From: Dan Walker
To: Elizabeth Roos
Subject: FW: Formal Request to Increase Resort Tax Payments
Date: Thursday, August 8, 2024 9:51:26 AM

For the packet with the request.

From: Jeff McBirnie <jmcbirnie@townofwestyellowstone.com>
Sent: Monday, August 5, 2024 6:06 PM
To: sgrube@hbrfd.com
Cc: Dan Walker <dwalker@townofwestyellowstone.com>; Lisa Griffith <lgriffith@townofwestyellowstone.com>; Mike <mikegavagan@gmail.com>; Kyle Goltz <kgoltz@hbrfd.com>
Subject: Re: Formal Request to Increase Resort Tax Payments

Shane,

Can I get a copy of your current financials/ budgets for the last 5 years please including this upcoming budget year. Please include all funds received and where they come from (Park contract, tax levy, mill levy, etc…) contingency funds if any (how you allocate money to them, and how much per year), Set aside funds for CIP projects (how much per year set aside).

I would like to see in writing, how this increase will benefit the community, basically "what we are getting, for what we are paying". I want to see in writing what/where this money would be directed and how it would be used and what specific purposes please do not be vague in nature.

Are you also planning on taking to the voters any new imposed taxes in the next 5 years? If so…please state how that money will be intended to be used?

Thanks,
Jeff

Sent from my iPad

> On Aug 5, 2024, at 4:16 PM, Shane Grube <sgrube@hbrfd.com> wrote:
>
> Mr. Walker,
>
> It came to my attention today that my request at the end of our meeting to change the current payments of resort tax to Hebgen Basin Fire District was viewed as an informal request.
>
> Please consider this email as my formal request to change the current payment structure.

I am asking for $100,000 additional contribution to be added to what we currently are getting from the town and in the future, I would like to move from the current 1 ½ percent increase every year to 4 percent increase every year.

This would put the town's RT contribution at approximately $770,000. If you would like to discuss this further, please provide me with some dates and times.

Thank You
Shane

Hebgen Basin Fire District
P.O. Box 1508 • West Yellowstone, Montana 59758 • Phone: (406) 646-9094 • Fax: (406) 646-9090

August 15, 2024

Mayor Travis Watt and Council Members
440 Yellowstone Avenue
West Yellowstone, MT 59758

RE: Request For Resort Tax Funding Increase.

Mr. Mayor, Council Members, and Town Manager Dan Walker, I would like to formally request an additional $100,000 dollar increase and a change from the current 1 1/2 % annual increase to a 4% annual increase in funding.

Background

In 2007, the Town Council and the Hebgen Basin Rural Fire District started discussions at the town's request looking at possible ways we could annex the Town of West Yellowstone into the Hebgen Basin Rural Fire District. The purpose of the Interlocal Agreement was to make the most efficient use of available resources such as personnel, equipment, real property, operation and administrative functions, and facilities to meet current and future needs of the participating agencies and the community. At that time the cost to the Town for Fire and EMS running their own department was approximately $750,000 which was approximately 37% of what the town collected in resort tax.

In May of 2008, the Town of West Yellowstone and the Hebgen Basin Rural Fire District signed their first Interlocal Agreement at that time the district would receive $450,000 in Resort Tax funding to help offset the cost of tourism-based impacts on the Fire District. This was 22% of the total resort tax collected.

In November of 2010, the Town and Fire District signed a modification of the interlocal agreement which changed the funding structure. In the following Fiscal Years ending 2011-2014, Resort tax contribution was the following of all resort taxes collected.

FY ending 2011	17.9%
FY ending 2012	18.7%
FY ending 2013	18.1%
FY ending 2014	17.7%

Comparatively in 2010 – 2024, the difference in District Property tax revenue received and Town's Resort tax paid to the District was:

	District Tax Revenue	Town Resort Tax Contribution	percentage of difference
2010	$462,493.20	$450,000.00	51/49
2011	$475,298.70	$476,100.00	50/50
2012	$488,987.00	$498,720.00	50/50

2013	$428,675.50	$517,716.00	55/45
2014	$562,374.00	$546,760.00	51/49
2015	$574,698.00	$530,175.00	52/48
2016	$610,063.00	$537,950.00	52/48
2017	$661,329.00	$634,019.00	53/47
2018	$687,660.00	$642,209.00	51/49
2019	$714,592.00	$650,520.00	52/48
2020	$748,690.00	$650,522.00	54/46
2021	$802,180.00	$650,522.00	55/44
2022	$773,842.00	$660,279.00	54/46
2023	$819,442.00	$660,279.00	55/45
2024	$844,543.00	$670,184.03	56/44

Based on the comparison you can see that the property tax revenue supporting the district is far outpacing resort tax revenue supplied by the town.

In November 2015, the Town of West Yellowstone and Hebgen Basin Rural Fire District signed another amended interlocal agreement and changed the funding structure and the Fire District purchased the building.

In May of 2019, a Memorandum of Understanding and Agreement was signed consolidating the payments for both the interlocal agreement and the cost for an additional employee.

The percentage of Resort Tax contributions continues to go down as seen below.

FY ending 2021	11.4%
FY ending 2022	13.1%
FY ending 2023	11.8%

Since 2021, the Fire District's call volume has increased by 26% and has stayed at these increased levels for 2021, 2022, 2023, and 2024, with July 2024 setting a record of 117 calls for the month. It is also the first time we broke over 100 calls in one month. Our biggest increase in call volume is due to EMS. The biggest stress to the district is the number of calls we are having at the same time; these have increased from 11% in 2022 to 18% of the time in 2023. In 2018 the location of calls was 75% in town. This number does not fluctuate much, only a percentage point or two until 2023, the location of calls was 78% in town. The patient demographics of our calls has remained 75% tourist and 25% locals. The tourist needs remain the biggest impact for the fire district.

When the Town had its own fire department, it had 7 year-round employees along with approximately 10 volunteers. The Fire District currently has 12 year-round employees and 3 seasonal employees along with approximately 4 active volunteers. We also are paying these volunteers to help cover open shifts and additional coverage when needed.

The District is currently leading the charge to create the Hebgen Basin Rural Resort Tax Area District. The purpose for the district is to create an additional funding mechanism to support Fire, EMS, Medical needs within the community. Additional Revenue generated from the Rural Resort Tax Area District can go to Educational and Community Impacted Needs. There are a number of hurdles to get over to establish this goal and the rural resort tax probably will not have any financial impact for the district for at least 2 years, if we are successful.

1. We need 15% of the registered voters in the rural area to sign the petition to get it in the May Special District Election.
2. We need the Gallatin County Commissioners vote to put it on the May Special District Election ballet.
3. We need to have a majority of voters approve the Rural Resort Area Tax and District.

The second hurdle is, the Montana Department of Commerce needs to complete a Qualified Designation study, and that study needs to come out in our favor.

To meet the Qualified Designation Study Requirements, we need the following:

1. The area for Rural Resort Area Tax Designation needs to be unincorporated. "IT IS"
2. The population of that area has to be under 2500 people. "It IS"
3. 50% of the economic engine in that area needs to be from Tourism. "Reason for the study"

This Rural Resort Area Tax District is a separate special district which will be governed by a board of elected officials from the rural area, not associated with the Fire District. If we are successful in establishing the Rural Resort Area Tax District, The Board of the Hebgen Basin Rural Fire District and the Board for the Hebgen Basin Rural Resort Area Tax District will have to come up with an interlocal agreement to receive a portion of the funds collected. It is with this additional funding that I have high hopes of being able to hire additional staffing for the Fire District. The best guess I have in the amount of Resort Tax which could be collected annually by the Rural Resort Area Tax District is around $450,000 to $500,000.

If the council chooses to approve my request the District is willing to take on the responsibility for snow removal around fire hydrants throughout town.

The additional funding I have requested we be used as follows:

1. Increase our overtime budget. $12,000
2. Pay volunteers to attend training. $4,500
3. Create a capital improvement plan for updating our snow removal equipment that we use for the clearing of fire hydrants. $15,000
4. Hire additional seasonal staff for summer and periods of high call volume in winter. $55,000
5. Increase training for Staff and Volunteers. $4,500
6. New Turnouts for seasonal staff. $9,000

The current funding mechanism outlined is not keeping pace with inflation, changes in call volume, societal changes in volunteerism. The other significate change that has been created is the lack of growth in town. For example, last year the District had $299,000 in new taxable property within the District, $108,000 of that in the town limits. This year there was $107,000 of new taxable property added to the district, and only $22,000 was from within Town limits. The new $107,000 in taxable property generates $3879.00 in additional revenue. For approximately the last eight years the town has either been in a water or sewer moratorium which means no new construction in town and very little growth in taxable value. New construction drives new tax revenue.

I did a comparison of what the town was spending in their 2007-2008 budget compared to what the town is spending in their 2023-2024 budget. The following increase was found in the following categories.

Law Enforcement Services	87% increase
Dispatch	126% increase
Building Inspections	42% increase
Road and Street	193% increase

Parks	201% increase
Hebgen Basin Fire District	48% increase

If the town was still running their own Fire and EMS department and applied the Law Enforcement Budget increase to what you were paying for Fire and EMS, the town would be paying $1,402,500.00 for their own Fire and EMS. The Town is paying the District $670,000 currently.

The District has big capital expenses coming in the next 1-3 years that we are saving for which are as follows.

Used ladder truck.	$750,000 -$850,000
New Turnouts	$ 75,000
Ambulance	$300,000
SCBA's	$200,000

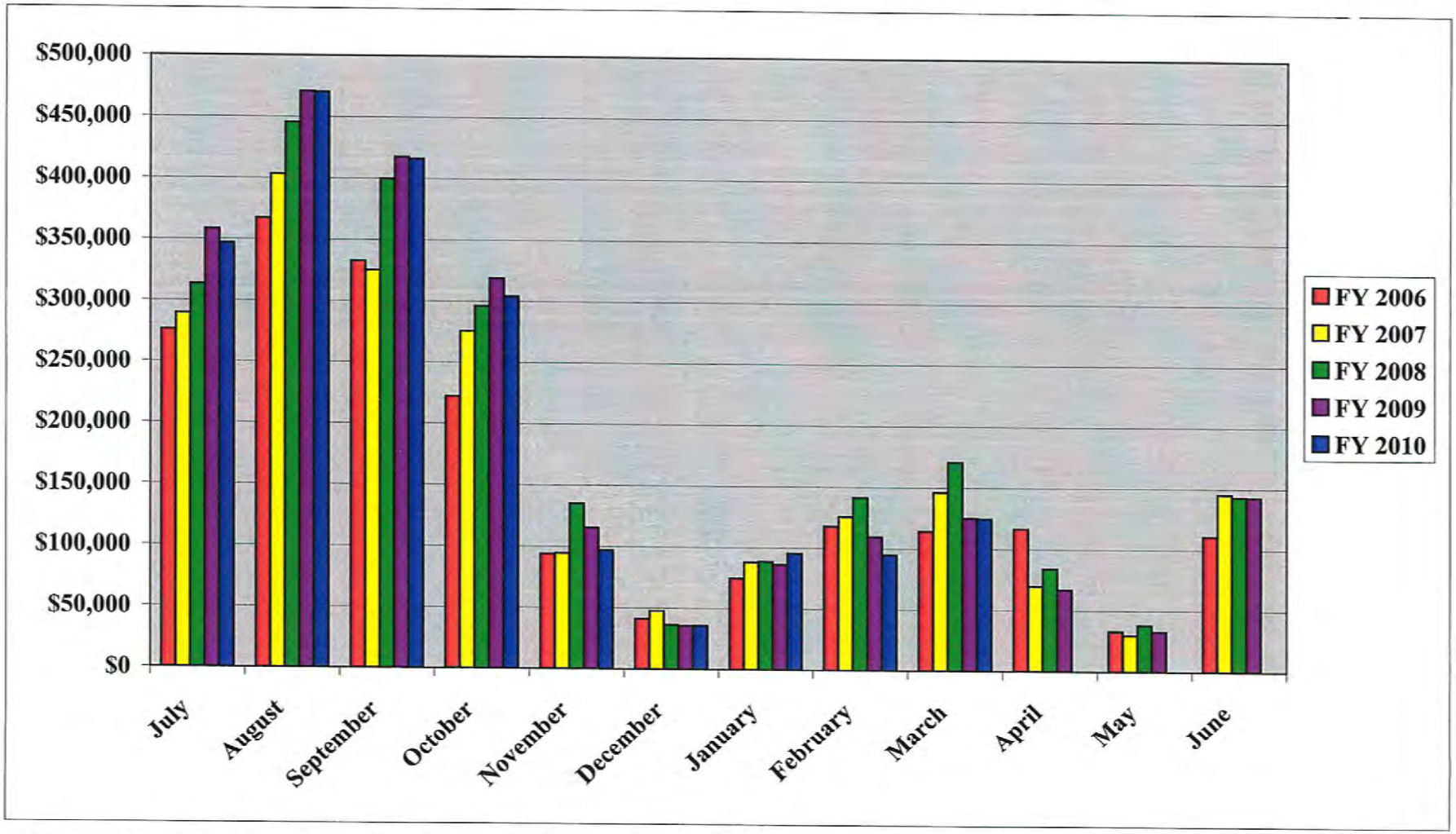
The District operates on a cash basis, we save money and plan for these big purchases and only purchase when we have the money to do so.

The partnership that has been created between the Town of West Yellowstone and the Hebgen Basin Fire District has been good for both parties and best for the community. It has increased Fire and EMS capacity in this basin and saved both the Town and Taxpayers money. It is for these reasons I ask that the council approve my request.

Thank You
Chief Grube

Resort Tax Collections for the Town of West Yellowstone
Fiscal Years 2006-2010, Collections by Month

	July	August	September	October	November	December	January	February	March	April	May	June	Total	% Increase over prev yr
FY 2006	$275,931	$367,250	$332,800	$222,073	$93,559	$40,972	$74,646	$117,842	$114,091	$116,686	$33,038	$110,773	$1,899,661	6.36%
FY 2007	$289,354	$403,234	$325,018	$275,600	$94,235	$47,742	$87,865	$125,668	$145,985	$69,818	$29,768	$145,334	$2,039,621	7.37%
FY 2008	$313,243	$445,508	$399,715	$296,151	$134,809	$36,088	$88,192	$141,305	$170,659	$84,122	$38,051	$143,198	$2,291,041	12.33%
FY 2009	$358,396	$470,608	$417,562	$318,878	$115,285	$35,482	$86,064	$109,445	$125,133	$66,802	$32,871	$142,763	$2,279,289	-0.52%
FY 2010	$346,707	$469,913	$416,256	$304,192	$97,105	$35,751	$95,403	$94,731	$124,675					-2.63%



Figures represent resort tax revenue that was typically generated in the previous month.
Effective June 2007, the Town is collecting an additional 2.5% of the tax for the Marketing and Promotions Fund.

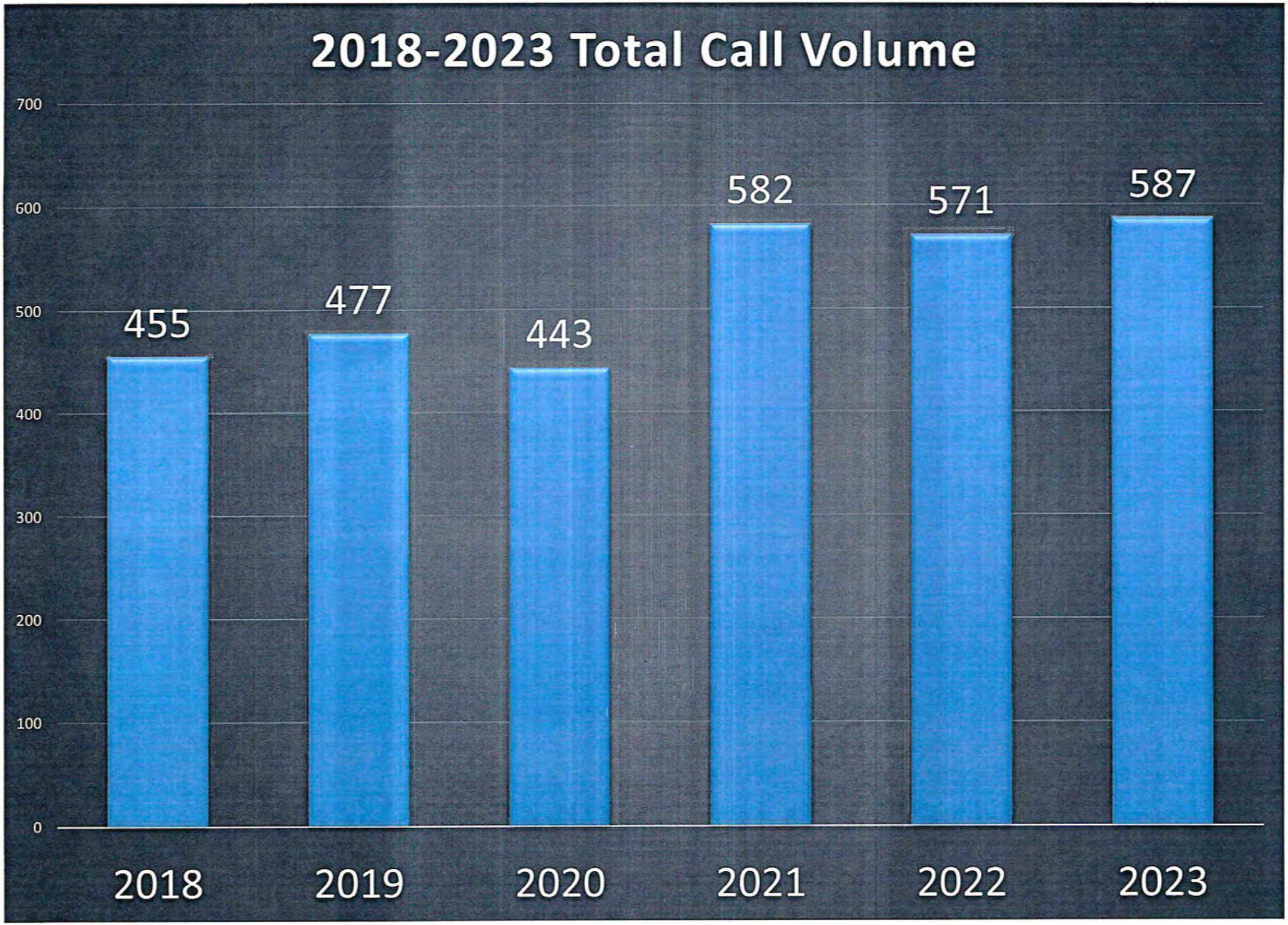
3% Resort Tax Collections for the Town of West Yellowstone
Fiscal Years 2021-2025, Collections by Month

