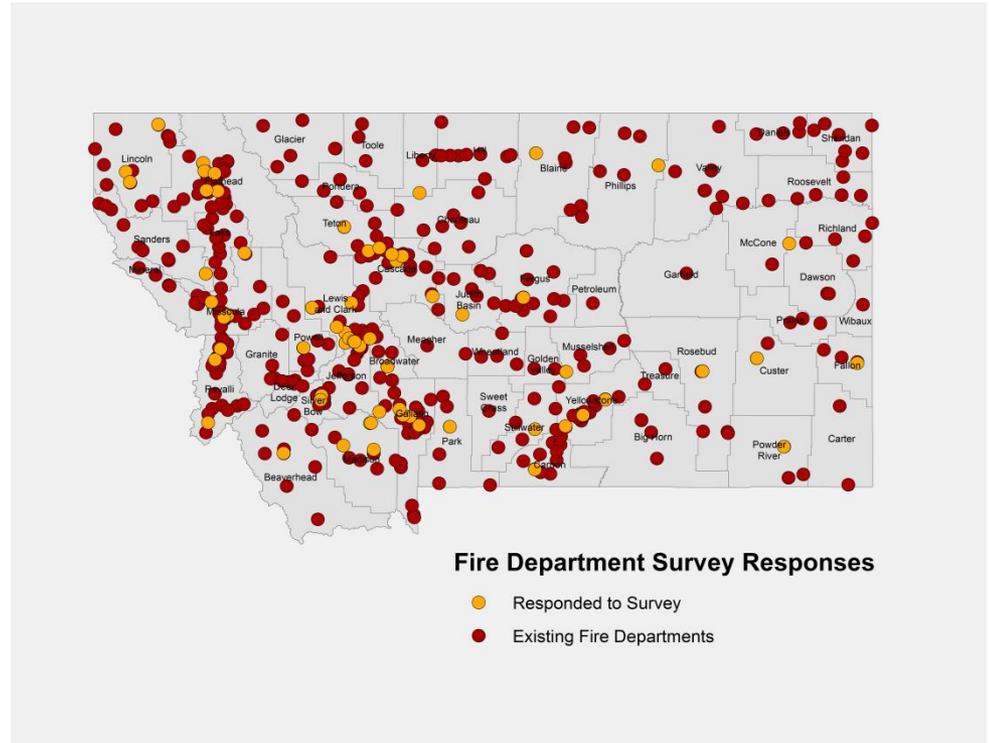


■ Fire Departments Responded ■ Fire Departments Did Not Respond

% of Responses by Personnel



■ Fire Personnel Responded ■ Fire Personnel Did Not Respond



# Personnel & Devices

### Responses By Discipline

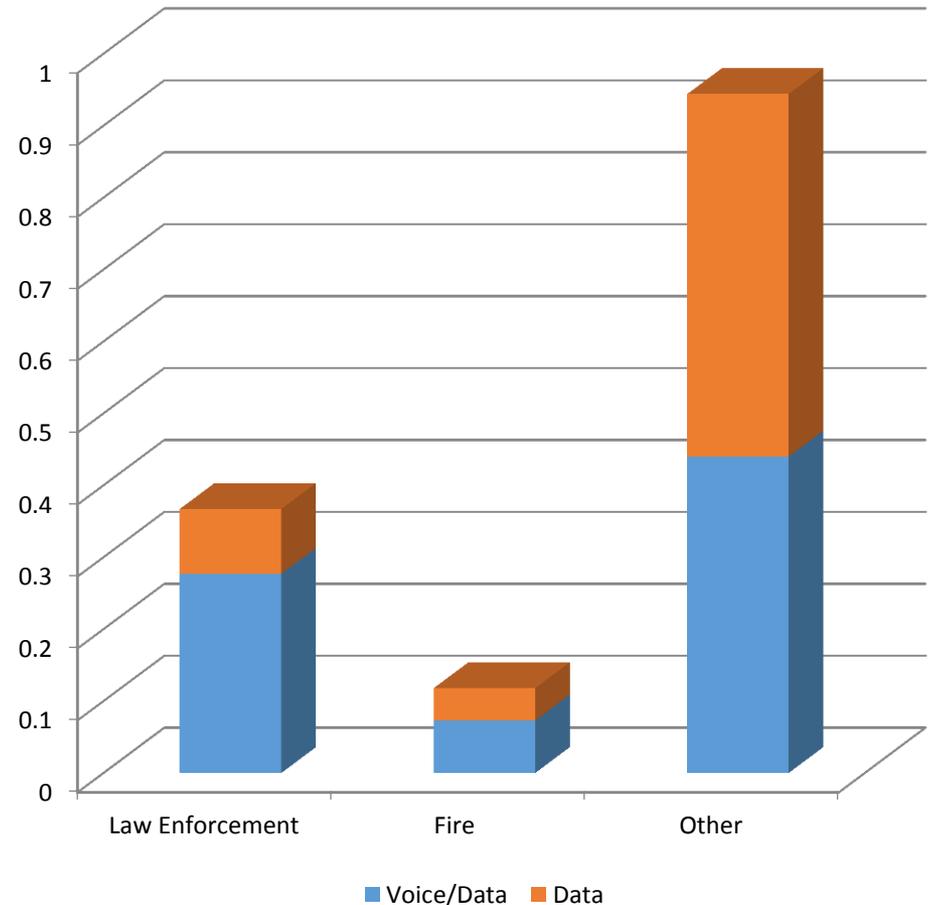
	Full Time	Part Time	Volunteers	Total Employees
Law Enforcement	567	14	96	677
Fire	591	131	1,392	2,114
Other	103	1	21	125
<b>Totals</b>	<b>1,261</b>	<b>146</b>	<b>1,509</b>	<b>2,916</b>

### Devices Issued to Personnel

	Voice/Data	Data Only	Other	Total
Law Enforcement	188	61	21	270
Fire	156	97	420	673
Other	55	63	103	221
<b>Total</b>	<b>399</b>	<b>221</b>	<b>544</b>	<b>1,164</b>

	Personnel	Total Voice/Data & Data Devices	Device per Personnel
Law Enforcement	677	249	.367
Fire	2,114	253	.119
Other	125	118	.944
<b>Total</b>	<b>2,916</b>	<b>620</b>	<b>.212</b>