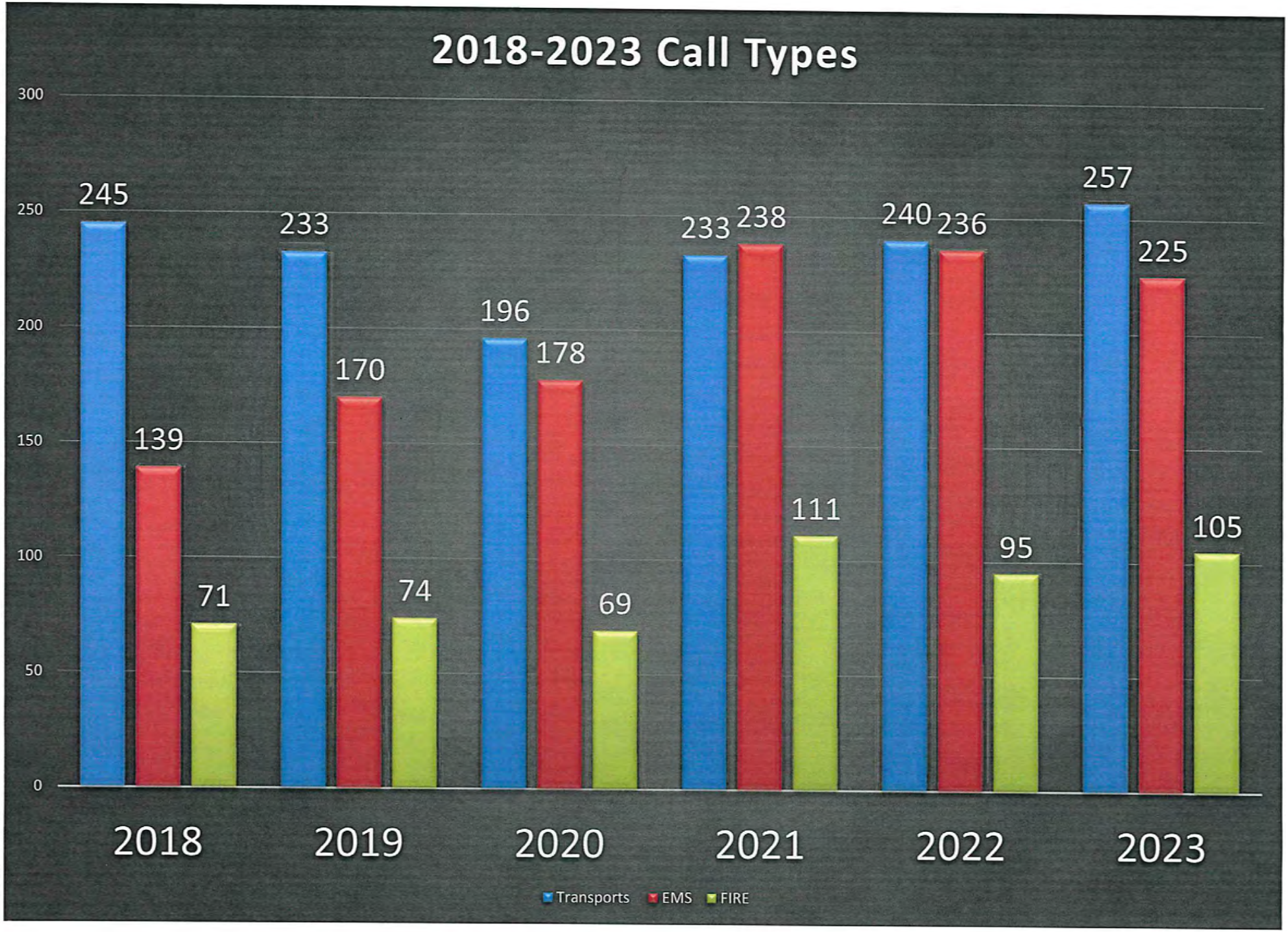
	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total	Change *
FY 20-21	$358,935	$791,895	$673,327	$638,135	$336,934	$46,707	$199,319	$239,691	$245,766	$103,247	$119,057	$492,023	$4,245,036	%
FY 21-22	$1,043,125	$1,063,103	$954,067	$827,832	$320,268	$65,023	$169,146	$265,235	$305,013	$119,491	$96,237	$513,052	$5,741,592	35.25 %
FY 22-23	$759,805	$847,219	$796,914	$744,943	$258,210	$104,684	$183,369	$273,005	$313,041	$97,832	$134,659	$501,191	$5,014,872	-12.66 %
FY 23-24	$904,925	$1,057,208	$945,321	$860,828	$356,913	$77,081	$100,964	$265,786	$278,348	$146,464	$117,174	$472,327	$5,583,339	11.34 %
FY 24-25	$995,548												$995,548	10.01 %

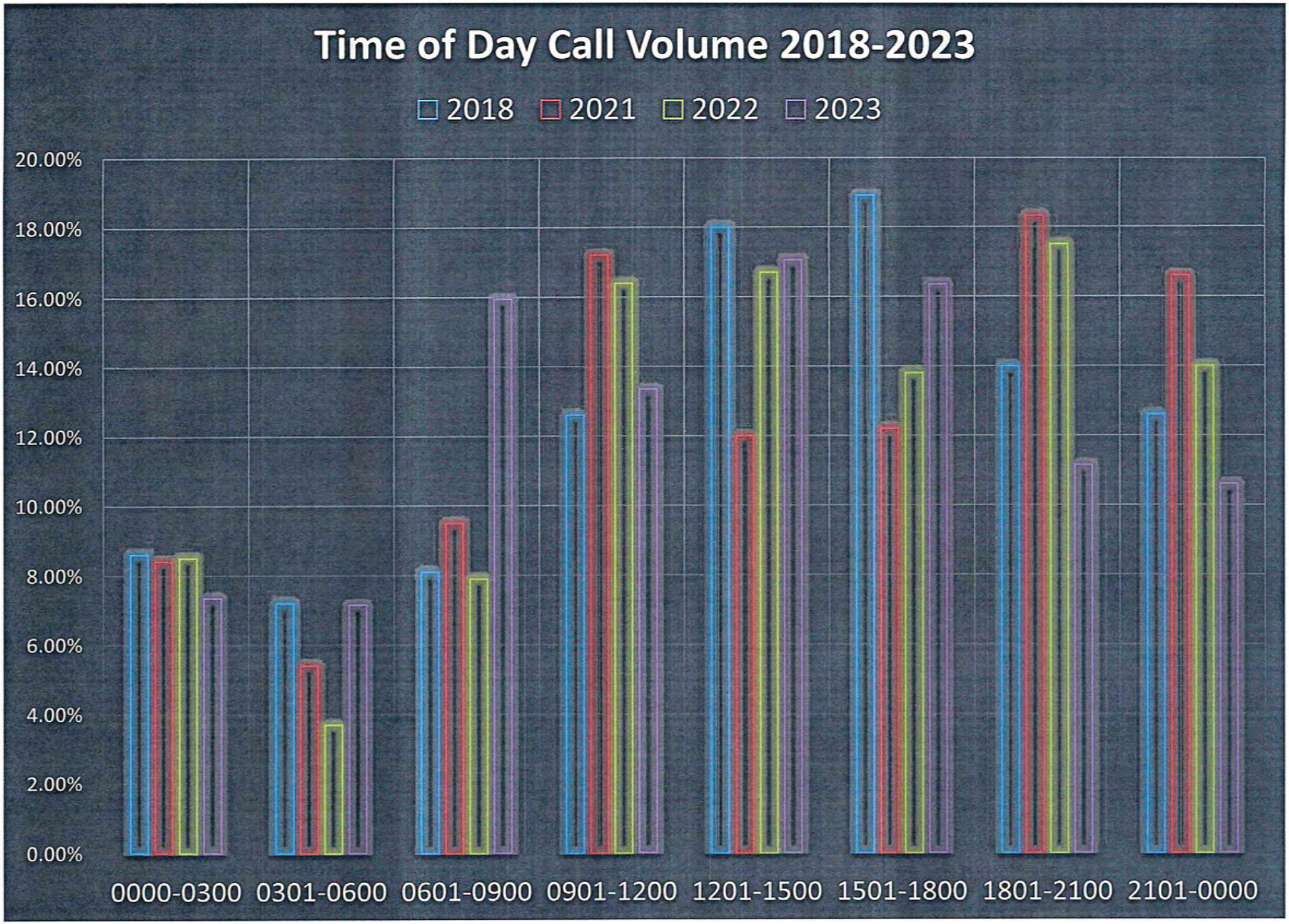
Figures represent resort tax revenue in the month it was collected by the Town, but was typically generated in the previous month. It may also include penalties and late payments. Effective June 2007, the Town is collecting an additional 2.5% of the tax for the Marketing and Promotions Fund.

*** FY Change %** represents the increase or decrease in collections as compared to the same time period of the previous fiscal year

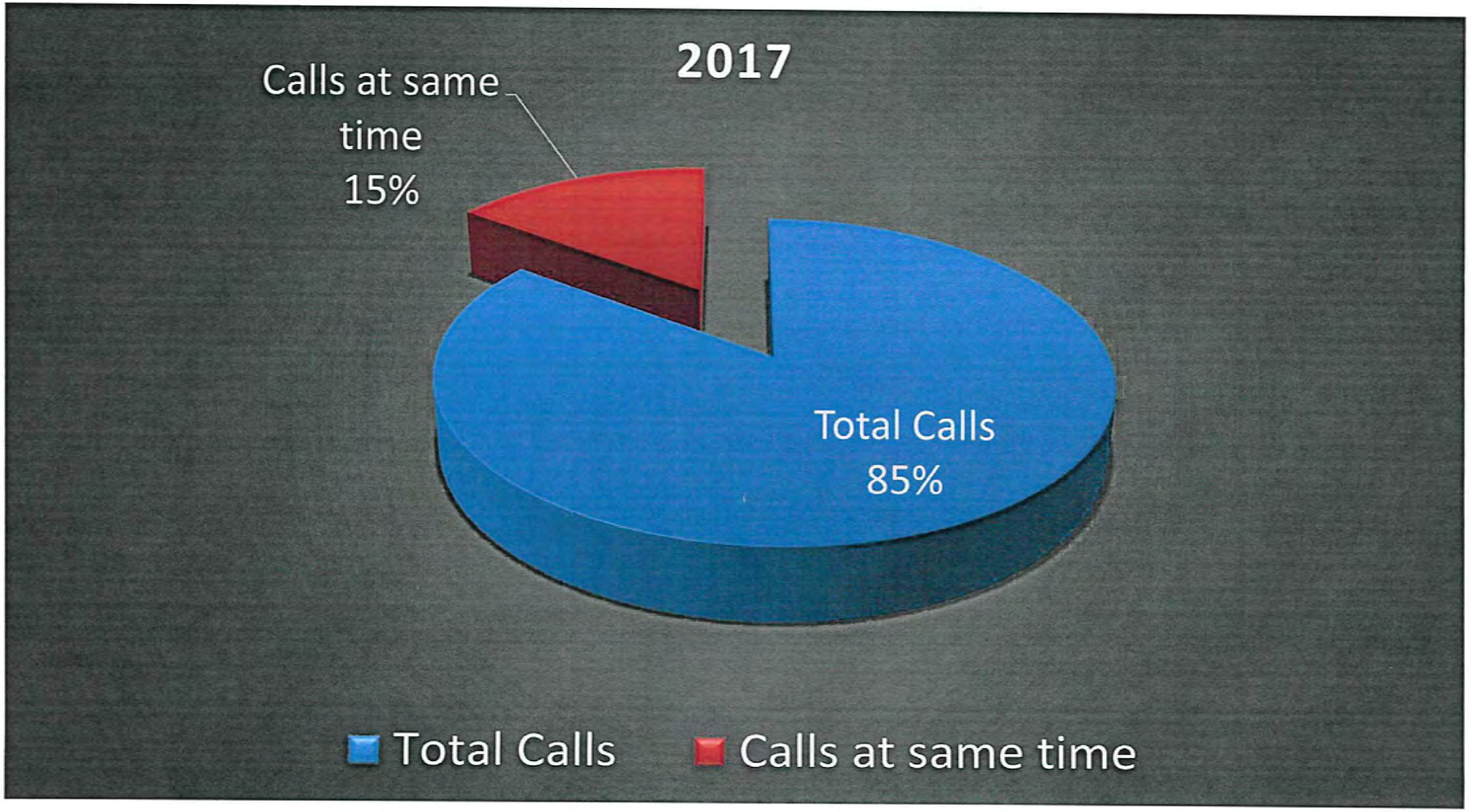
Hebgen Basin Fire District


2018-2023 Total Call Volume
700
600
500
400
300
200
100
0
455
477
443
582
571
587
2018
2019
2020
2021
2022
2023

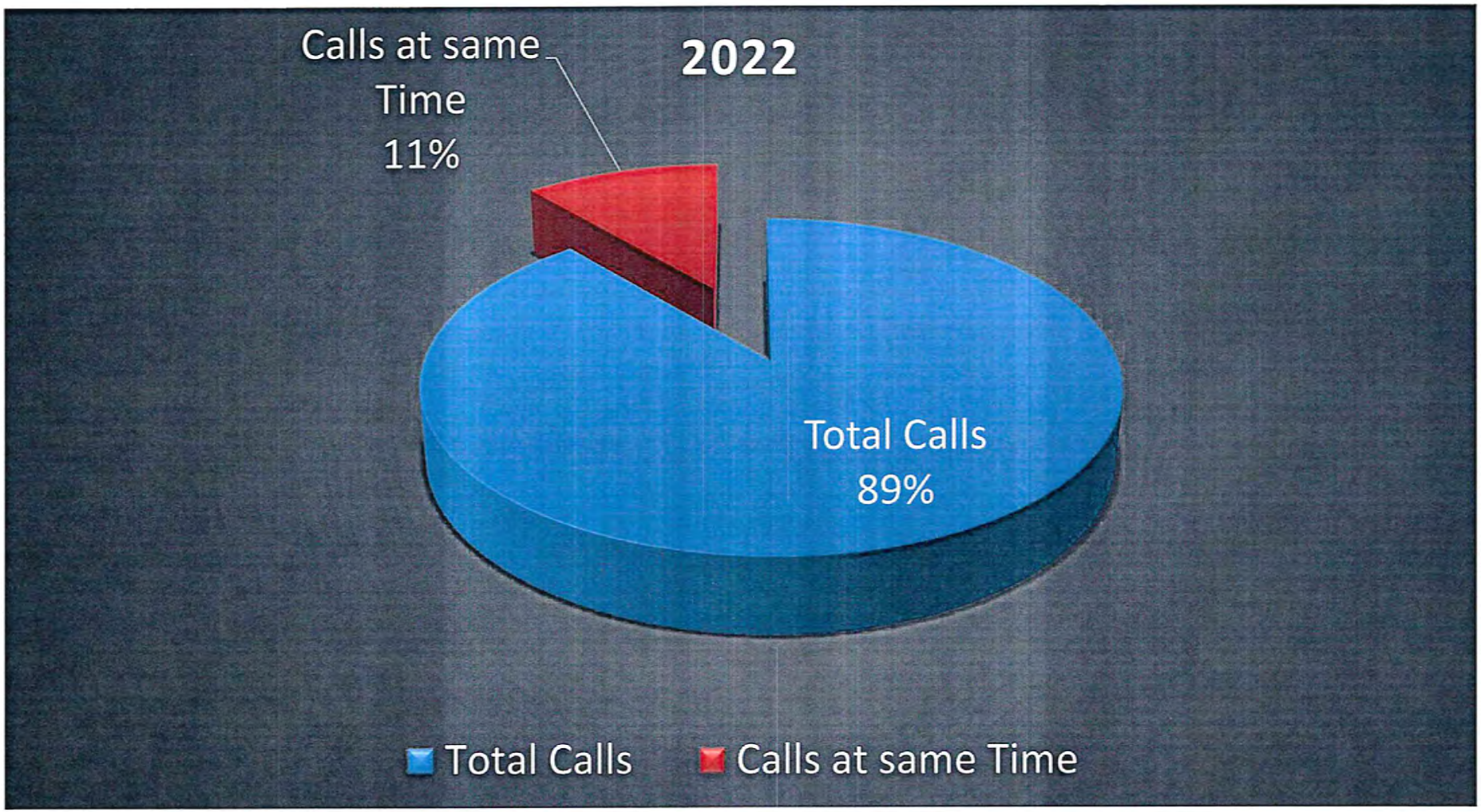

2018-2023 Call Types
300
250
200
150
100
50
0
245
139
71
233
170
74
196
178
69
233
238
111
240
236
95
257
225
105
2018
2019
2020
2021
2022
2023
Transports
EMS
FIRE

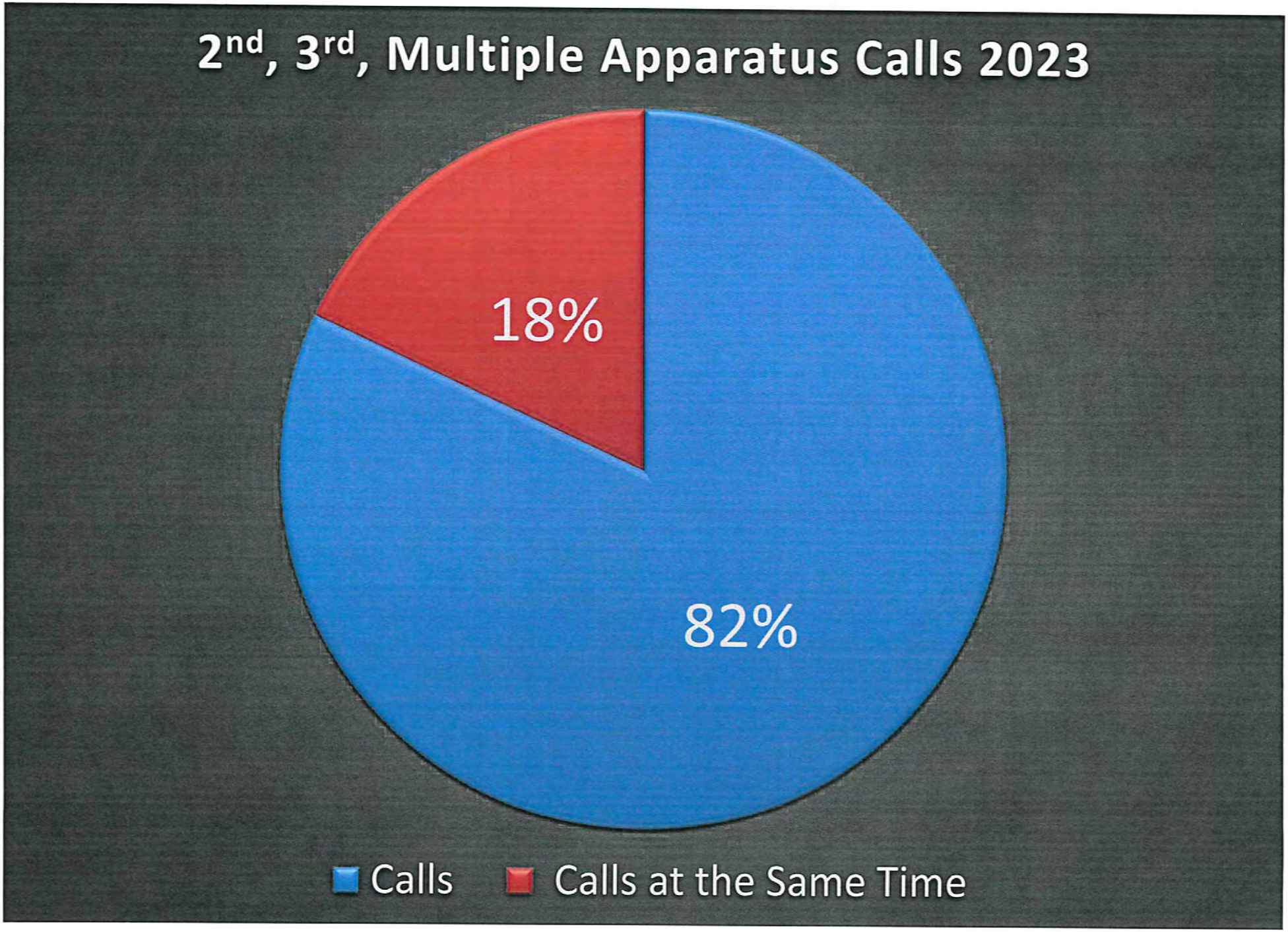

Time of Day Call Volume 2018-2023
2018
2021
2022
2023
20.00%
18.00%
16.00%
14.00%
12.00%
10.00%
8.00%
6.00%
4.00%
2.00%
0.00%
0000-0300
0301-0600
0601-0900
0901-1200
1201-1500
1501-1800
1801-2100
2101-0000

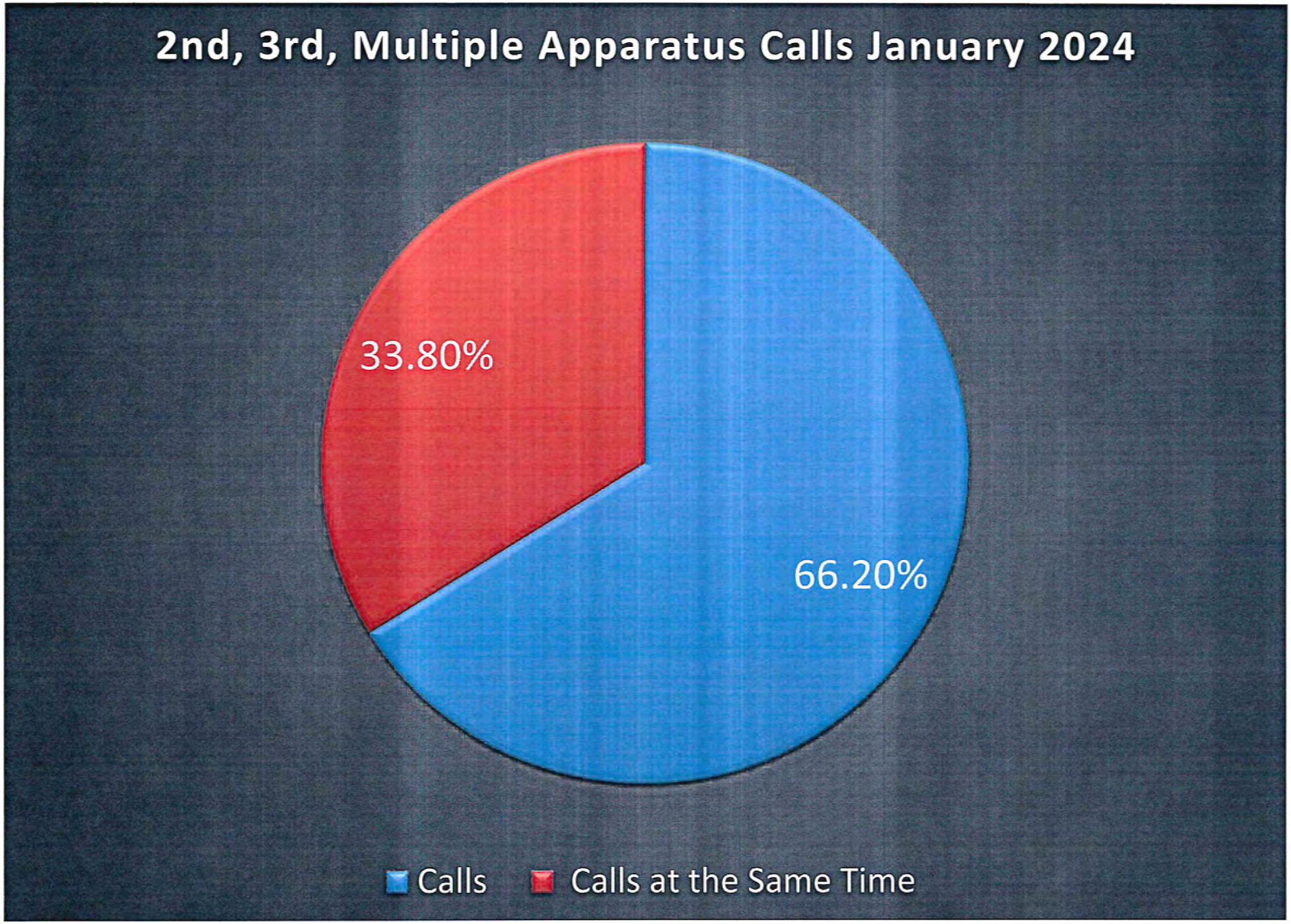
2nd, 3rd, Multiple Apparatus Calls

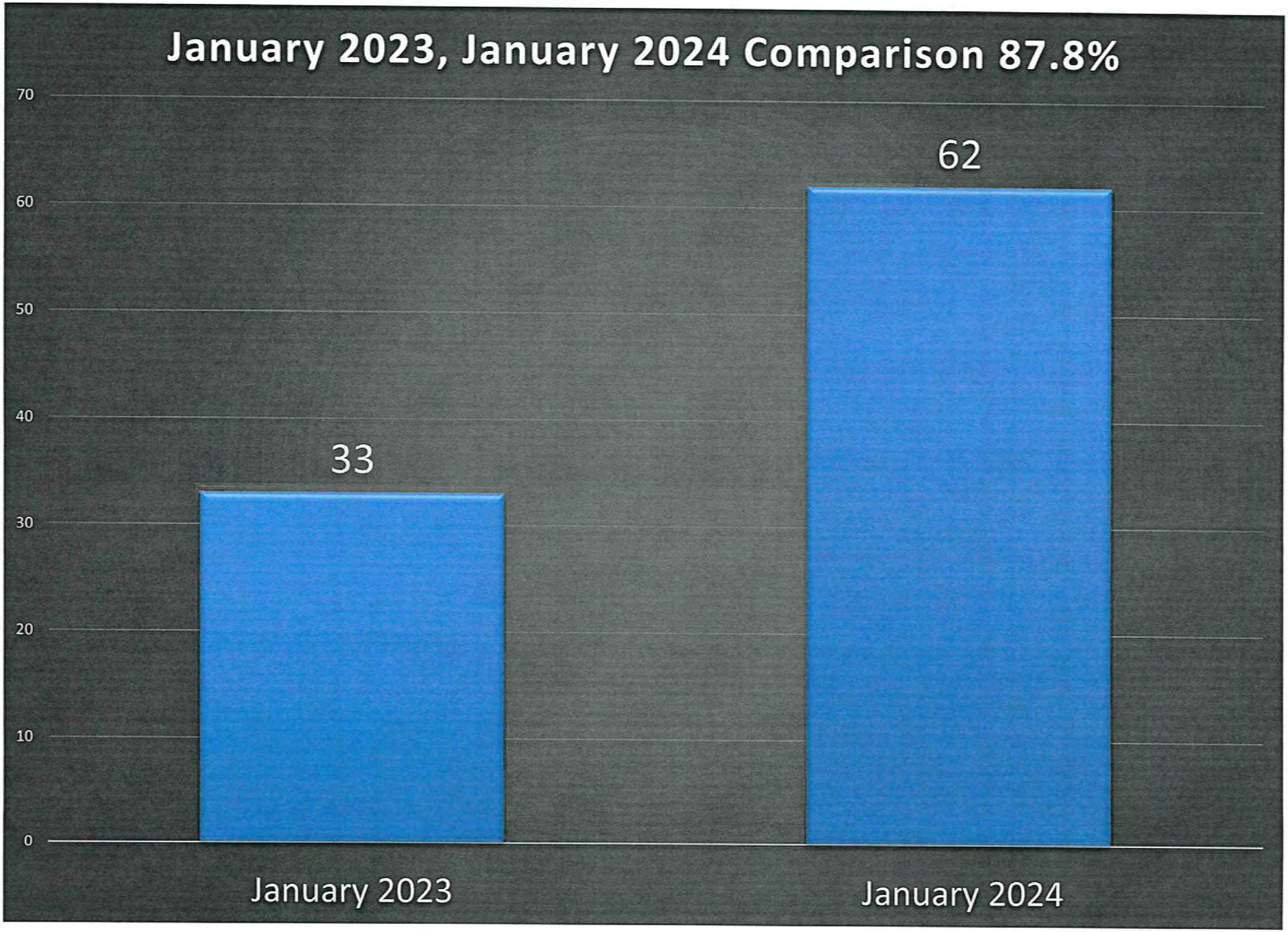


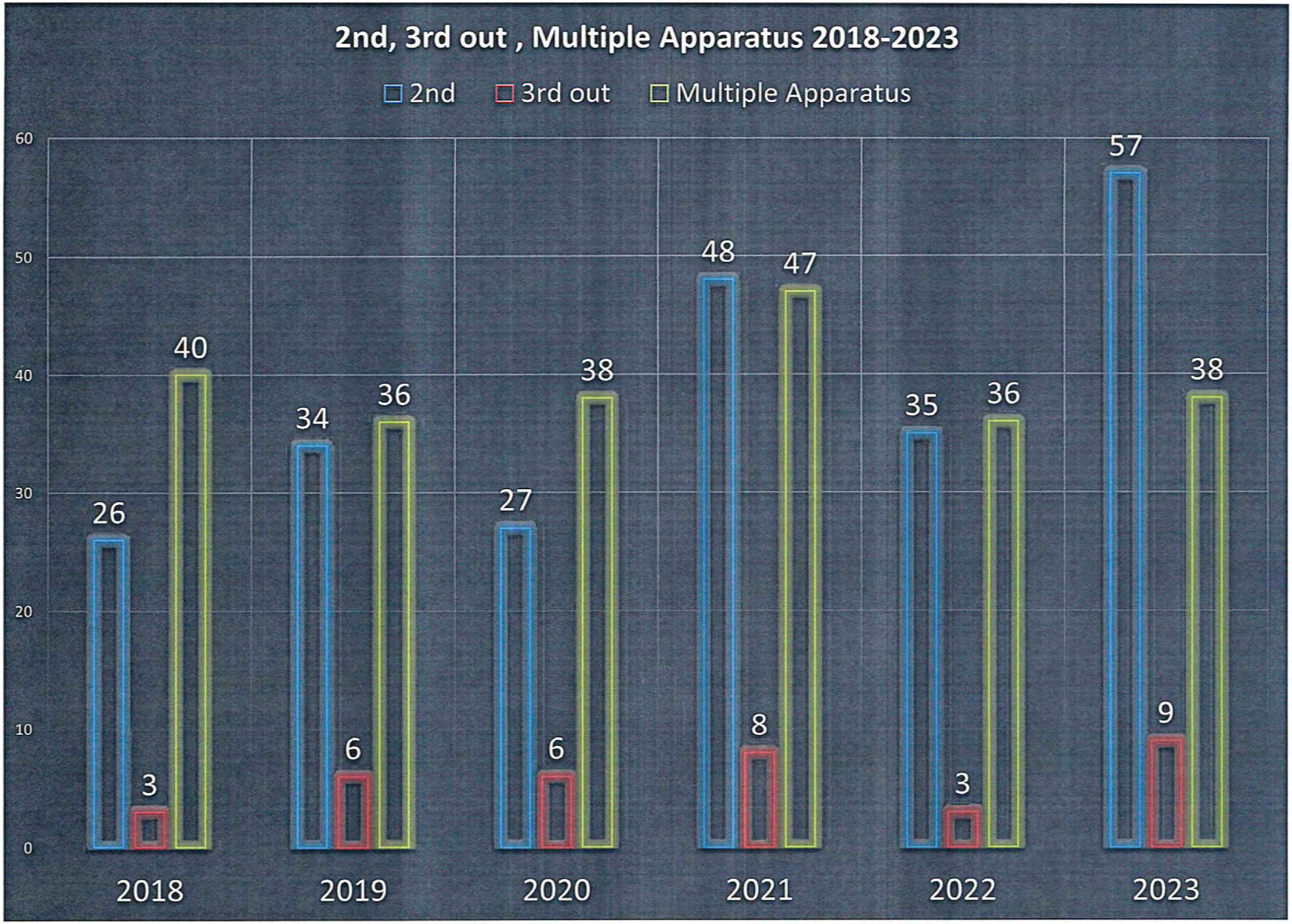
2nd, 3rd, Multiple Apparatus Calls

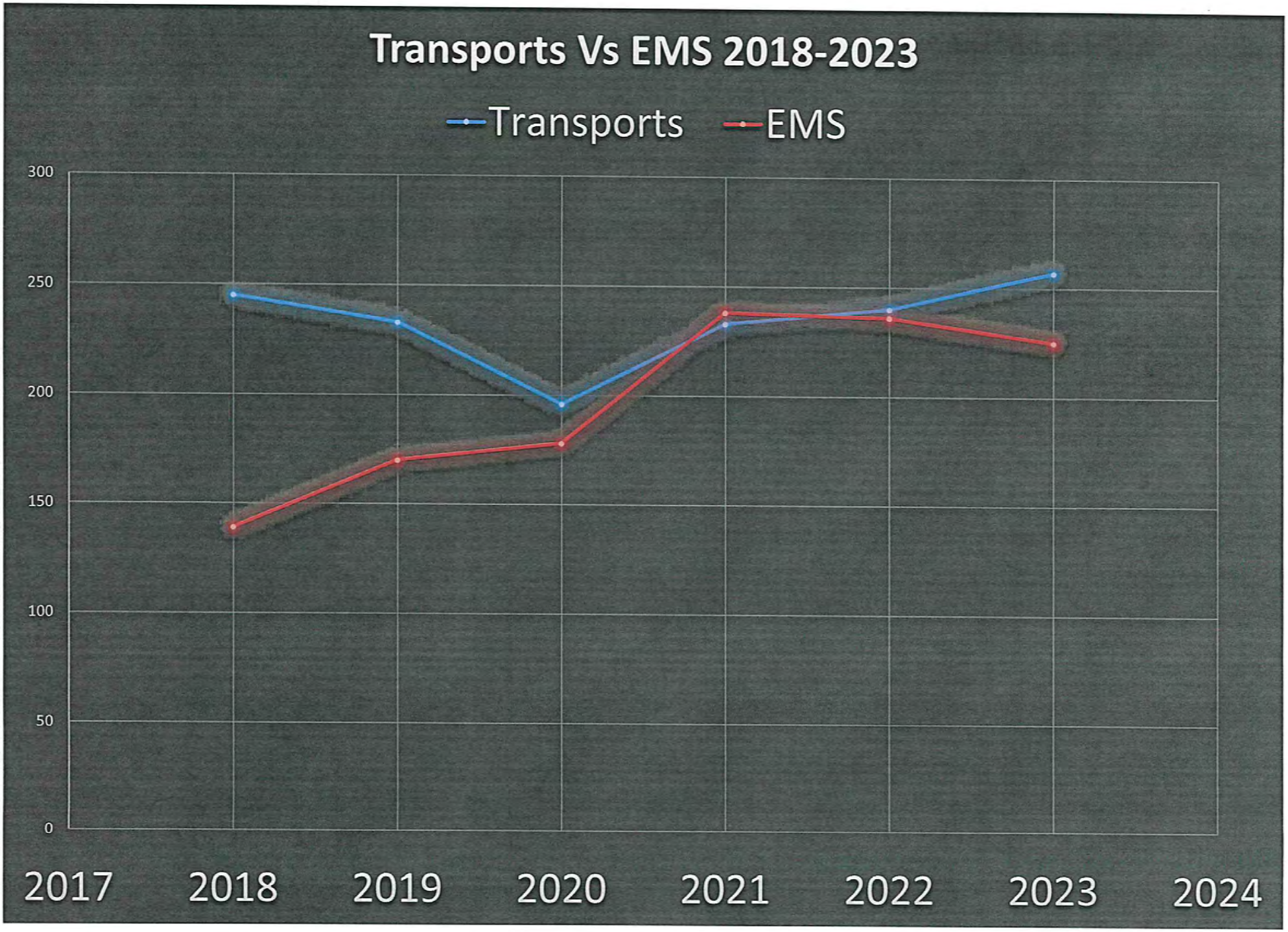


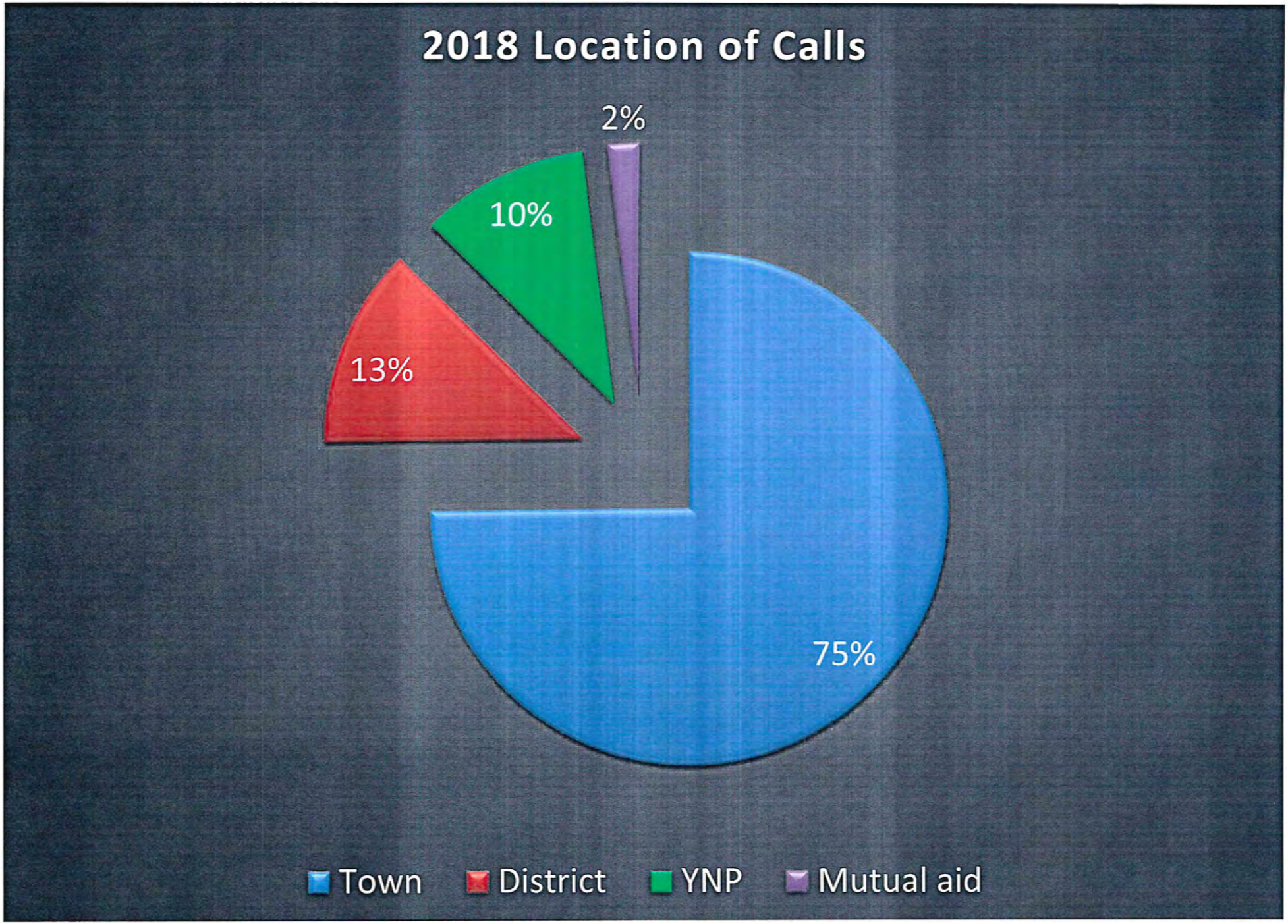

2nd, 3rd, Multiple Apparatus Calls 2023
18%
82%
Calls
Calls at the Same Time

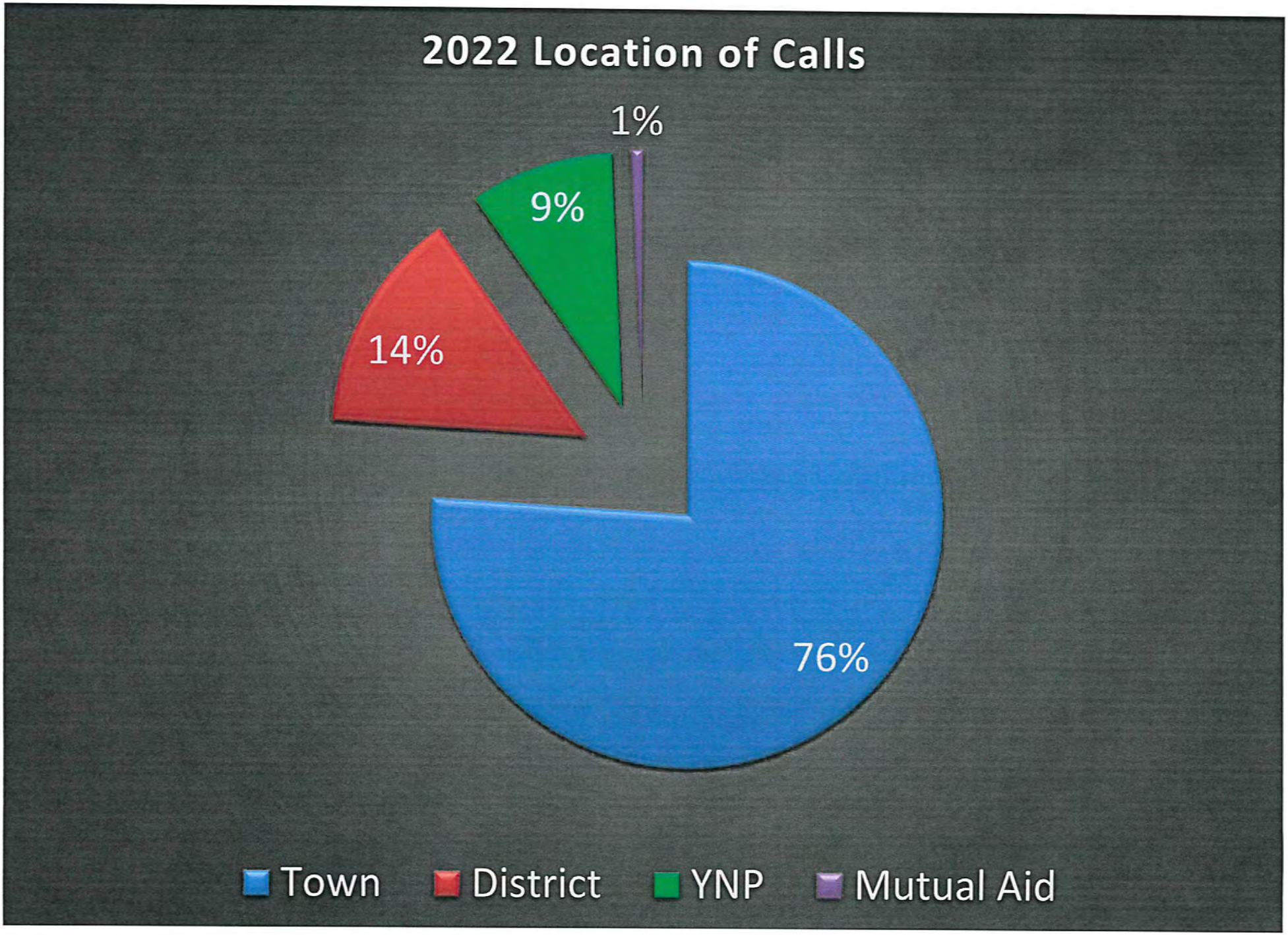

2nd, 3rd, Multiple Apparatus Calls January 2024
33.80%
66.20%
Calls
Calls at the Same Time