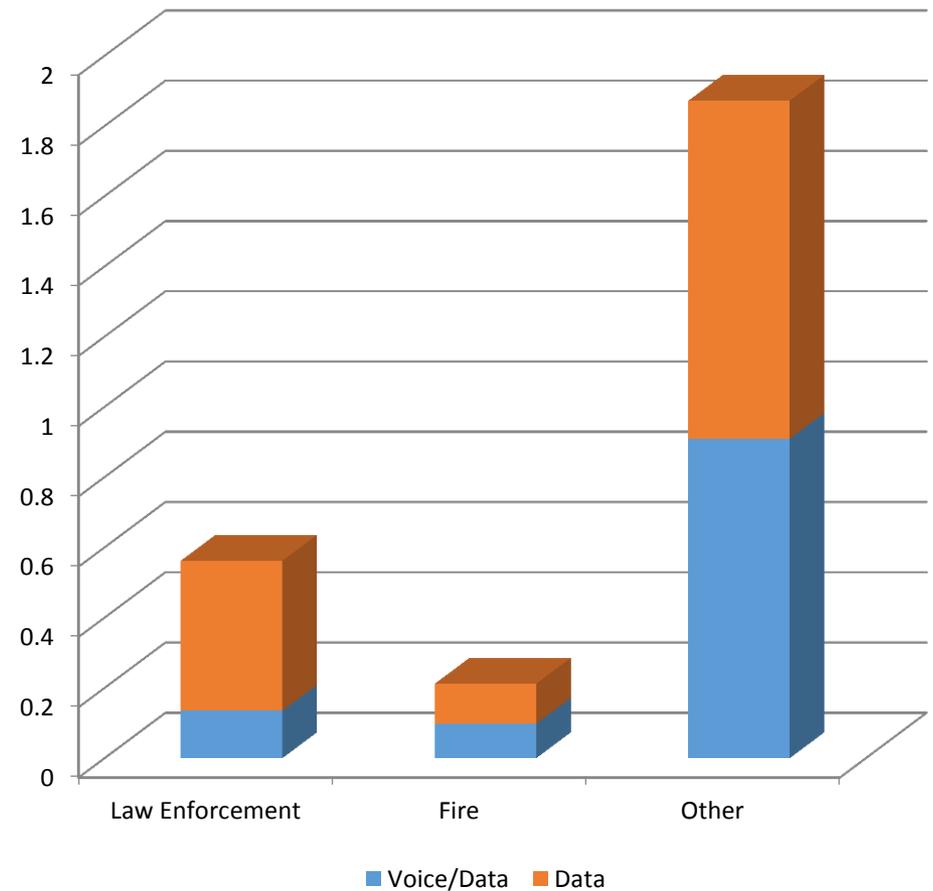
### Devices per Personnel



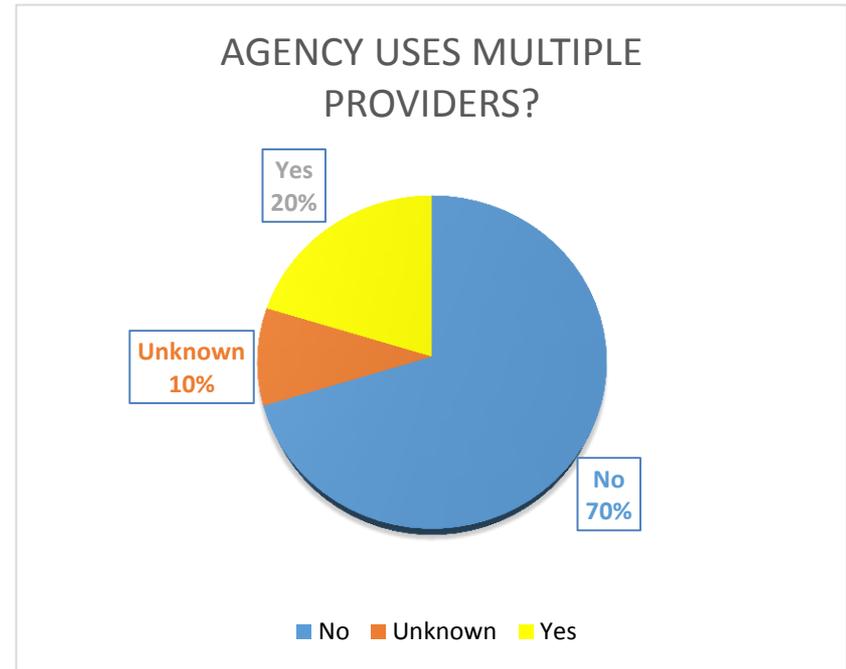
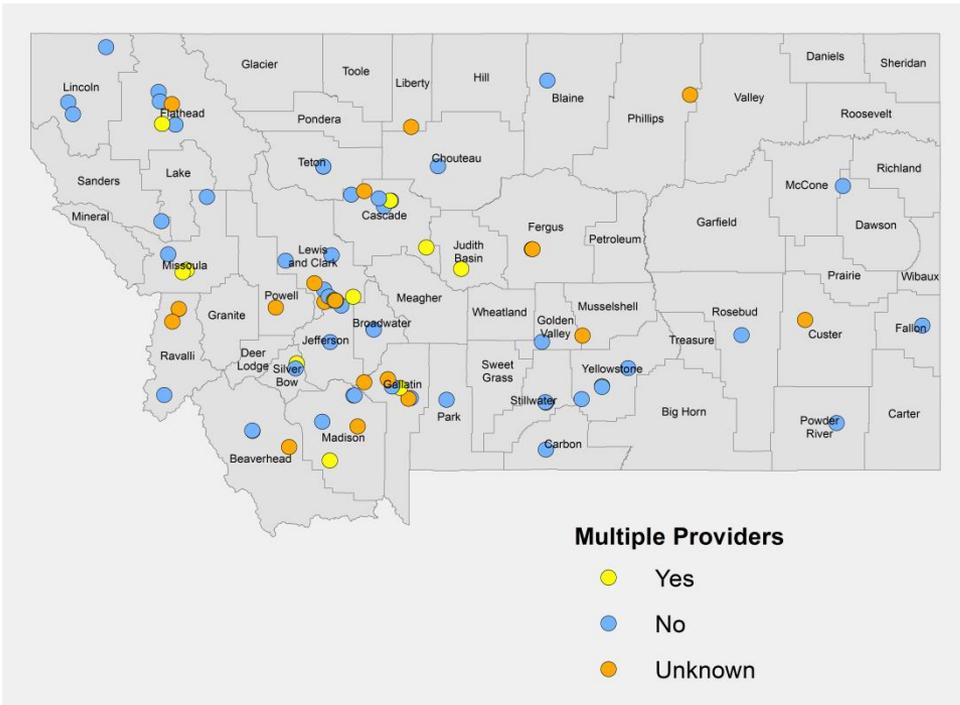
# Vehicles & Devices

Devices Issued to Vehicles			
	Vehicles	Total Voice/Data & Data Devices	Devices per Vehicle
Law Enforcement	325	183	.563
Fire	765	162	.211
Other	55	103	1.87
<b>Total</b>	<b>1,145</b>	<b>448</b>	<b>.391</b>