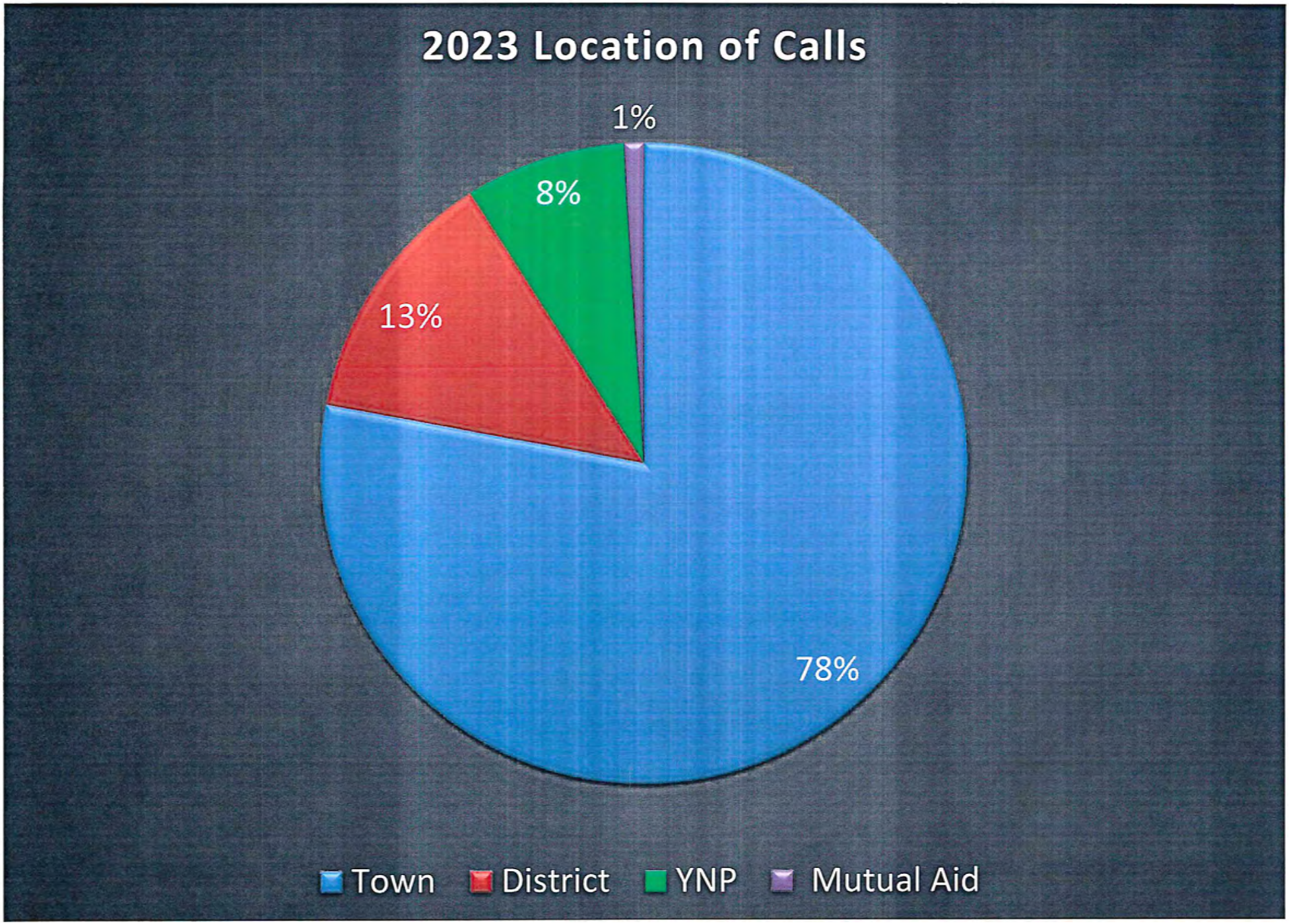

January 2023, January 2024 Comparison 87.8%
70
60
50
40
30
20
10
0
33
62
January 2023
January 2024

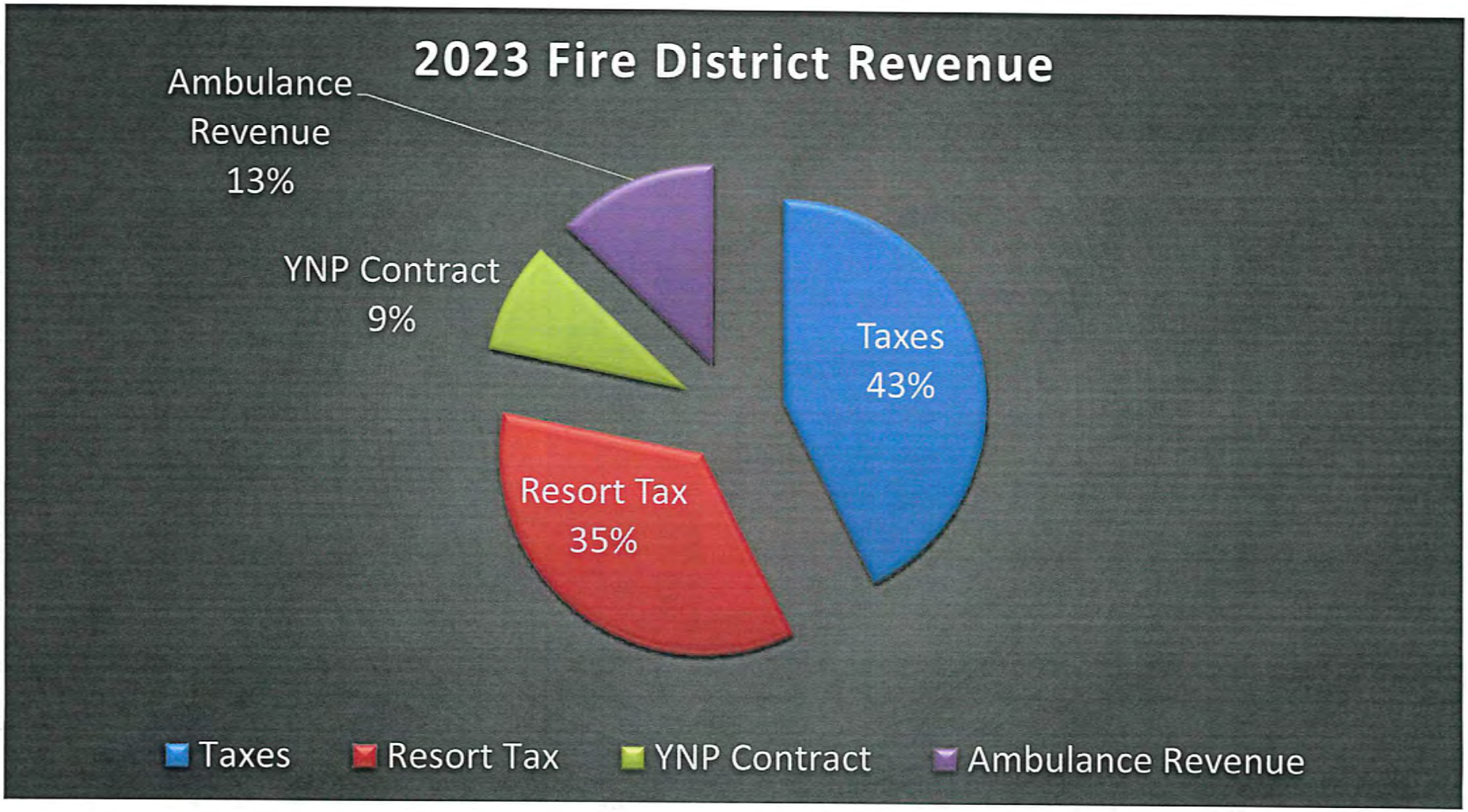

2nd, 3rd out , Multiple Apparatus 2018-2023
2nd
3rd out
Multiple Apparatus
60
50
40
30
20
10
0
26
3
40
34
6
36
27
6
38
48
8
47
35
3
36
57
9
38
2018
2019
2020
2021
2022
2023

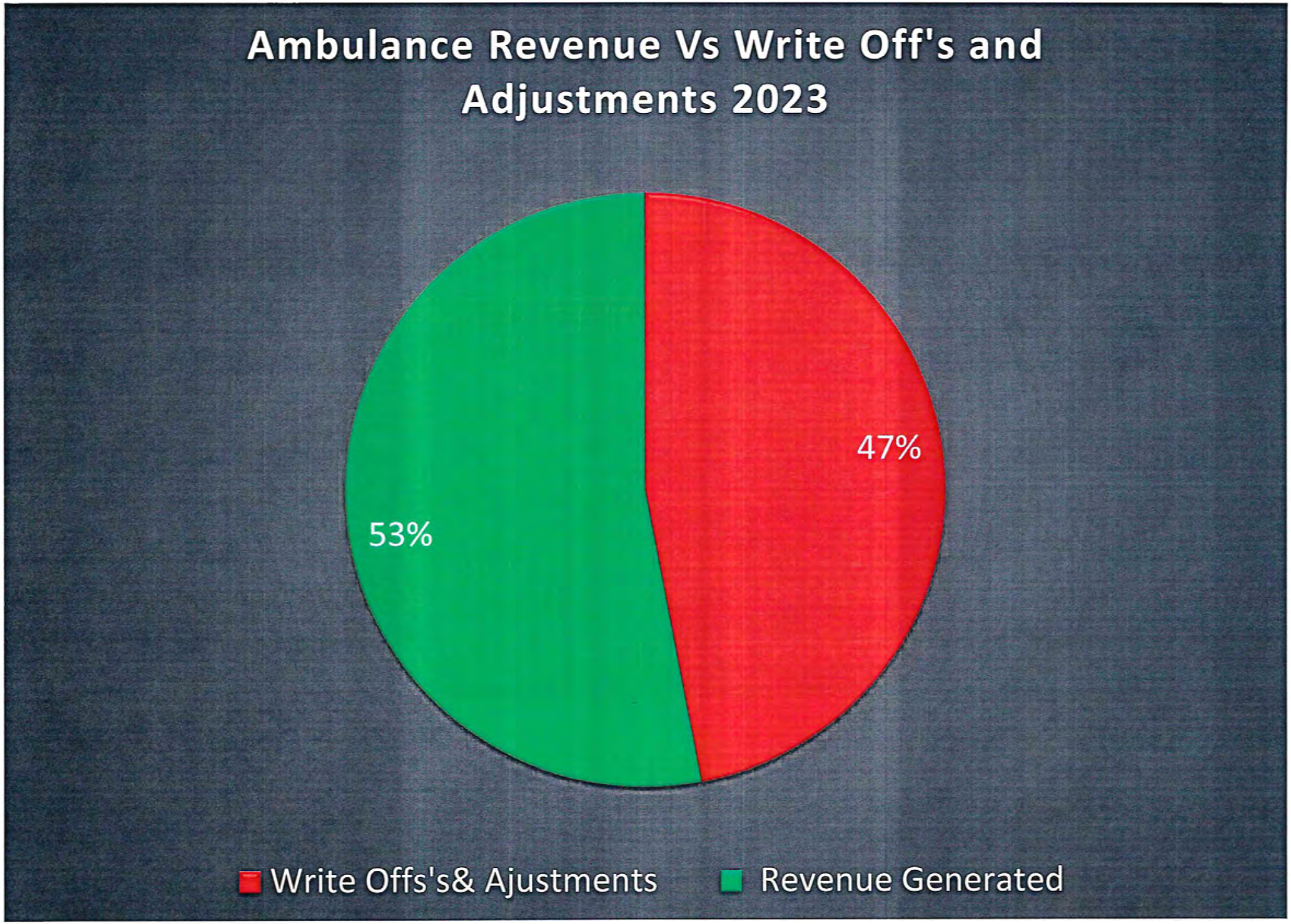

Transports Vs EMS 2018-2023
Transports
EMS
300
250
200
150
100
50
0
2017
2018
2019
2020
2021
2022
2023
2024