Devices per Vehicle

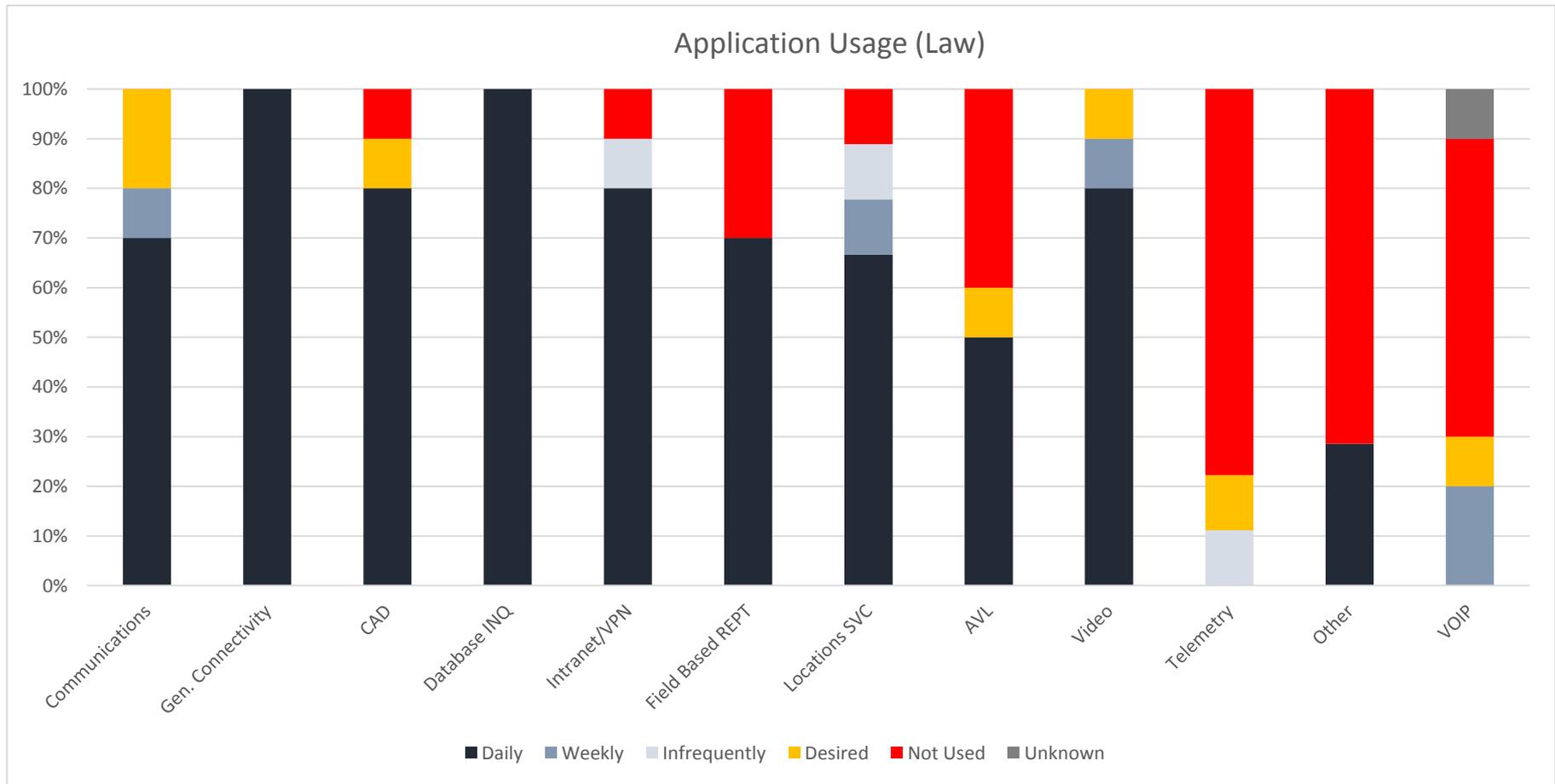


# Multiple Providers

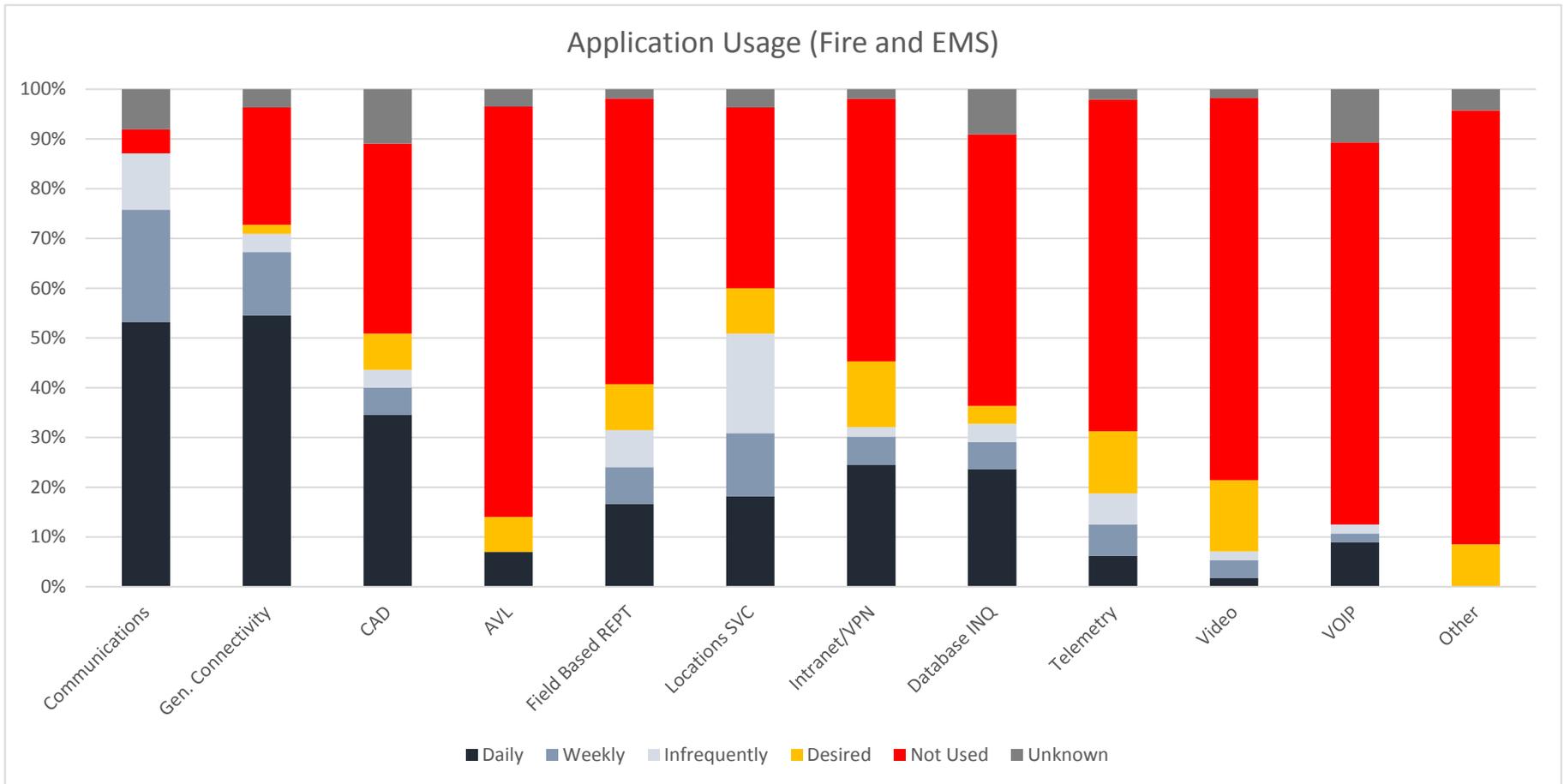


- #### Common Reasons for Multiple Providers
- Different providers for different applications
  - Coverage and reliability issues
  - Employee preferences for their devices
  - Redundancy
  - Back-up options