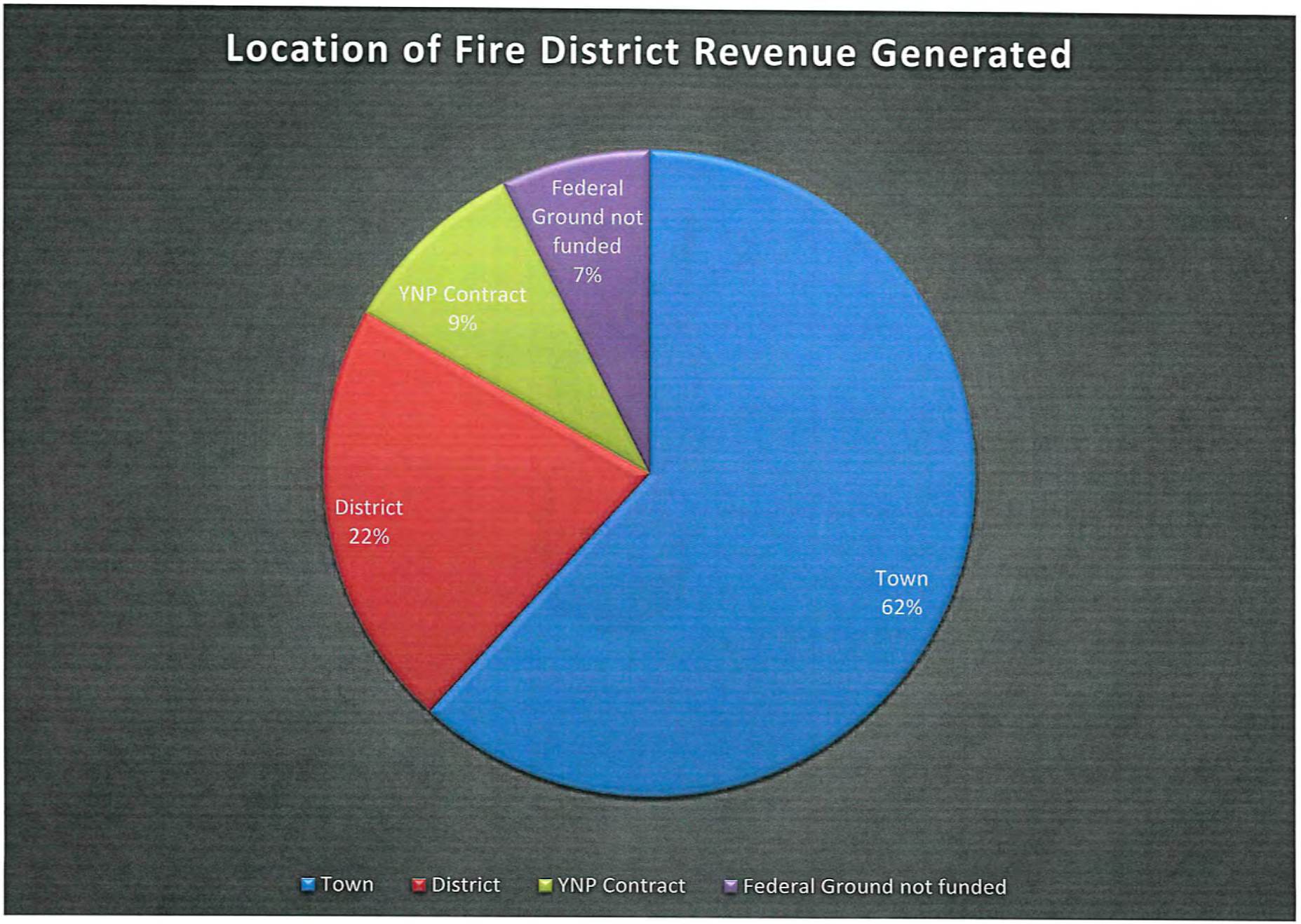

2018 Location of Calls
2%
10%
13%
75%
Town
District
YNP
Mutual aid


2022 Location of Calls
1%
9%
14%
76%
Town
District
YNP
Mutual Aid


2023 Location of Calls
1%
8%
13%
78%
Town
District
YNP
Mutual Aid


2023 Fire District Revenue
Ambulance Revenue 13%
YNP Contract 9%
Taxes 43%
Resort Tax 35%
Taxes
Resort Tax
YNP Contract
Ambulance Revenue

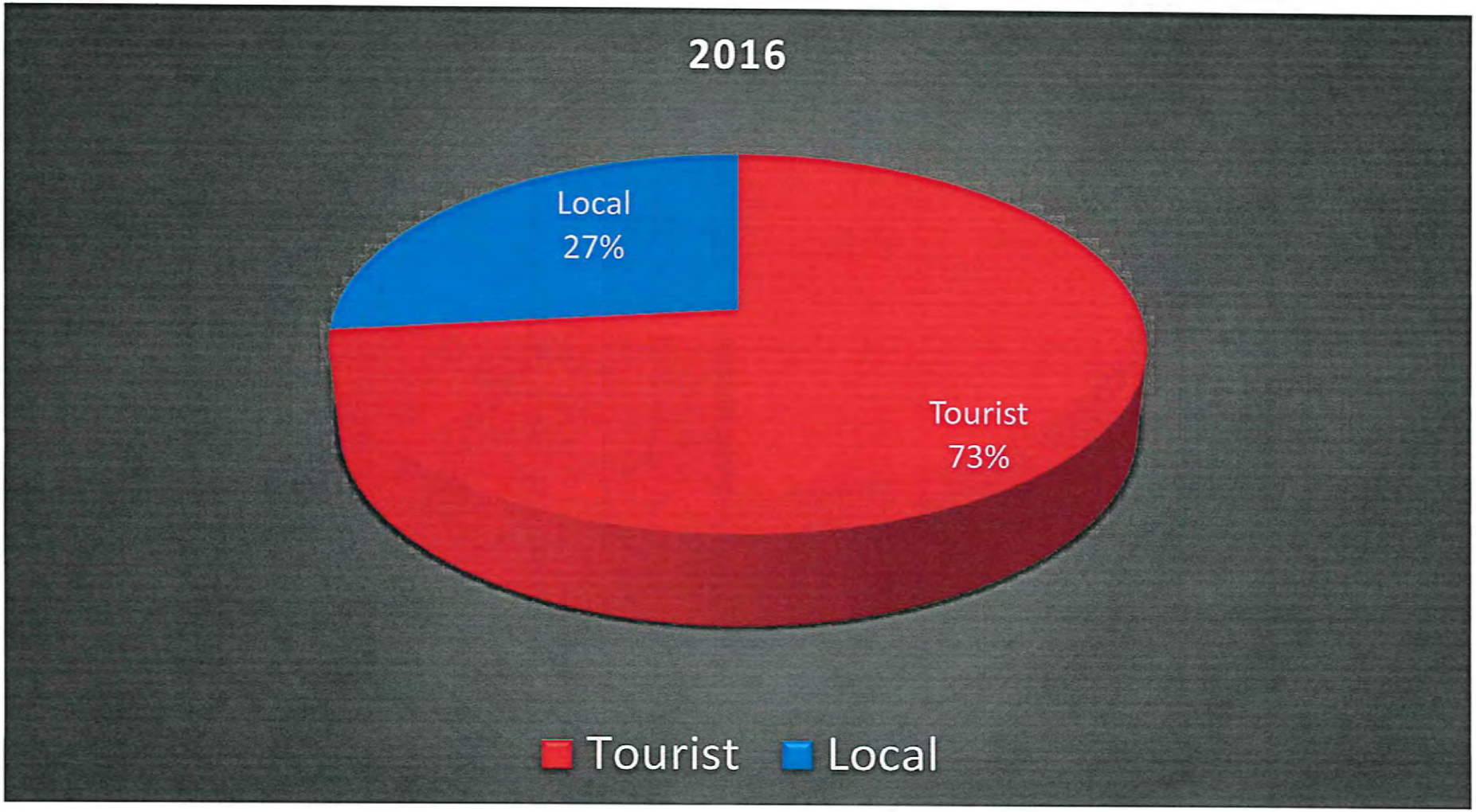

Ambulance Revenue Vs Write Off's and Adjustments 2023
47%
53%
Write Offs's& Ajustments
Revenue Generated


Location of Fire District Revenue Generated
Federal Ground not funded 7%
YNP Contract 9%
District 22%
Town 62%
Town
District
YNP Contract
Federal Ground not funded

Patient Demographics

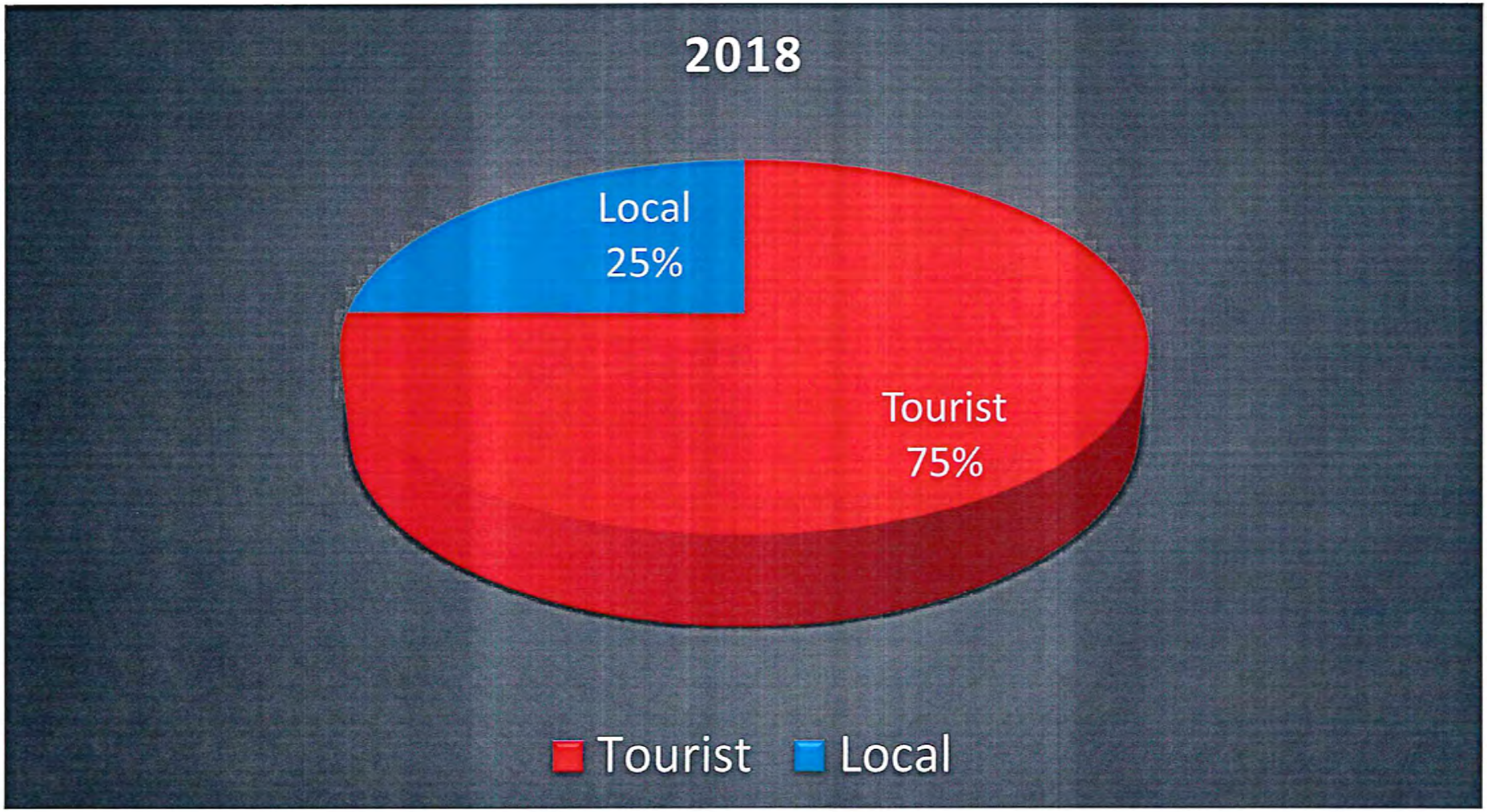
73% of our Patients are Tourists

27% of our Patients are Live within the District



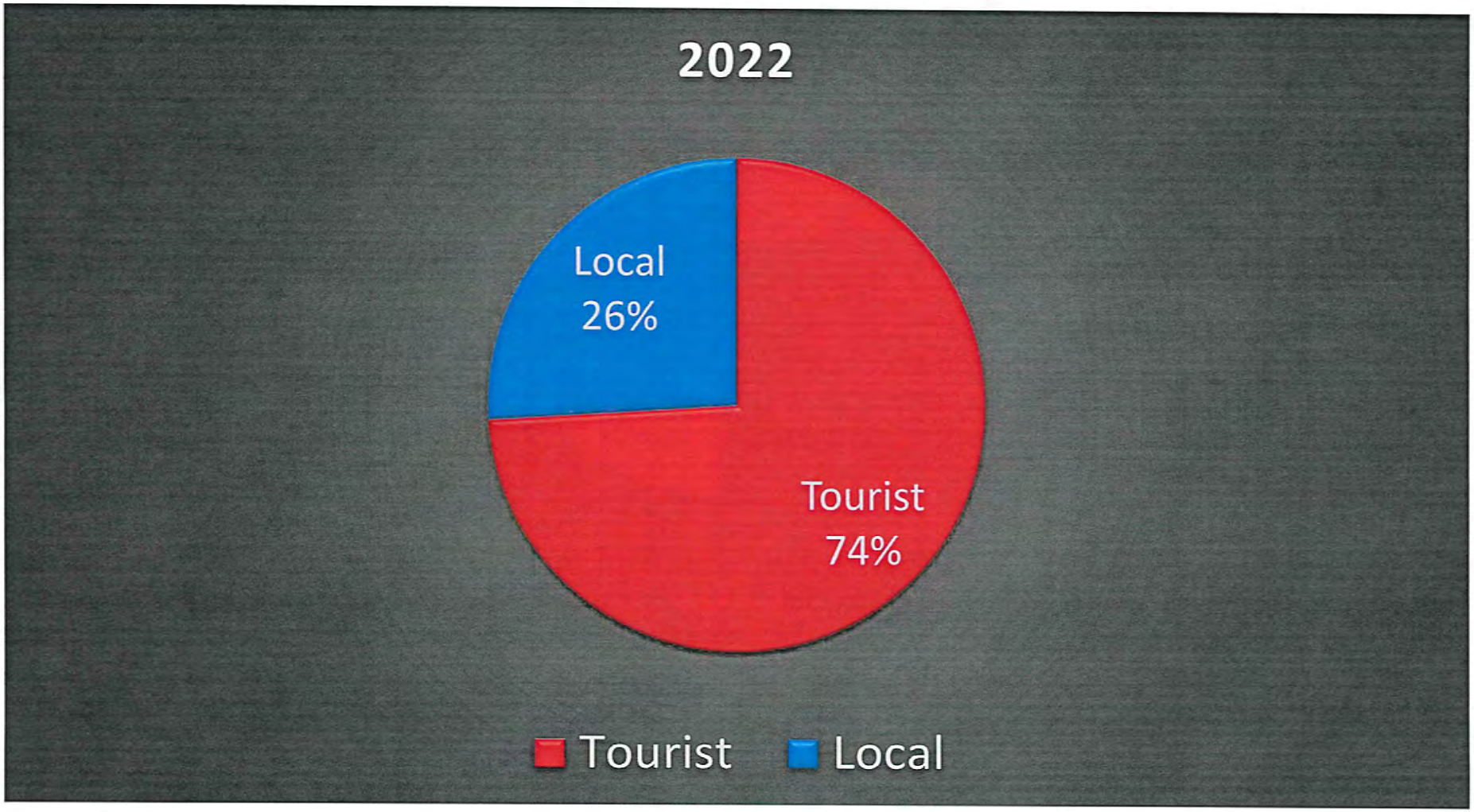
75.2% of our patients are tourists

24.8% of our patients live within the District



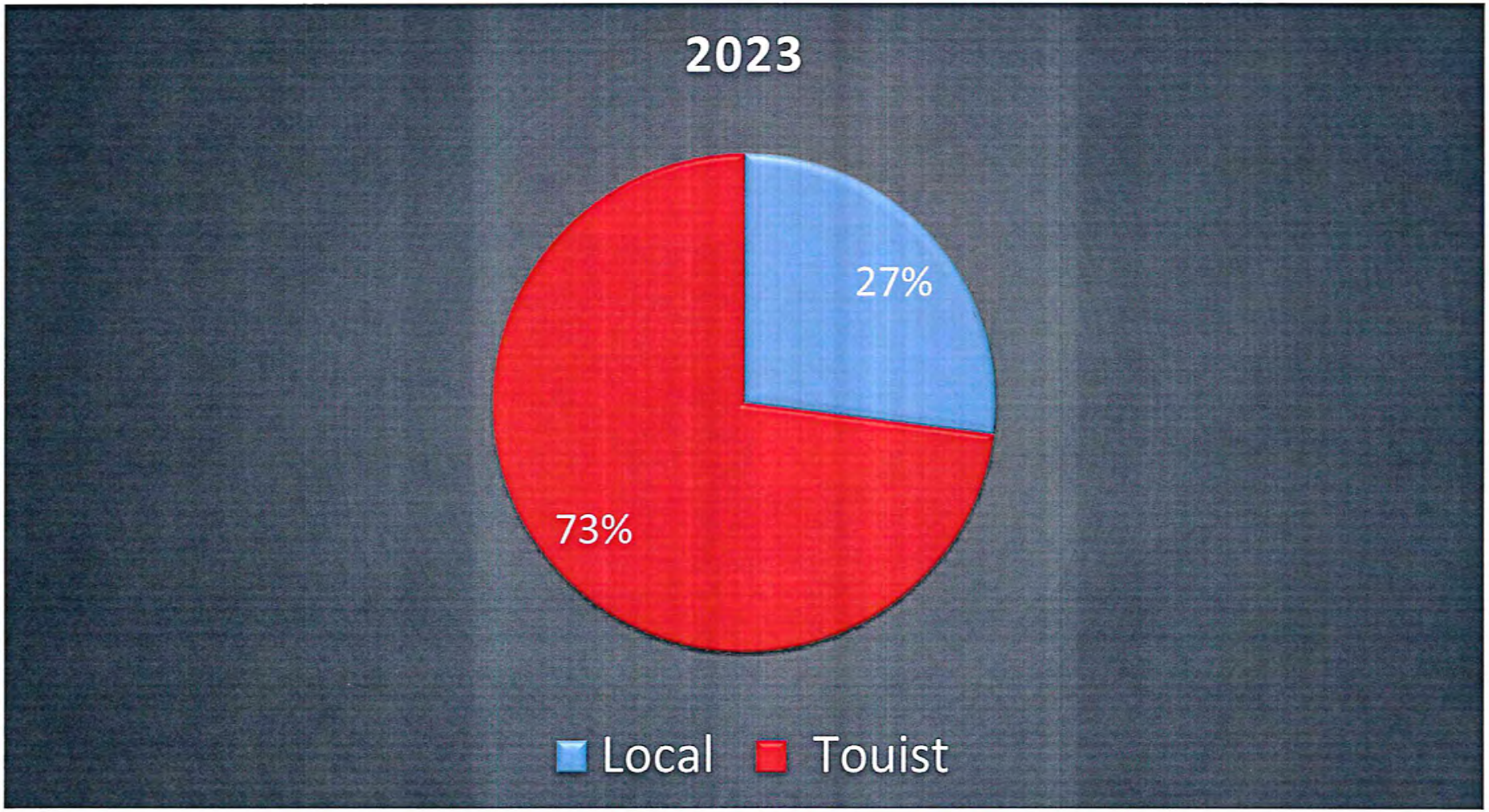
74% of our patients are tourists

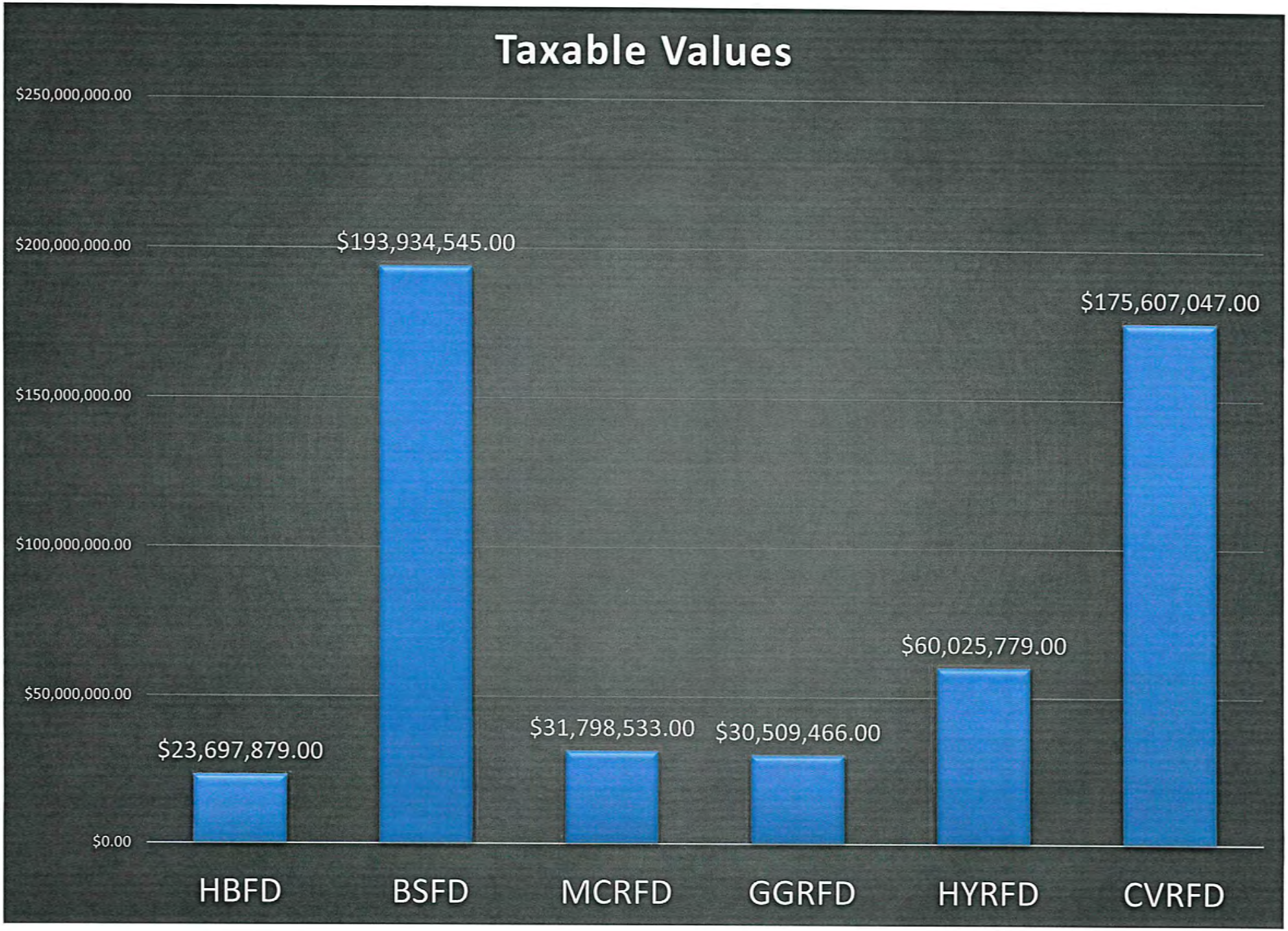
26% of our patients live within the District

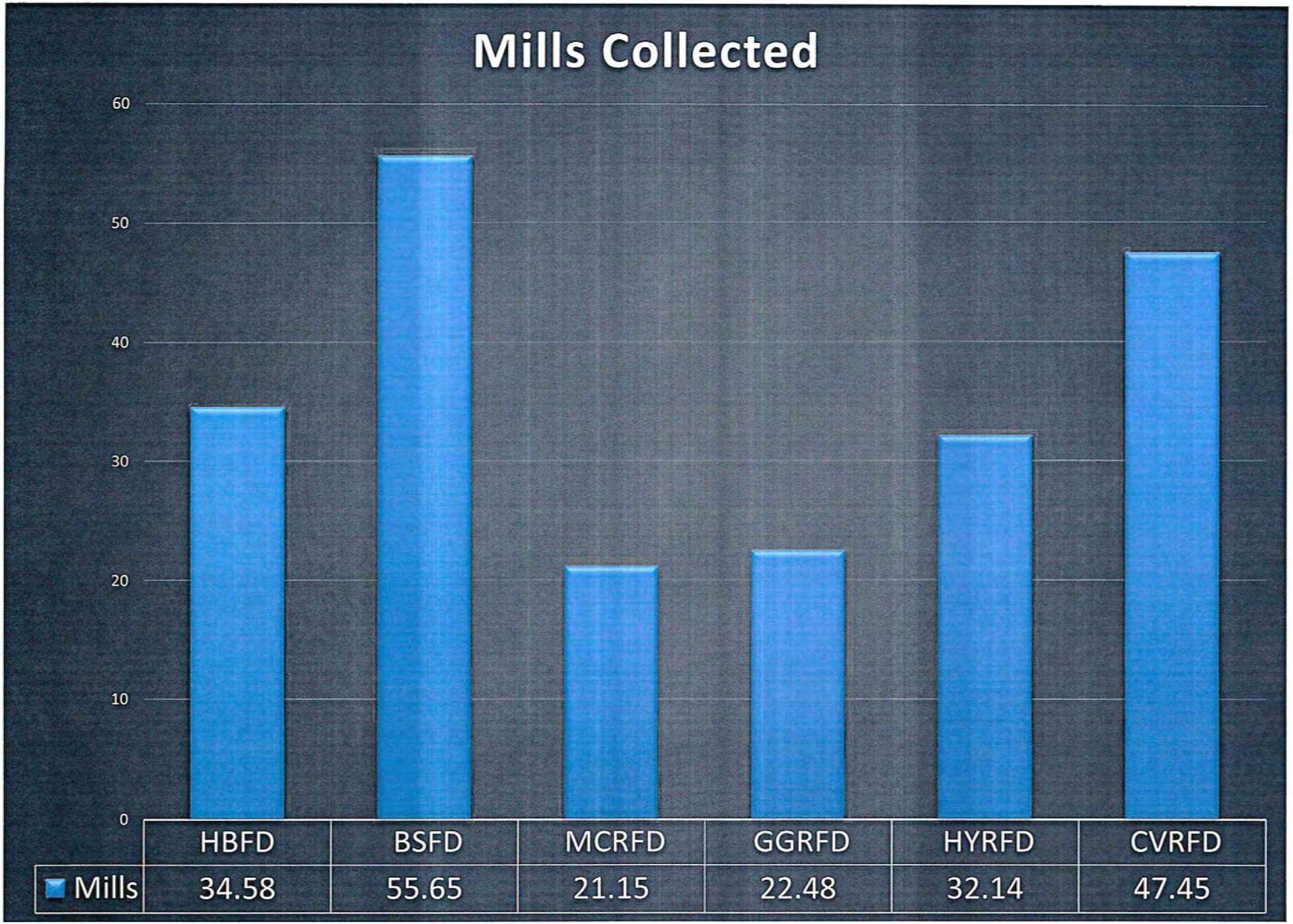


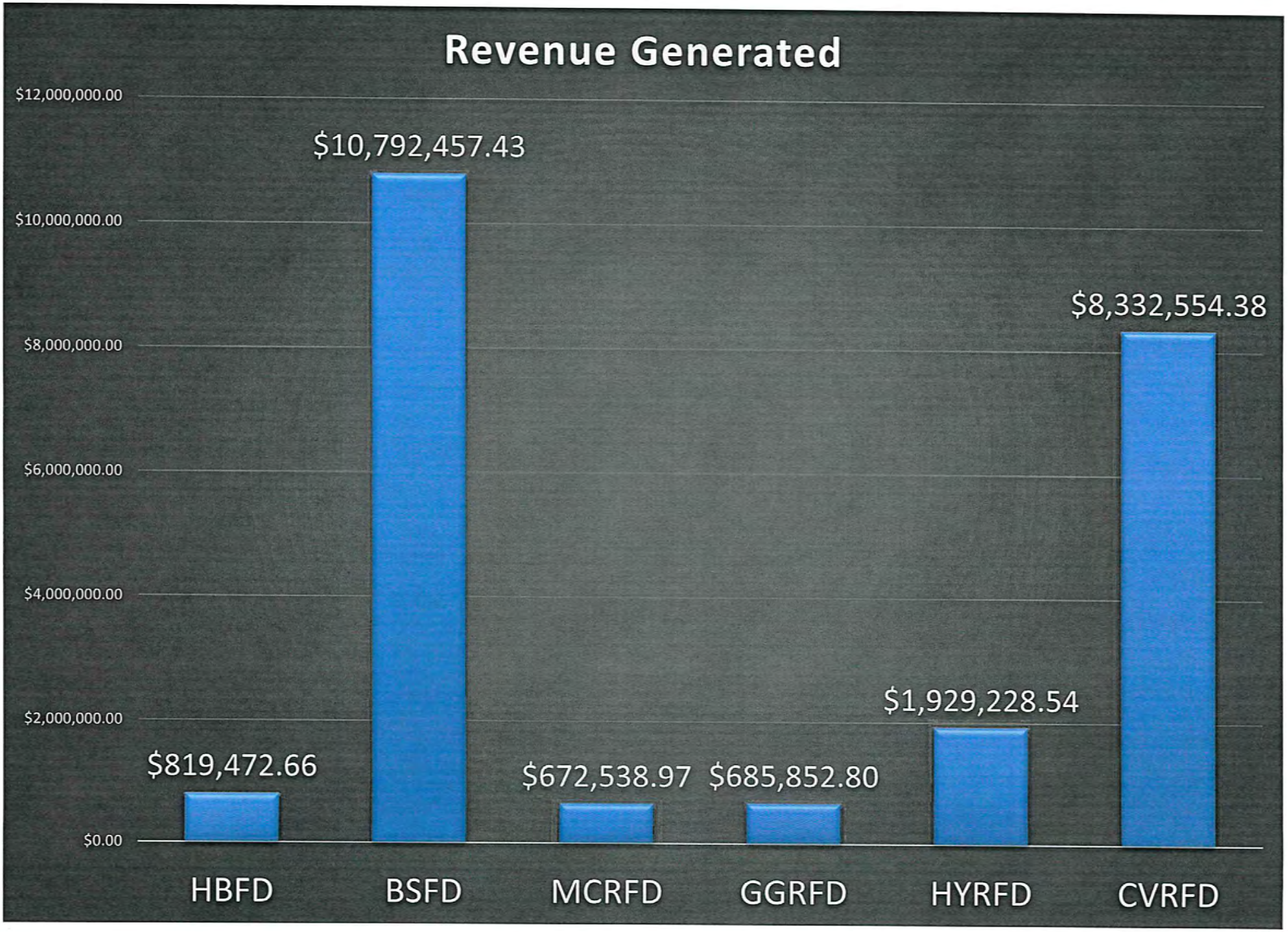
73% of our patients are tourists

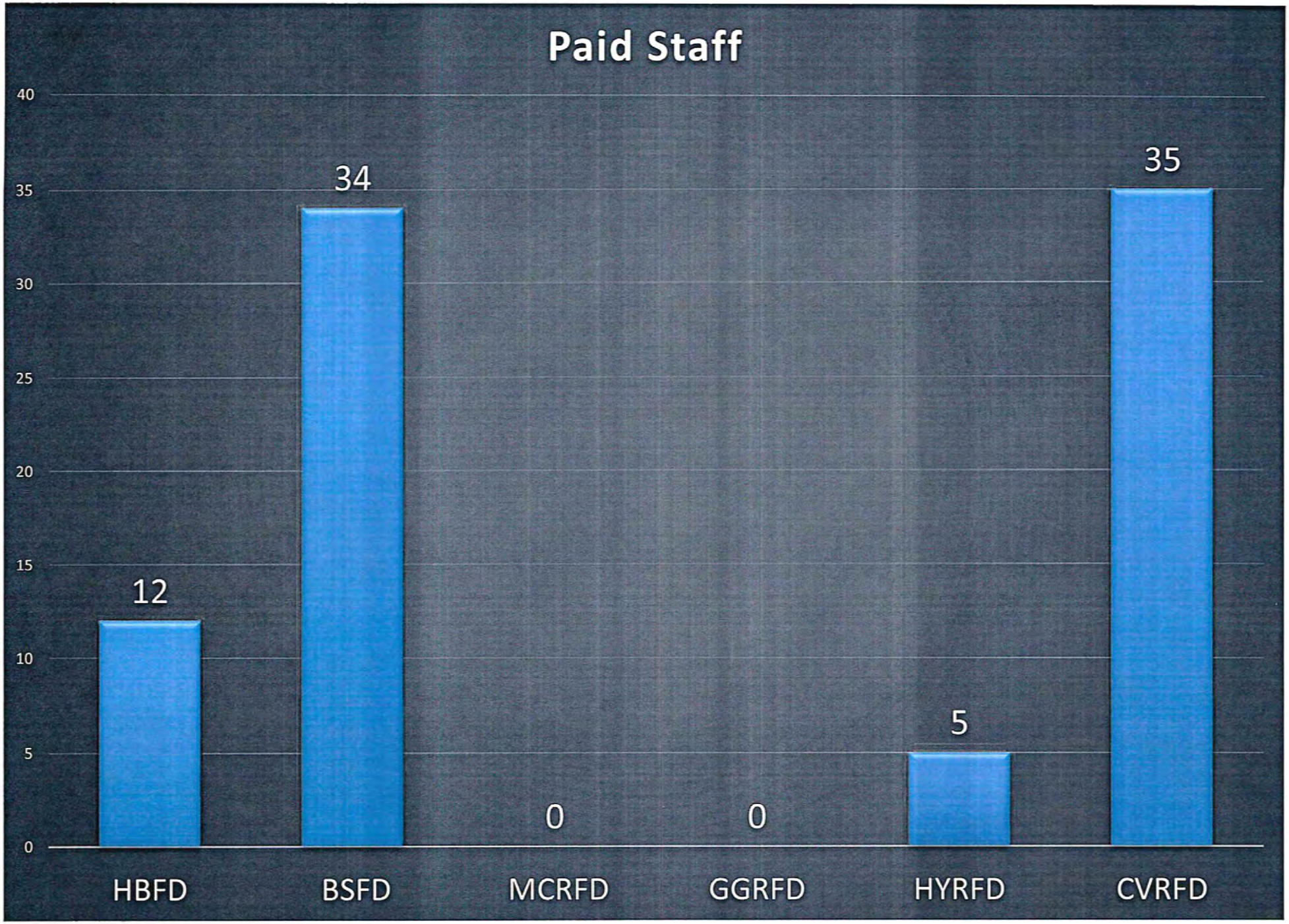
27% of our patients live within the District