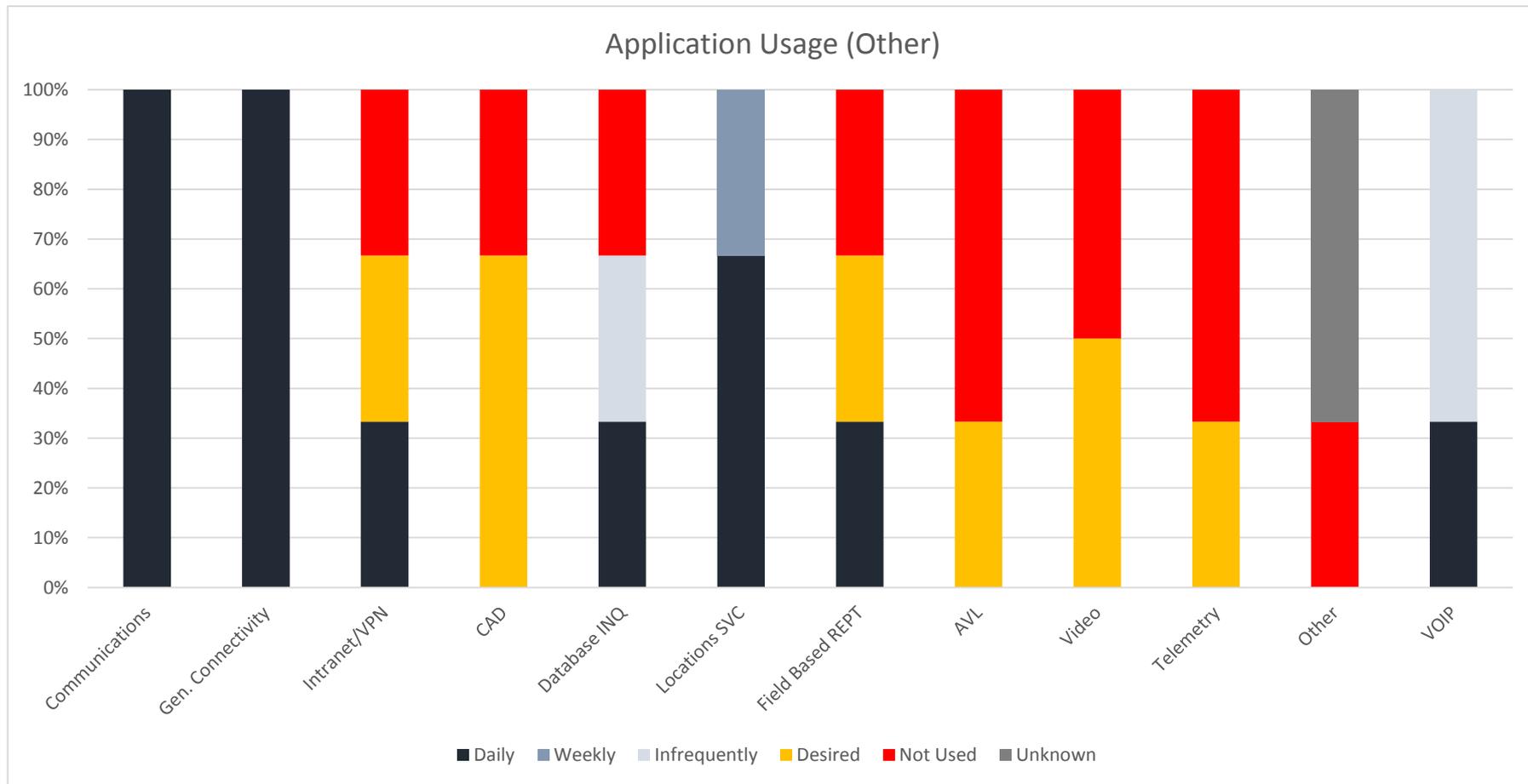
# Application Usage – Law Enforcement



# Application Usage – Fire & EMS

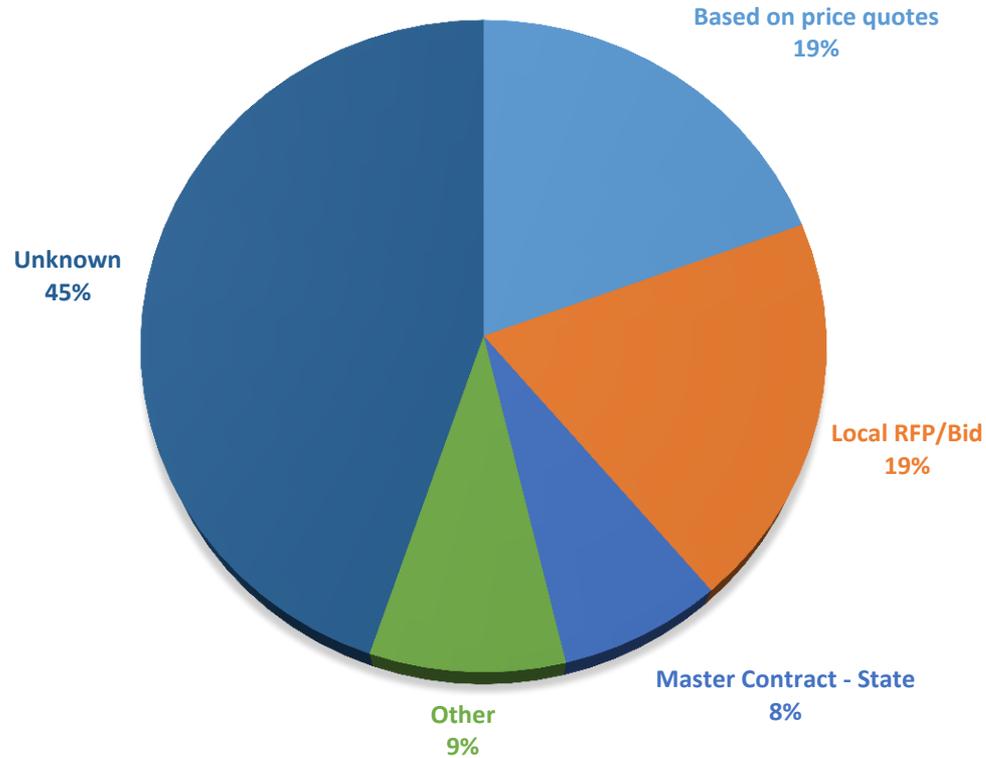


# Application Usage Other – (Non-Law Enforcement, Non-Fire & EMS)



# Acquiring Service

PROCUREMENT PROCESS

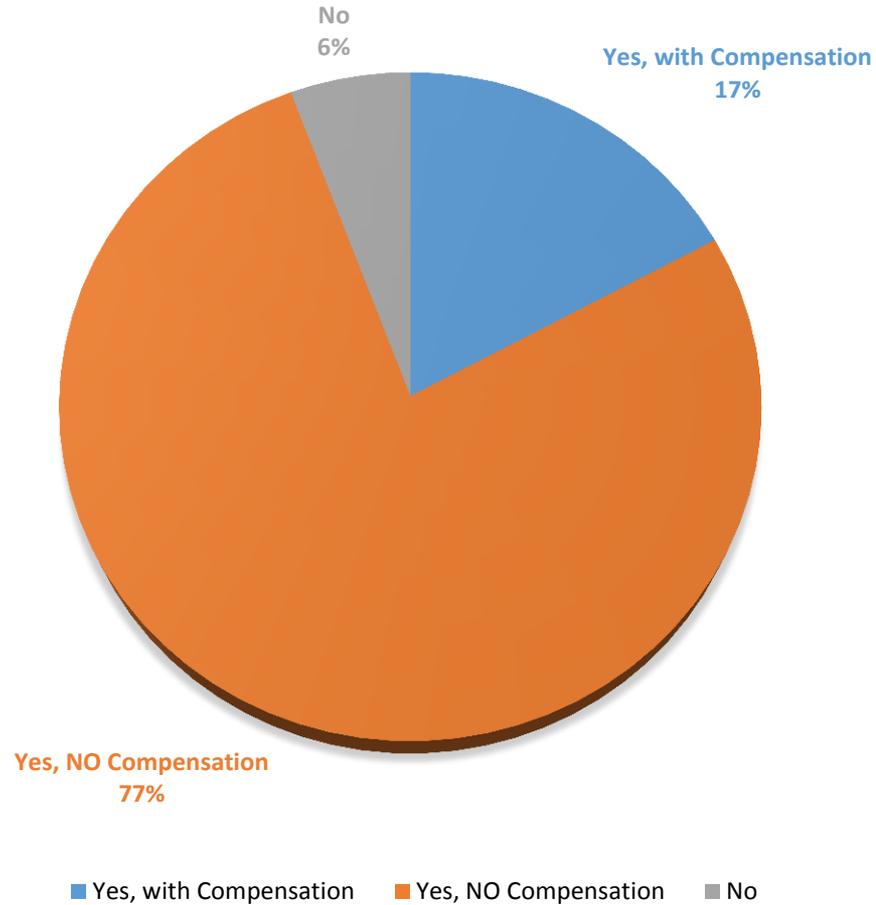


■ Based on price quotes ■ Local RFP/Bid ■ Master Contract - State ■ Other ■ Unknown

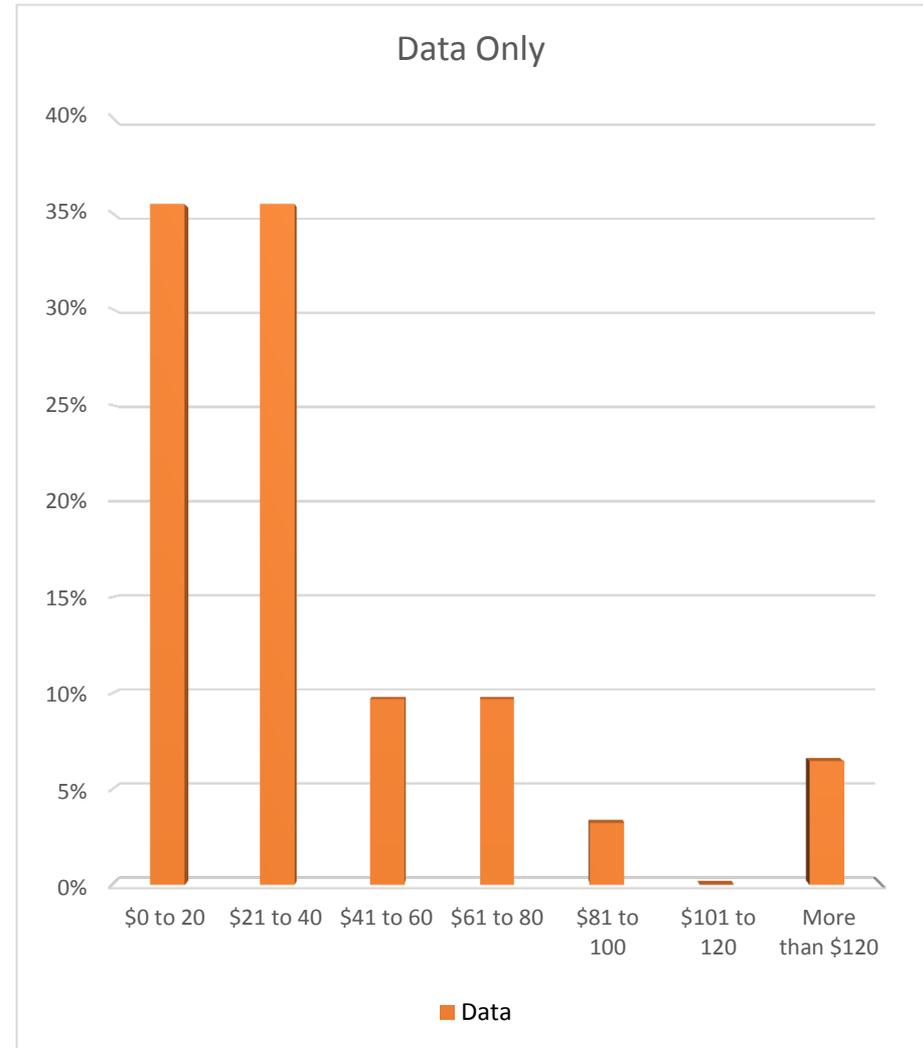
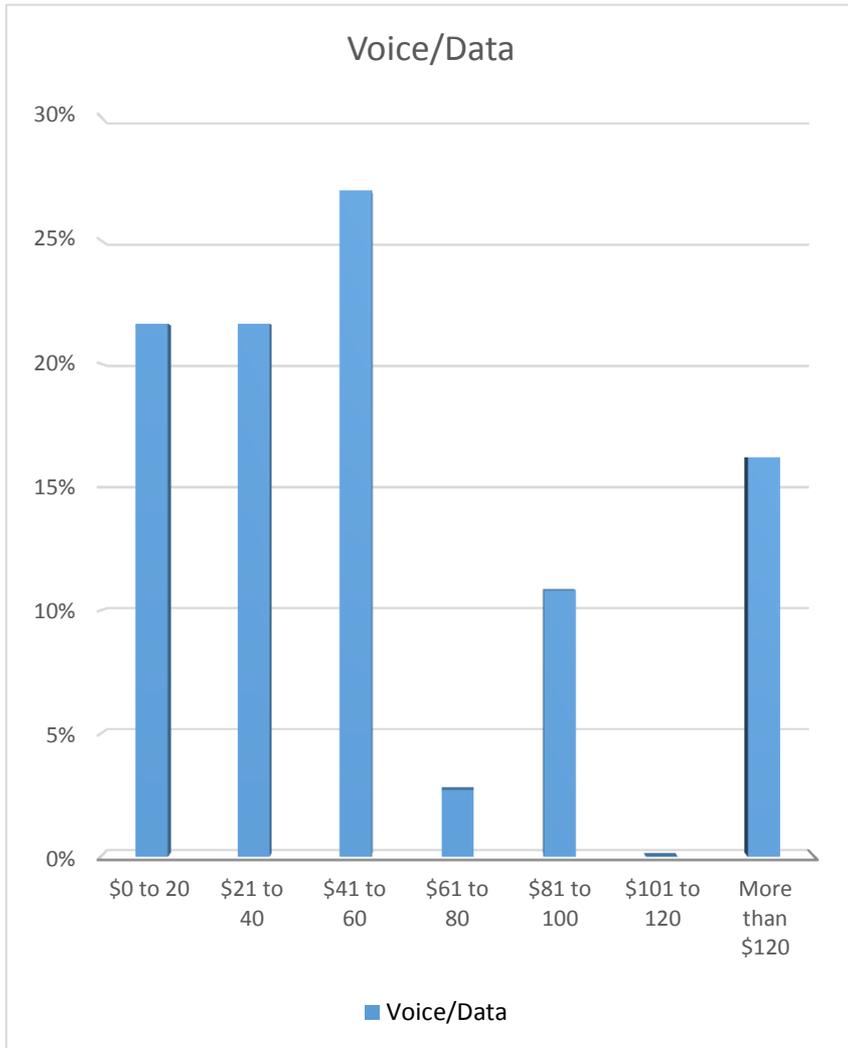
\*Services may include user devices

# Use of Devices

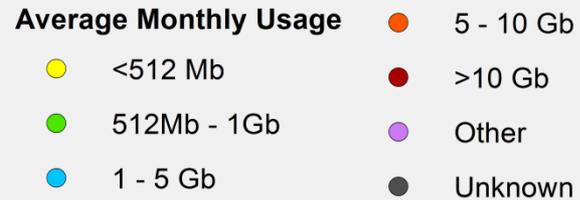
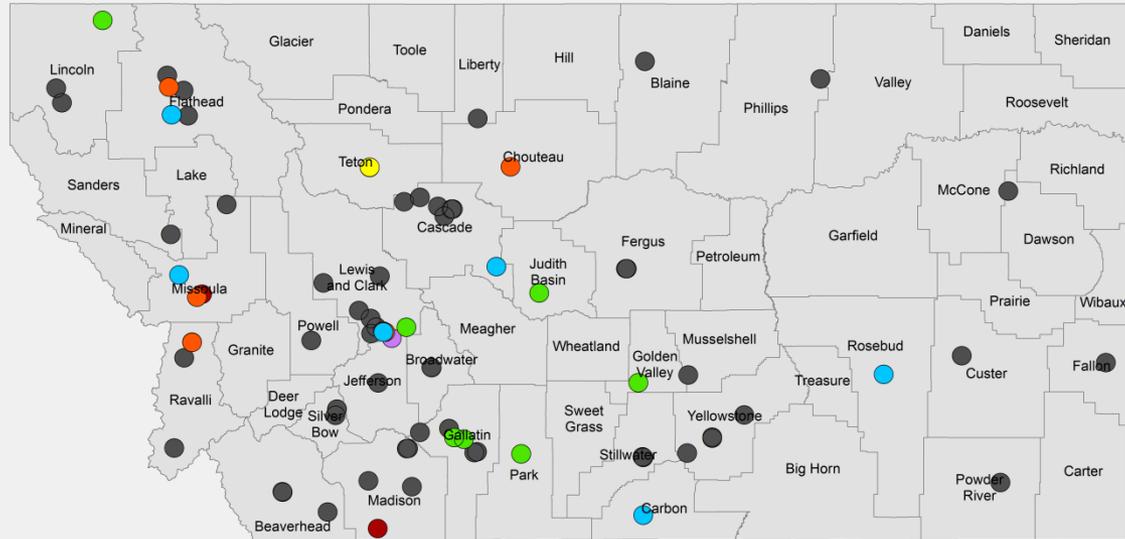
PERSONAL DEVICES PERMITTED FOR WORK?