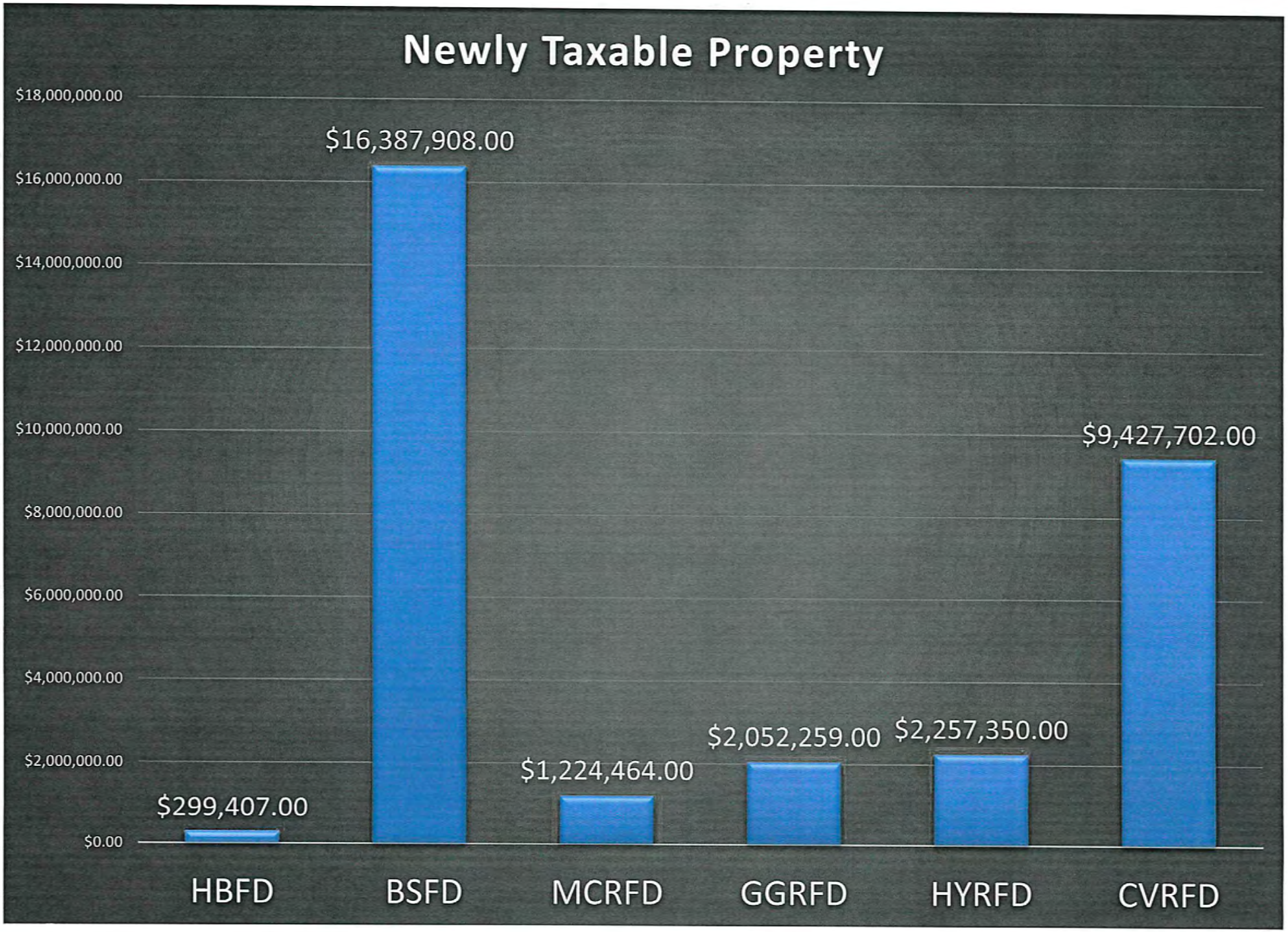


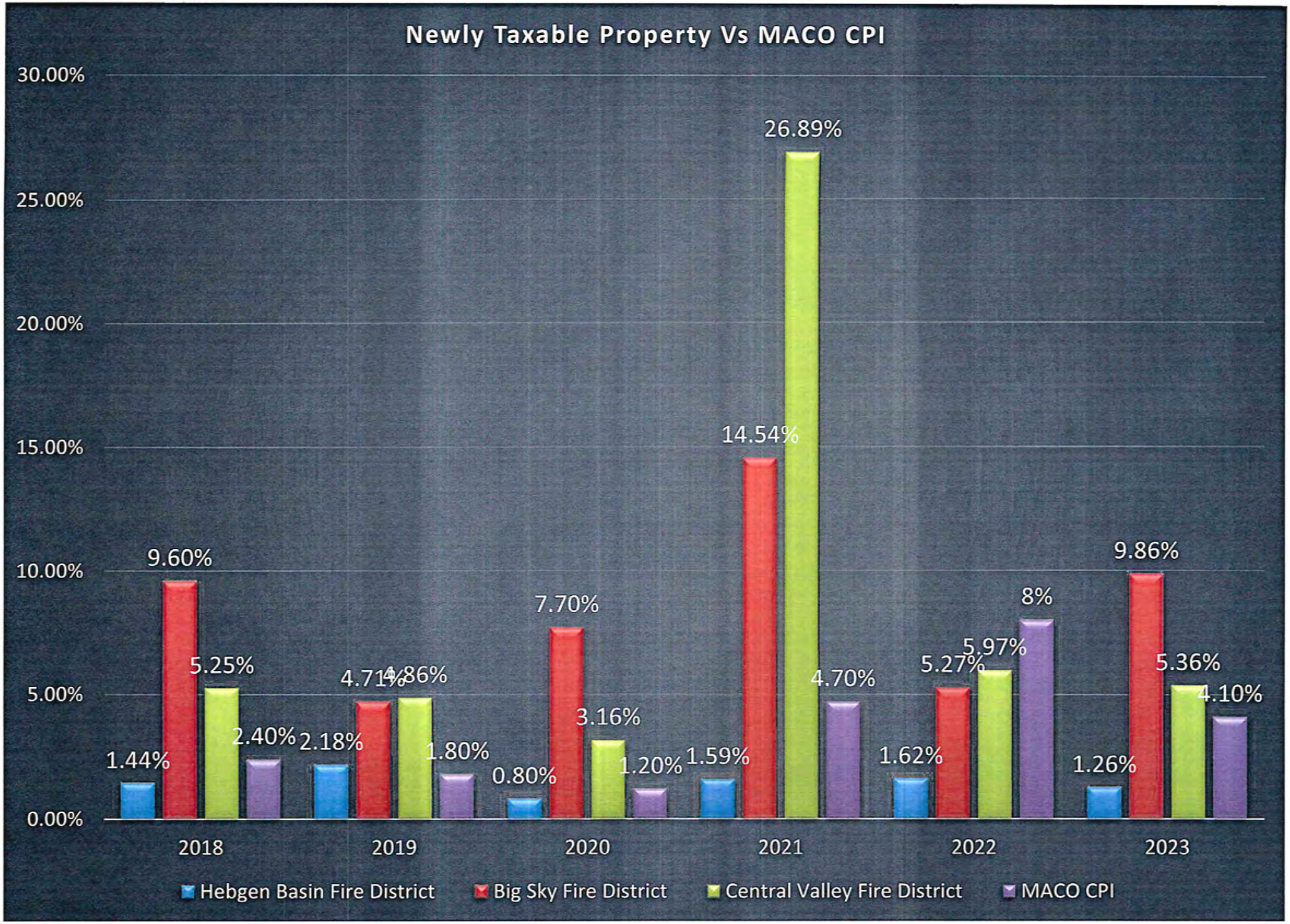

Taxable Values
$250,000,000.00
$200,000,000.00
$150,000,000.00
$100,000,000.00
$50,000,000.00
$0.00
$23,697,879.00
$193,934,545.00
$31,798,533.00
$30,509,466.00
$60,025,779.00
$175,607,047.00
HBFD
BSFD
MCRFD
GGRFD
HYRFD
CVRFD


Mills Collected
60
50
40
30
20
10
0
HBFD
BSFD
MCRFD
GGRFD
HYRFD
CVRFD
Mills
34.58
55.65
21.15
22.48
32.14
47.45

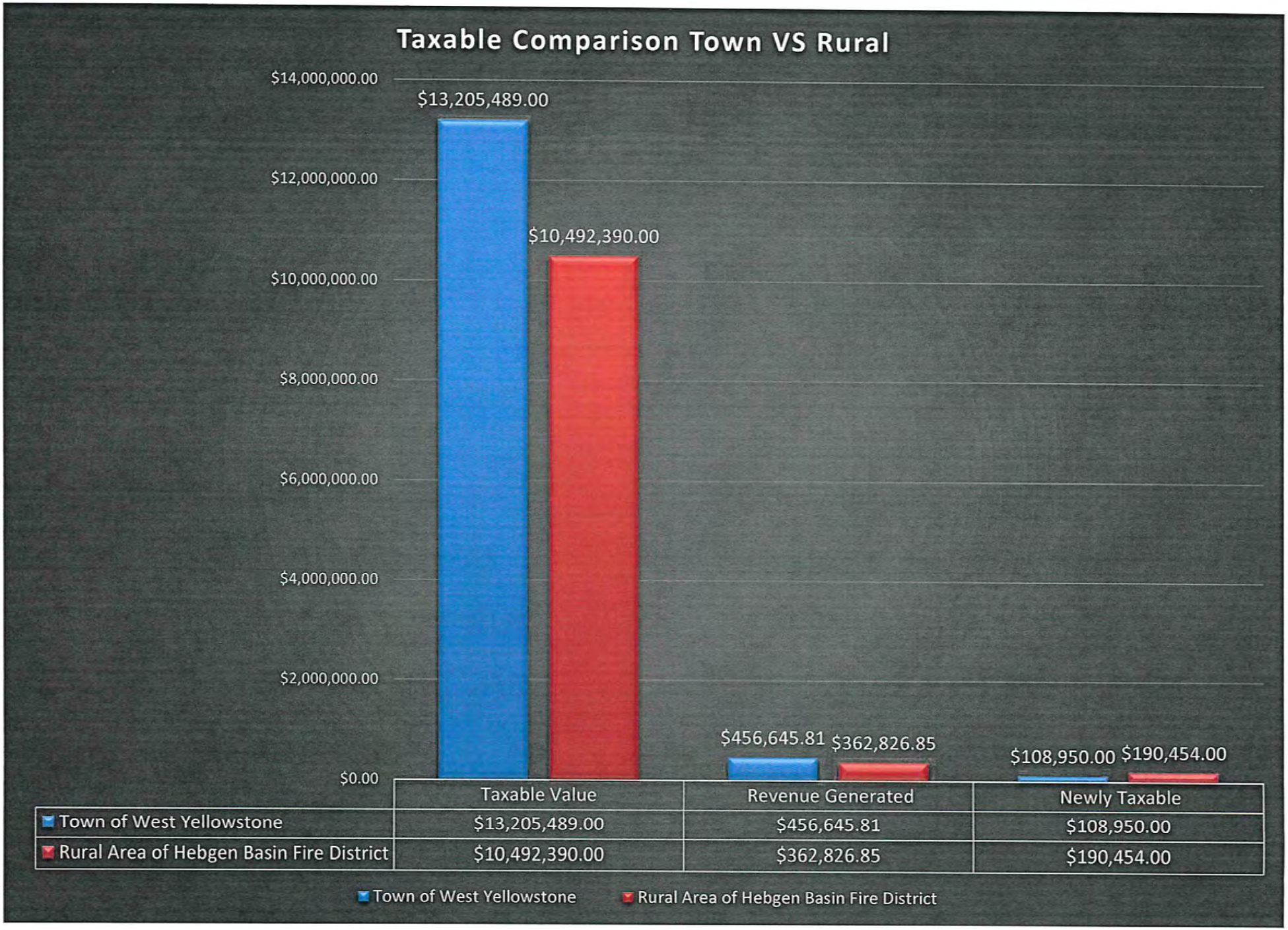

Revenue Generated
$12,000,000.00
$10,000,000.00
$8,000,000.00
$6,000,000.00
$4,000,000.00
$2,000,000.00
$0.00
$819,472.66
$10,792,457.43
$672,538.97
$685,852.80
$1,929,228.54
$8,332,554.38
HBFD
BSFD
MCRFD
GGRFD
HYRFD
CVRFD


Paid Staff
40
35
30
25
20
15
10
5
0
12
34
0
0
5
35
HBFD
BSFD
MCRFD
GGRFD
HYRFD
CVRFD


Newly Taxable Property
$18,000,000.00
$16,000,000.00
$14,000,000.00
$12,000,000.00
$10,000,000.00
$8,000,000.00
$6,000,000.00
$4,000,000.00
$2,000,000.00
$0.00
$299,407.00
$16,387,908.00
$1,224,464.00
$2,052,259.00
$2,257,350.00
$9,427,702.00
HBFD
BSFD
MCRFD
GGRFD
HYRFD
CVRFD


Newly Taxable Property Vs MACO CPI
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
1.44%
9.60%
5.25%
2.40%
2.18%
4.71%
4.86%
1.80%
0.80%
7.70%
3.16%
1.20%
1.59%
14.54%
26.89%
4.70%
1.62%
5.27%
5.97%
8%
1.26%
9.86%
5.36%
4.10%
2018
2019
2020
2021
2022
2023
Hebgen Basin Fire District
Big Sky Fire District
Central Valley Fire District
MACO CPI

Taxable Comparison Town VS Rural



	Taxable Value	Revenue Generated	Newly Taxable
Town of West Yellowstone	$13,205,489.00	$456,645.81	$108,950.00
Rural Area of Hebgen Basin Fire District	$10,492,390.00	$362,826.85	$190,454.00

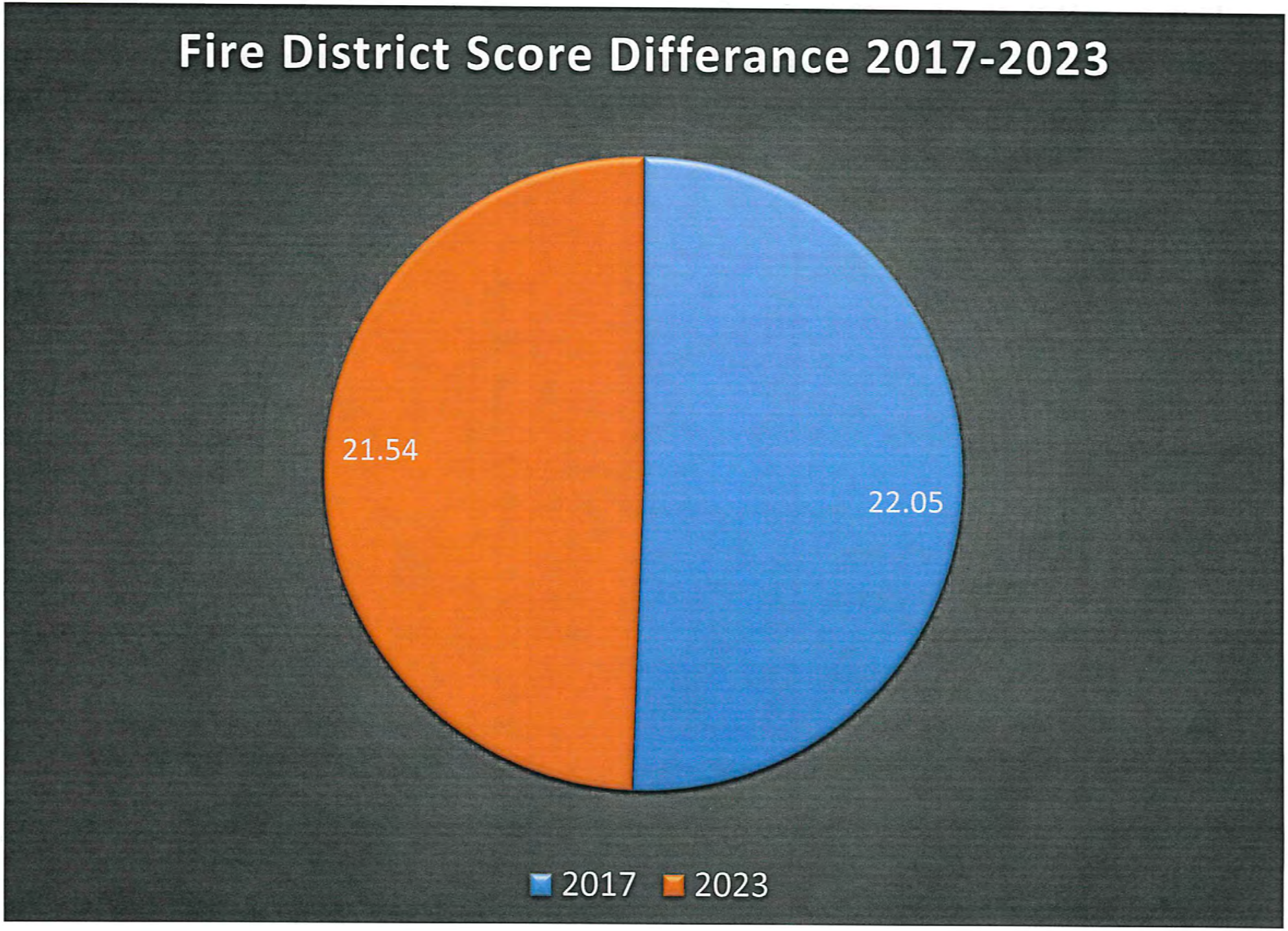
2023 ISO Evaluation

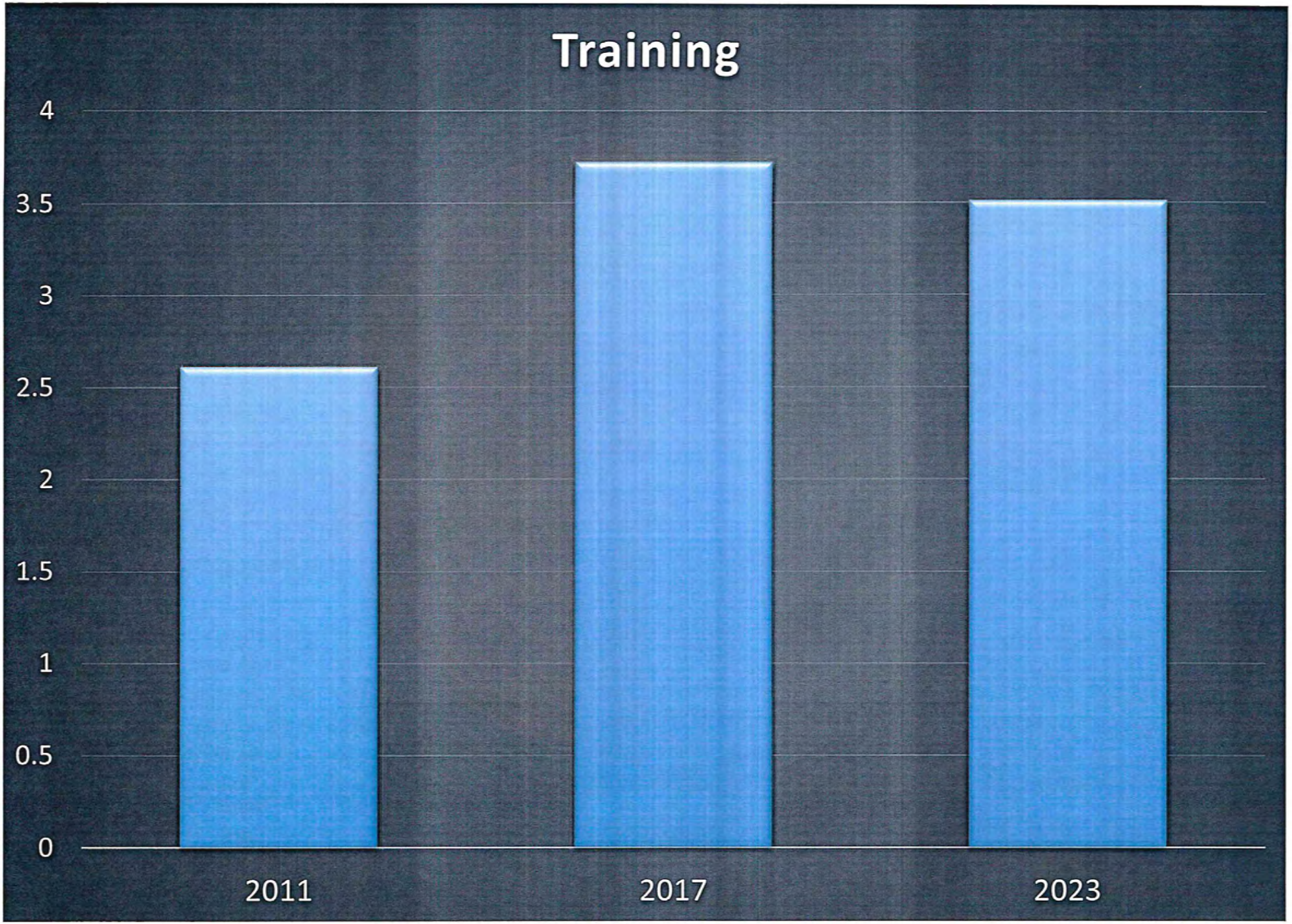
- 2017 Fire District was evaluated by ISO and received an overall score of 60.15