# Average Monthly Fees

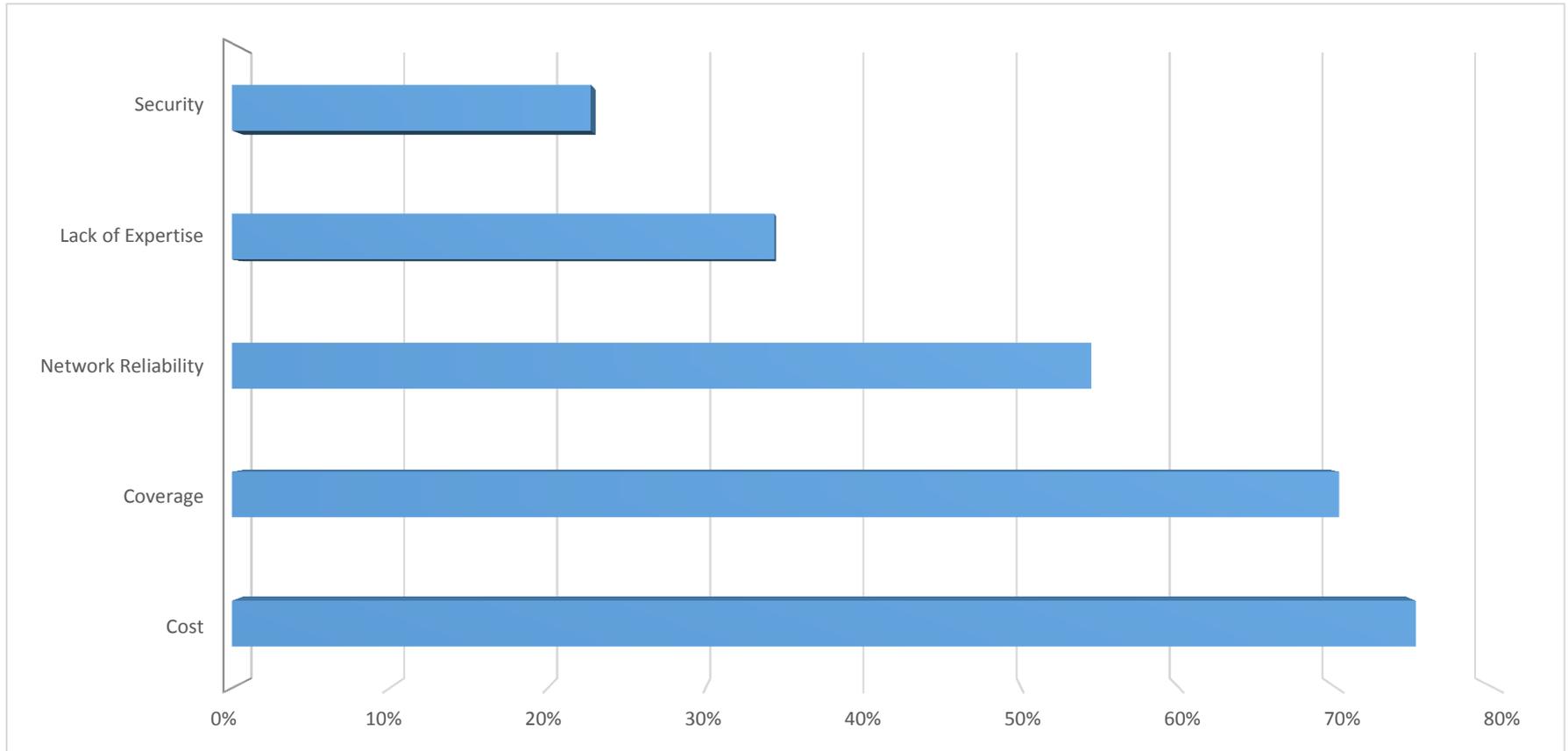


# Average Monthly Usage



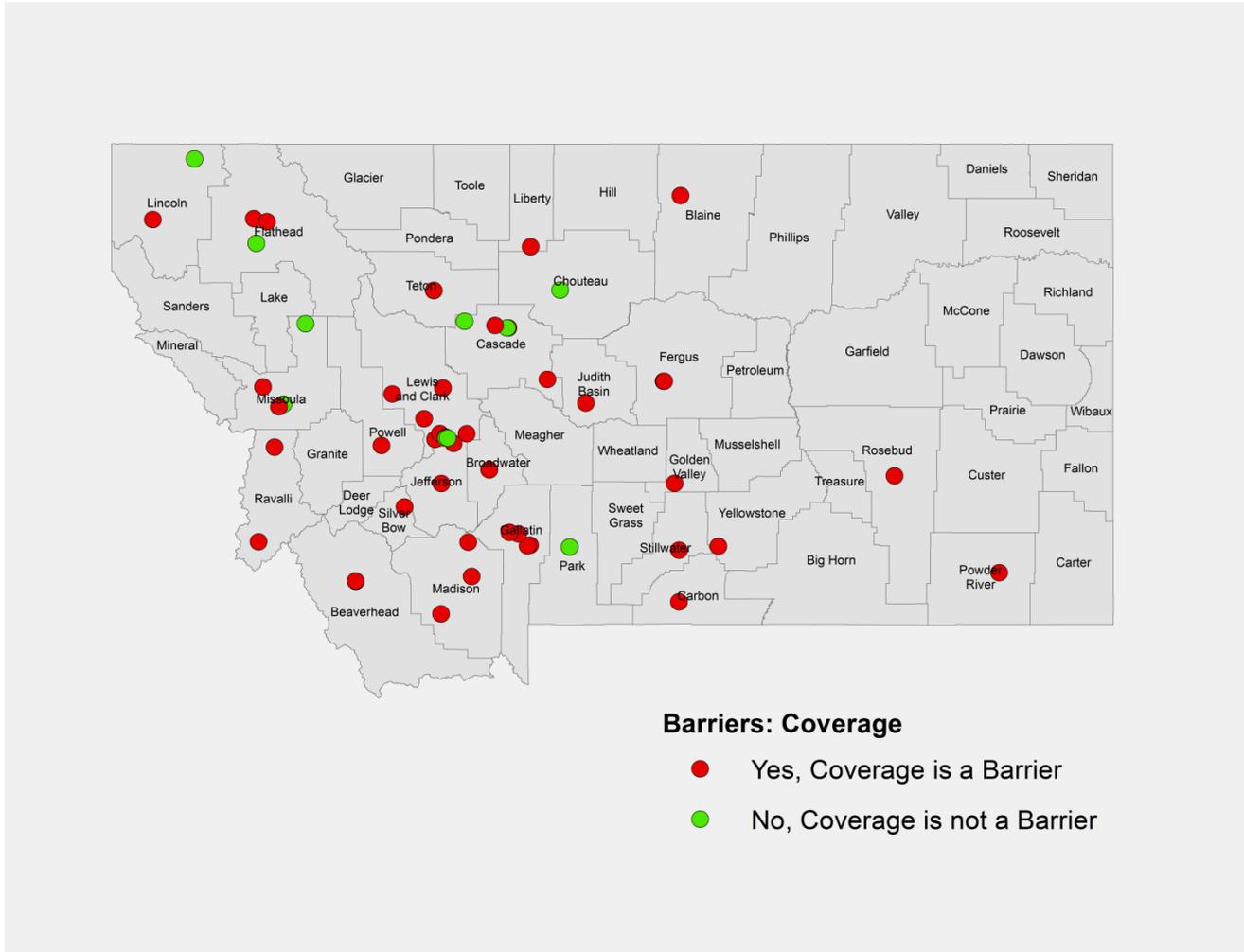
# Barriers to Entry\*

## Barriers to Implementing Wireless Data

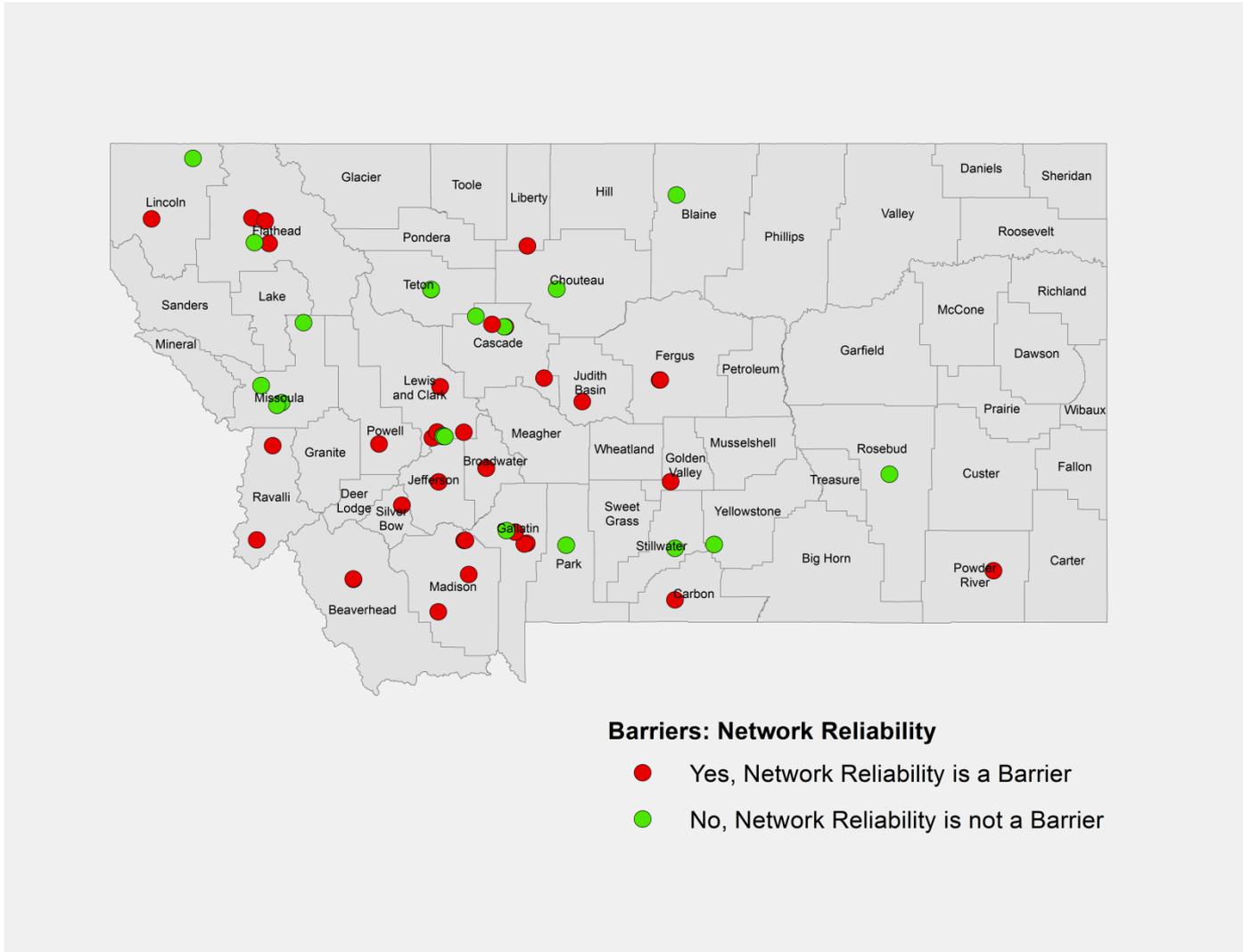


\*Barriers to entry refers to factors which agencies advise deters their using commercial data plans

# Barriers to Entry: Coverage



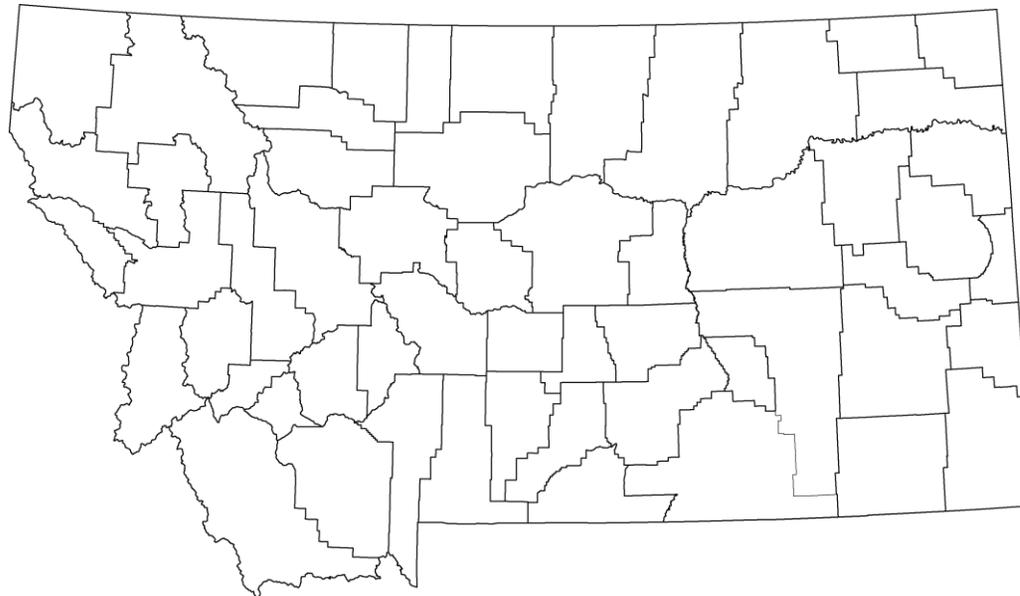
# Barriers to Entry: Reliability



# Mobile Data Survey Results: Appendix

## State of Montana

September 2015



Homeland  
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# Mobile Data Survey Tool Results

PUBLIC SAFETY ENTITY NAME	CITY	COUNTY	# Employees	Total Devices <sup>1</sup>	Devices per Personnel	# of Vehicles	Total Vehicle Devices <sup>2</sup>	Devices per Vehicle	Personal Use Devices	Monthly Fee (Voice/Data)	Monthly Fee (Data Only)	Barriers				
												Cost	Reliability	Security	Coverage	Expertise
Baker Vol. Fire Dept.	Baker	Fallon	26	2	0.08	15	2	0.13	Yes			UNK	UNK	UNK	UNK	UNK
Baxendale Rural Fire Dist	Helena	Lewis and Clark	18	0	0.00	9	0	0.00	Yes			No	Yes		Yes	Yes
Beaverhead County Sheriff's Office	Dillon	Beaverhead	23	0	0.00	9	0	0.00								
Big Mountain Rural F.D.	Whitefish	Flathead	16	0	0.00	4	0	0.00	Yes	1	1	Yes	UNK	UNK	UNK	
Billings Fire Department	Billings	Yellowstone	113	40	0.35	38	35	0.92	Yes							
Billings Police Department	Billings	Yellowstone	176	40	0.23	130	90	0.69		30	30					
Birdseye Rural Fire Dept.	Helena	Lewis and Clark	13	1	0.08	6	0	0.00	UNK			UNK	UNK	UNK	UNK	
Bozeman Fire Dept.	Bozeman	Gallatin	45	14	0.31	20	11	0.55	Yes	100	45	No	Yes	No	Yes	Yes
Bozeman Police Department	Bozeman	Gallatin	75	40	0.53	59	44	0.75	Yes	51	40	Yes	Yes	No	Yes	No
Broadus Vol. Fire Dept.	Broadus	Powder River	27	0	0.00	12	0	0.00	Yes			UNK	Yes	No	Yes	No
Broadwater Rural Fire Dept	Townsend	Broadwater	12	0	0.00	6	0	0.00	Yes			Yes	Yes	UNK	Yes	UNK
Butte Fire Department	Butte	Silver Bow	35	5	0.14	14	3	0.21	Yes			Yes	Yes	Yes	Yes	Yes

<sup>1</sup> Total Devices Consists of Voice/Data and Data Only Devices

<sup>2</sup> Total Vehicle Devices Consists of Voice/Data and Data Only Devices



# Mobile Data Survey Tool Results

PUBLIC SAFETY ENTITY NAME	CITY	COUNTY	# Employees	Total Devices <sup>3</sup>	Devices per Personnel	# of Vehicles	Total Vehicle Devices <sup>4</sup>	Devices per Vehicle	Personal Use Devices	Monthly Fee (Voice/Data)	Monthly Fee (Data Only)	Barriers				
												Cost	Reliability	Security	Coverage	Expertise
Central Valley Fire District	Belgrade	Gallatin	59	15	0.25	22	14	0.64	Yes	45	45	Yes	Yes	UNK	Yes	Yes
Chester Vol. Fire Dept.	Chester	Liberty	20	0	0.00		0	0.00	Yes	100	100	Yes	Yes	No	Yes	Yes
Chinook Fire and Rescue	Chinook	Blaine	18	0	0.00	10	3	0.30	Yes	30		Yes	No	No	Yes	Yes
Choteau Vol. Fire Dept.	Choteau	Teton	22	0	0.00	6	0	0.00	Yes			Yes	Yes	UNK	Yes	Yes
Choteau Volunteer Fire	Choteau	Teton	24	0	0.00	6	0	0.00	Yes	1	1	Yes	No	No	Yes	No
City of Whitefish Fire Department	Whitefish	Flathead	34	4	0.12	19	4	0.21	Yes			Yes	Yes	No	Yes	No
Columbia Falls Fire Dept	Columbia Falls	Flathead	28	3	0.11	10	1	0.10	No			Yes	Yes	No	Yes	Yes
Columbus Fire Dept	Columbus	Stillwater	56	2	0.04	19	7	0.37	Yes			UNK	No	No	Yes	Yes
Creston Rural Fire Dist.	Kalispell	Flathead	35	0	0.00	9	0	0.00				Yes	Yes	No		Yes
Dean Creek Volunteer Fire Department	Roundup	Musselshell	19	0	0.00	7	0	0.00				Yes				
Dixon Rural Fire Dept.	Dixon	Sanders	7	0	0.00	5	0	0.00	Yes							
Duck Creek Fire Dept.	Townsend	Broadwater	11	0	0.00	3	0	0.00	Yes			Yes	Yes	UNK	Yes	No

<sup>3</sup> Total Devices Consists of Voice/Data and Data Only Devices

<sup>4</sup> Total Vehicle Devices Consists of Voice/Data and Data Only Devices



# Mobile Data Survey Tool Results

PUBLIC SAFETY ENTITY NAME	CITY	COUNTY	# Employees	Total Devices <sup>5</sup>	Devices per Personnel	# of Vehicles	Total Vehicle Devices <sup>6</sup>	Devices per Vehicle	Personal Use Devices	Monthly Fee (Voice/Data)	Monthly Fee (Data Only)	Barriers				
												Cost	Reliability	Security	Coverage	Expertise
East Valley Fire/Rescue	Helena	Lewis and Clark	32	5	0.16	10	0	0.00	Yes	250		UNK	No	No	No	No
Eureka Rural Fire Department	Eureka	Lincoln	20	1	0.05	9	0	0.00	Yes	45	30	Yes	No	No	No	No
Fergus Sheriff's Office	Lewistown	Fergus	34	10	0.29	10	0	0.00	Yes	260		Yes	Yes	No	Yes	No
Floral Park Vol Fire Co.	Butte	Silver Bow	10	0	0.00	2	0	0.00				Yes	Yes	Yes	Yes	No
Fort Benton Police Department	Fort Benton	Chouteau	5	4	0.80	3	2	0.67		50.18	40	Yes	No	No	No	No
Fort Harrison VAFD	Fort Harrison	Lewis and Clark	12	0	0.00	5	2	0.40	Yes			Yes	Yes	Yes	Yes	No
Fort Shaw Rural VFD	Fort Shaw	Cascade	24	0	0.00	14	0	0.00	Yes	1	1	Yes	UNK	UNK	No	No
Frenchtown Rural Fire Dist	Frenchtown	Missoula	35	4	0.11	17	4	0.24	Yes	40	40	Yes	No	No	Yes	No
Gallatin River Ranch Fire Dept	Manhattan	Gallatin	12	2	0.17	6	0	0.00	Yes	1	1	Yes	No	No	Yes	No
Golden Valley County Sheriff's Office	Ryegate	Golden Valley	8	4	0.50	2	4	2.00	No			No	Yes	No	Yes	No
Gore Hill Vol. Fire Co.	Great Falls	Cascade	30	0	0.00	5	0	0.00	Yes							
Grasshopper Valley VFD	Polaris	Beaverhead	12	2	0.17	3	0	0.00	Yes			Yes	Yes	Yes	Yes	Yes

<sup>5</sup> Total Devices Consists of Voice/Data and Data Only Devices

<sup>6</sup> Total Vehicle Devices Consists of Voice/Data and Data Only Devices



# Mobile Data Survey Tool Results

PUBLIC SAFETY ENTITY NAME	CITY	COUNTY	# Employees	Total Devices <sup>7</sup>	Devices per Personnel	# of Vehicles	Total Vehicle Devices <sup>8</sup>	Devices per Vehicle	Personal Use Devices	Monthly Fee (Voice/Data)	Monthly Fee (Data Only)	Barriers				
												Cost	Reliability	Security	Coverage	Expertise
Grasshopper Valley Vol Fire Co	Polaris	Beaverhead	12	1	0.08	3	0	0.00	No			Yes	Yes	No	Yes	Yes
Great Falls Fire Rescue	Great Falls	Cascade	68	20	0.29	16	20	1.25	Yes		65	Yes	Yes	Yes	Yes	No
Great Falls Police Department	Great Falls	Cascade	185	85	0.46	45	0	0.00	Yes	60	40	Yes	No	Yes	No	No
Harrison, Pony, Norris, Summit Valley Volunteer Fire Dept.	Harrison	Madison	13	0	0.00	13	0	0.00	Yes	1	1	Yes	Yes	UNK	UNK	UNK
Harrison-Pony-Norris-Summit Valley Volunteer Fire Department	Harrison	Madison	12	0	0.00	12	0	0.00	Yes			Yes	Yes	Yes	Yes	Yes
Heath Rural Fire Dist.	Lewistown	Fergus	15	0	0.00	7	0	0.00	Yes			No	Yes	No	Yes	No
Helena Fire Department	Helena	Lewis and Clark	37	6	0.16	9	8	0.89	Yes	200	200	No	No	Yes	Yes	No
Helena Police Department	Helena	Lewis and Clark	86	26	0.30	21	34	1.62	Yes	35	40	Yes	No	Yes	No	No
Jefferson Cnty Ofc of Emer Svcs	Boulder	Jefferson	16	7	0.44	1	2	2.00	Yes	50		Yes	Yes	Yes	Yes	No
Kalispell Fire Dept.	Kalispell	Flathead	33	7	0.21	11	11	1.00	Yes			Yes	Yes	Yes	Yes	Yes
Kalispell Police Department	Kalispell	Flathead	50	12	0.24	27	9	0.33	Yes	22	38	Yes	No	No	No	No

<sup>7</sup> Total Devices Consists of Voice/Data and Data Only Devices

<sup>8</sup> Total Vehicle Devices Consists of Voice/Data and Data Only Devices



# Mobile Data Survey Tool Results

PUBLIC SAFETY ENTITY NAME	CITY	COUNTY	# Employees	Total Devices <sup>9</sup>	Devices per Personnel	# of Vehicles	Total Vehicle Devices <sup>10</sup>	Devices per Vehicle	Personal Use Devices	Monthly Fee (Voice/Data)	Monthly Fee (Data Only)	Barriers				
												Cost	Reliability	Security	Coverage	Expertise
Lincoln Rural Fire Dist.	Lincoln	Lewis and Clark	15	1	0.07	9	0	0.00	Yes			Yes	UNK	No	Yes	No
Little Basin Creek VFD	Butte	Silver Bow	13	0	0.00	4	0	0.00	Yes	1	1	UNK	UNK	UNK	UNK	UNK
Livingston Fire-Ambulance	Livingston	Park	32	4	0.13	12	8	0.67	Yes	400	60	Yes	No	No	No	No
Long Run Fire	Glasgow	Valley	100	2	0.02	25	6	0.24	Yes	500		No	Yes	No	Yes	Yes
Lincoln Rural Fire Dist.	Lincoln	Lewis and Clark	15	1	0.07	9	0	0.00	Yes			Yes	UNK	No	Yes	No
Little Basin Creek VFD	Butte	Silver Bow	13	0	0.00	4	0	0.00	Yes	1	1	UNK	UNK	UNK	UNK	UNK
Livingston Fire-Ambulance	Livingston	Park	32	4	0.13	12	8	0.67	Yes	400	60	Yes	No	No	No	No
Long Run Fire	Glasgow	Valley	100	2	0.02	25	6	0.24	Yes	500		No	Yes	No	Yes	Yes
Madison Sheriff's Office	Virginia City	Madison	24	25	1.04	15	0	0.00	Yes	50		Yes	Yes	Yes	Yes	No
Madison Valley Rural Fd	Ennis	Madison	33	0	0.00	20	0	0.00	Yes			Yes	Yes	UNK	Yes	No
Manchester Volunteer Fire Department	Great Falls	Cascade	7	0	0.00	3	0	0.00	Yes			Yes	Yes	UNK	Yes	Yes
Manhattan Rural Fire Dist	Manhattan	Gallatin	17	0	0.00	9	0	0.00	Yes							
Marysville Rural Fire District	Marysville	Lewis and Clark	8	0	0.00	5	0	0.00	Yes			Yes	UNK	UNK	Yes	No
Miles City Fire Dept & Amb Svc	Miles City	Custer	25	0	0.00	16	1	0.06								
Missoula Fire Dept Sta #1 Hdqtrs	Missoula	Missoula	95	30	0.32	31	0	0.00	Yes	65	65	No	No	No	No	Yes

<sup>9</sup> Total Devices Consists of Voice/Data and Data Only Devices

<sup>10</sup> Total Vehicle Devices Consists of Voice/Data and Data Only Devices



# Mobile Data Survey Tool Results

PUBLIC SAFETY ENTITY NAME	CITY	COUNTY	# Employees	Total Devices <sup>11</sup>	Devices per Personnel	# of Vehicles	Total Vehicle Devices <sup>12</sup>	Devices per Vehicle	Personal Use Devices	Monthly Fee (Voice/Data)	Monthly Fee (Data Only)	Barriers				
												Cost	Reliability	Security	Coverage	Expertise
Missoula Rural Fire Dist.	Missoula	Missoula	84	7	0.08	25	5	0.20	Yes	100	10	Yes	No	No	Yes	No
Monarch Vol. Fire Co.	Monarch	Cascade	22	2	0.09	5	0	0.00	Yes	60	75	Yes	Yes	Yes	Yes	Yes
Montana City VFD	Clancy	Jefferson	28	0	0.00	7	0	0.00	Yes	1	1	Yes	UNK	No	Yes	No
Montana Dept of Justice	Helena	Lewis and Clark	100	100	1.00	50	100	2.00	Yes	50	30	Yes	No	No	No	No
Painted Rocks Fire Dist	Darby	Ravalli	14	0	0.00	8	0	0.00	Yes	1	1	Yes	Yes	No	Yes	Yes
Park Cnty Disaster & Emer Svcs	Livingston	Park	2	6	3.00	2	0	0.00	Yes	30	20	Yes	No	No	No	Yes
Powell County Fire Warden	Garrison	Powell	0	0	0.00!		0	0.00	Yes				Yes		Yes	
Red Lodge Rural Fire Dist	Red Lodge	Carbon	120	18	0.15	26	6	0.23	Yes	40	20	Yes	Yes	UNK	Yes	No
Richey Vol. Fire Dept.	Richey	Dawson	18	0	0.00	5	0	0.00	Yes							
Rosebud County Fire Dept.	Forsyth	Rosebud	60	0	0.00	34	0	0.00	Yes	40	40	No	No	No	Yes	No
Saco Vol Fire Dept	Saco	Phillips	14	0	0.00	3	0	0.00	UNK			UNK	UNK	UNK	UNK	UNK
Sheridan Vol. Fire Dept.	Sheridan	Madison	14	1	0.07	6	0	0.00	Yes							
Stevensville Police Department	Stevensville	Ravalli	11	3	0.27	4	0	0.00	No	60		Yes	Yes	No	Yes	No

<sup>11</sup> Total Devices Consists of Voice/Data and Data Only Devices

<sup>12</sup> Total Vehicle Devices Consists of Voice/Data and Data Only Devices



# Mobile Data Survey Tool Results

PUBLIC SAFETY ENTITY NAME	CITY	COUNTY	# Employees	Total Devices <sup>13</sup>	Devices per Personnel	# of Vehicles	Total Vehicle Devices <sup>14</sup>	Devices per Vehicle	Personal Use Devices	Monthly Fee (Voice/Data)	Monthly Fee (Data Only)	Barriers				
												Cost	Reliability	Security	Coverage	Expertise
Stevensville VFD	Stevensville	Ravalli	48	0	0.00	15	0	0.00								
Stillwater Cnty	Columbus	Stillwater	7	5	0.71	2	1	0.50	Yes							
Sun Prairie Vol Fire Dept	Vaughn	Cascade	0	0	0.00		0	0.00	Yes			Yes	No	UNK	UNK	
Swan Valley Emergency Services	Condon	Missoula	20	1	0.05	6	0	0.00	Yes	1	1	No	No	No	No	No
Tri-Lakes Volunteer Fire Dept	East Helena	Lewis and Clark	33	2	0.06	14	0	0.00	Yes	93.98	30	Yes	Yes	No	Yes	No
Victor Rural Fire Dist.	Victor	Ravalli	41	0	0.00	10	0	0.00								
West Helena Valley VFD	Helena	Lewis and Clark	38	2	0.05	12	5	0.42	Yes							
Willow Creek Rural Fd	Willow Creek	Gallatin	17	0	0.00	9	0	0.00								
Wolf Creek Vol Fire Co	Wolf Creek	Lewis and Clark	8	0	0.00	6	0	0.00	Yes			Yes	Yes	Yes	Yes	Yes
WORDEN FIRE DEPT	Worden	Yellowstone	40	3	0.08	14	0	0.00	Yes							

<sup>13</sup> Total Devices Consists of Voice/Data and Data Only Devices

<sup>14</sup> Total Vehicle Devices Consists of Voice/Data and Data Only Devices