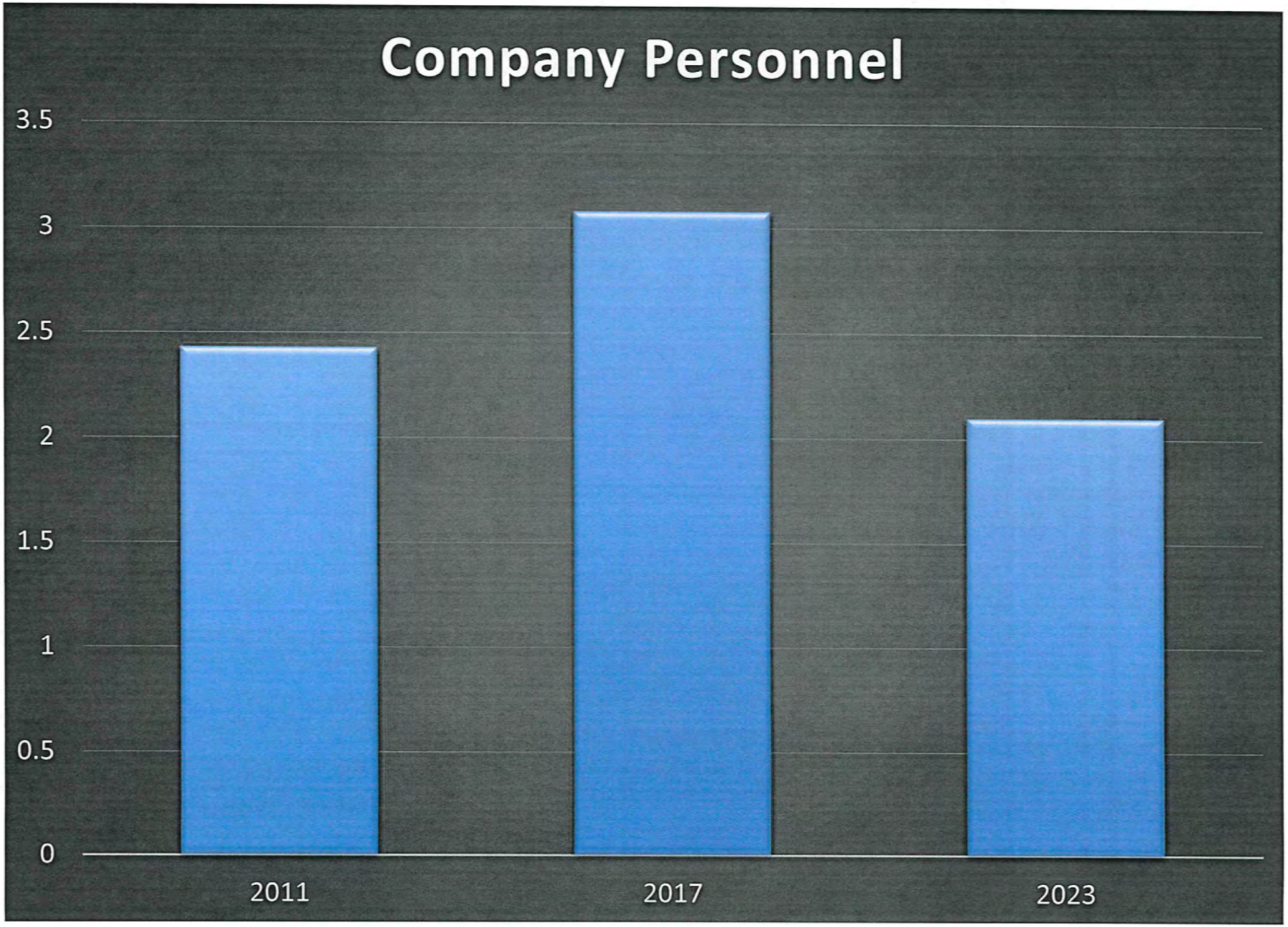
- Class 4 rating
- 60.00-69.99

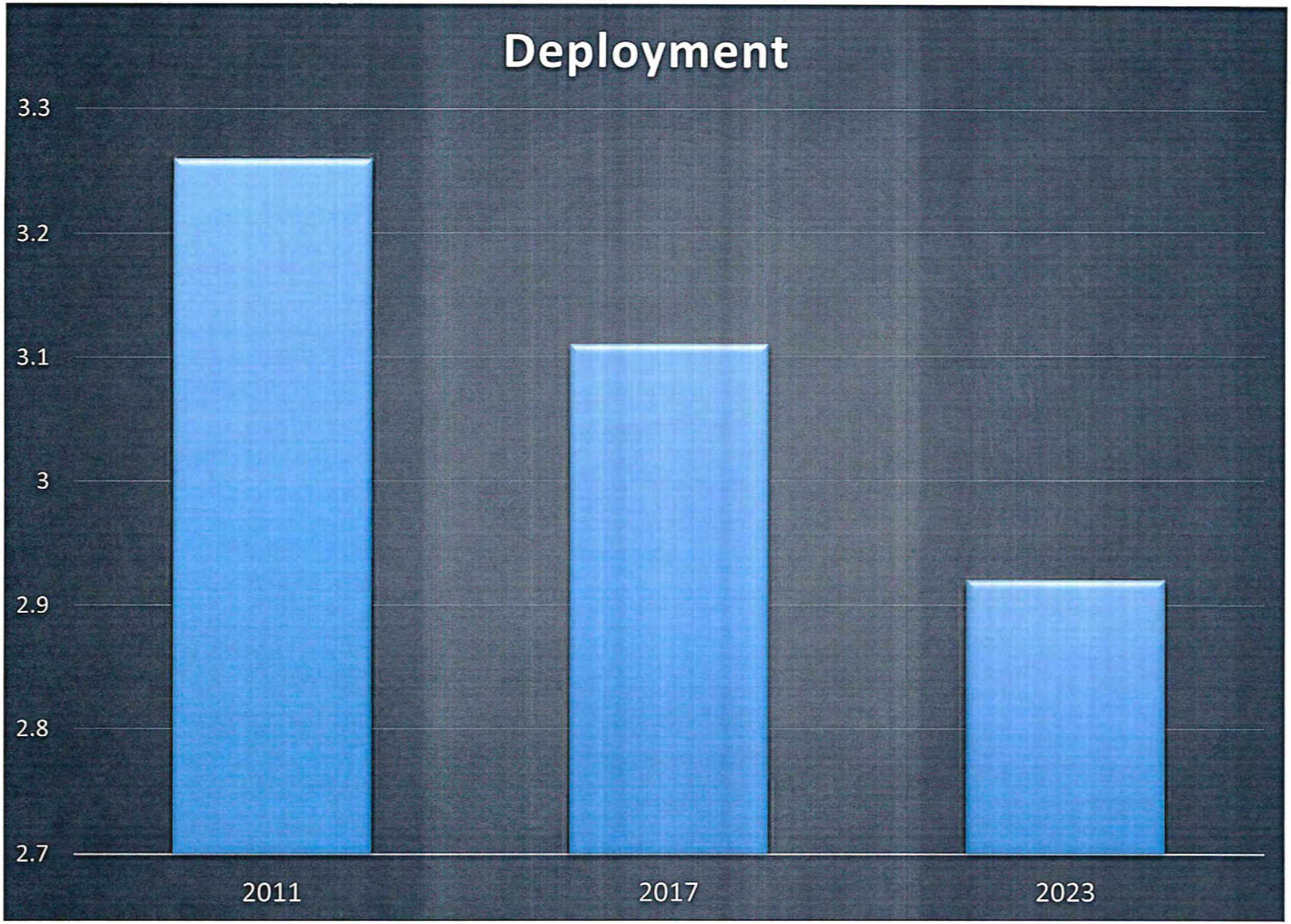
- 2023 Fire District was evaluated by ISO and received an overall score of 58.30

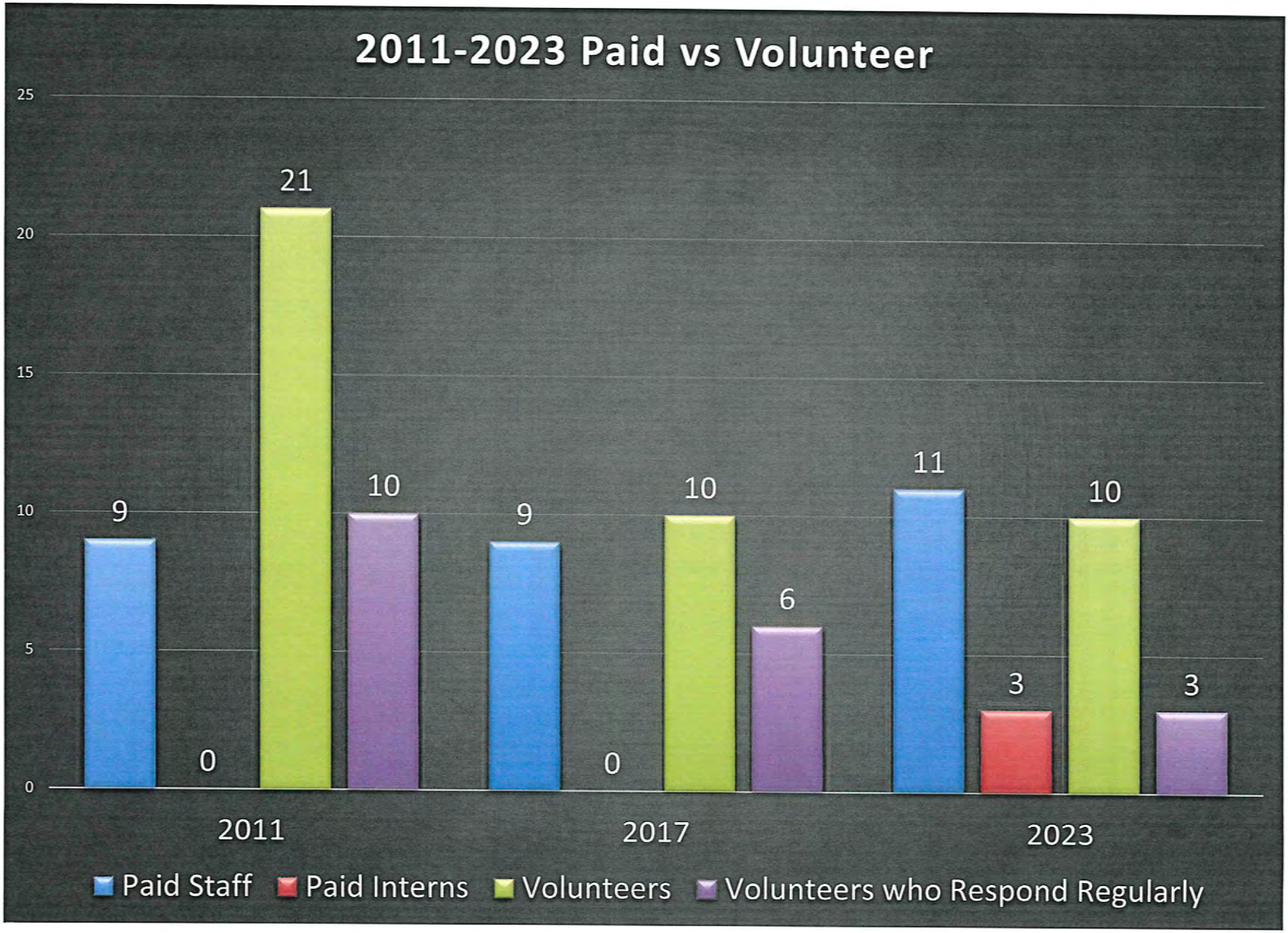
- Class 5 rating
- 50.00-59.99


Fire District Score Differance 2017-2023
21.54
22.05
2017
2023


Training
4
3.5
3
2.5
2
1.5
1
0.5
0
2011
2017
2023


Company Personnel
3.5
3
2.5
2
1.5
1
0.5
0
2011
2017
2023


Deployment
3.3
3.2
3.1
3
2.9
2.8
2.7
2011
2017
2023


2011-2023 Paid vs Volunteer
25
20
15
10
5
0
9
0
21
10
9
0
10
6
11
3
10
3
2011
2017
2023
Paid Staff
Paid Interns
Volunteers
Volunteers who Respond Regularly

FITCH

& ASSOCIATES

CONSULTANT REPORT

GALLATIN COUNTY, MT

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Table of Contents

EXECUTIVE SUMMARY

Gallatin County has requested a comprehensive study of its current Emergency Medical Services (EMS) system to identify future demand, the needed resources to meet this demand, and sustainable models to accomplish this cost-effectively across the county over 5, 10, 15, and 20 years.

To that end, FITCH & Associates LLC (*FITCH*) evaluated whether the current system and its processes are by generally accepted standards used by comparable EMS systems in similar communities as well as our firm's 40 years of experience.

The study's outcome is to provide Gallatin County with an evaluation of the current EMS system in place, projected demand, efficiency, and financial implications for the system's sustainability. Additionally, *FITCH* will recommend improvements to Gallatin County to ensure the EMS system's long-term success, viability, fiscal responsibility, and sustainability. *FITCH* also will evaluate the current EMS system's performance, utilization, resource allocation related to current providers, and any recommended alternative future models.

The goals of the project include:

- Complete a comprehensive assessment and review of the current EMS system, along with options for improving performance, continued sustainability, and viability.
- Model future 911 emergency medical service load.
- Model future inter-facility ambulance transfer load.
- Provide recommended approaches for meeting future system demands for both 911-initiated emergency medical services and inter-facility transfers that are sustainable with the economic factors of the community.
- Recommend appropriate resource configuration (i.e., level of care, resource deployment methods) and resource allocation for standardized county-wide coverage.
- Identify needed support resources for identified recommendations, such as dispatch functions, CAD changes, AVL, support personnel, etc.

- Recognize existing service providers and how they integrate with the provided recommendations.
- Obtain an accurate understanding of all partners current services and future vision through one-on-one discussions with ambulance service providers (air and ground), fire departments, search and rescue, ski patrols, dispatch centers, medical facilities, and other system users.
- Facilitate group dialog sessions to hear user agencies' and community policymakers' ideas and concerns.
- Present findings to the working group, County Commission, and community.

KEY FINDINGS

LACK OF SYSTEMATIC OPERATIONAL PLAN WITH EMS PARTNERS

EMS partners are operating independently and without coordination, indicating that the design of the EMS system needs to evolve to sustain the service. Additionally, the report highlights that the need for an oversight body or unified partnership creates challenges in delivering equitable county-wide services. Creation of a system wide and comprehensive EMS system plan will only aid in the provision of EMS services to those who live or visit Gallatin County.

FIRE SERVICE EXPANSION IS IMPACTING PRIVATE AGENCY

Increased staffing in fire agencies is reducing the transportation volume and revenue of private agencies. Fire services are receiving tax subsidies for their staffing, while private agencies are not receiving subsidies for their readiness. Fire agencies have chosen to begin to provide EMS services either by need or want and with this the private EMS agency is being impacted negatively due to the reduction of transport volume, which may have a continued downstream impact in the future.

HOSPITAL CONSIDERING OWN TRANSPORT UNIT

Bozeman Health vocalized they are evaluating plans to invest in their own transport service to address the rising challenges. This investment is expected to significantly reduce the revenues of all agencies, particularly the private agency. Although Bozeman Health's goal is help reduce throughput issues and patient flow within their health system, the EMS system has relied on providing this service as it generates revenue for the system. There is a positive side to this in that with Bozeman Health now covering most of their own transports, this will free up other EMS units to be able to provide more coverage to the County for 911 calls for service.

SYSTEM FUNDING NEEDED FOR SUSTAINING SERVICES

The system needs to provide additional funding to improve staffing and EMS response in the future. Increasing the funding will reduce the need for cross-staffing units, increasing the

Effective Fire Force. This will ensure that personnel are kept from fire units and can be available for emergency response. While the use of cross-trained personnel is beneficial, it can have an adverse effect on the overall system due to depletion of fire service personnel.

NEED FOR SYSTEMATIC OVERHAUL AND COLLABORATION

A governance model for deploying units in the county is needed to improve operational efficiencies and funding opportunities. A single entity should create a governance model to streamline the process and drive better outcomes. Creating systemized oversight and collaboration will bolster the provision of EMS services throughout the entire County no matter what option(s) the County chooses to employ for EMS coverage into the future.

OUTDATED AGREEMENT WITH AMERICAN MEDICAL RESPONSE (AMR)

The city of Bozeman supports American Medical Response (AMR) by issuing a business license, while no agreement or contract is required for areas outside Bozeman. This license establishes some basic performance criteria for only the city of Bozeman. Parties must collaborate to establish baseline requirements considering performance, staffing, and cost. Should the County choose to remain with the current system design, at a minimum a contractual agreement must be negotiated to ensure equitable EMS service to all areas of the County that AMR would cover, which may come at a cost.

RURAL EMS SYSTEM STRUGGLE IN GALLATIN COUNTY

Remote areas experience low call volume and lengthy response times, which creates concerns for future requirements due to staffing shortages. Additionally, these areas have little to no mutual aid or backup coverage, making it necessary to consider an alternative system to address significant geographic challenges. There must be a safety net in place to ensure that disparate areas can handle most of the incidents themselves due to the lengthy response times from other geographic areas. This coupled with the steady decline of volunteerism creates an almost perfect storm that has the potential to significantly impact the already struggling rural health care system in the County.

DISPATCH NEEDS TO EXPAND SERVICES AND CAPABILITIES

There is a need to create a unified dispatch system to manage all resources, which would involve implementing software to deploy units based on GPS and integrating Computer Aided Dispatch (CAD) with other surrounding CAD systems and Electronic Patient Care Report (EPCR) programs. Additionally, GPS tracking of all units staffed should be monitored and tracked in Gallatin County 911Dispatch. Lastly, a dedicated dispatcher for FIRE/EMS is crucial for efficient resource management as currently there is not a dedicated dispatcher for this function.

METHODOLOGY

FITCH utilized multiple resources and methods to collect data, analyze historical call volume, and analyze organizational data provided by agencies serving Gallatin County. At the start of the consultancy, they established every other week meetings and collected data counts from the Gallatin County 911 Dispatch Center's computer-aided dispatch (CAD) system. Almost all the County's EMS agencies participated in various stages throughout the project.

Before the site visit, *FITCH* collected, processed, and validated data for EMS responses. They worked to obtain data to complete the Information Data Request (IDR) from each EMS agency. However, *FITCH* had to obtain data from four different sources. Data from Hebgen Basin Fire District in West Yellowstone was provided after the data report was completed, to which *FITCH* completed a second data report to update with their information.

Based on the limited information provided, *FITCH* verified information with the Project Steering Committee to move the project forward. Due to the County's age and data reporting challenges, the County had to partner with its Computer-Aided Dispatch (CAD) software vendor to extract data, which caused a significant delay in the project. *FITCH* worked with the County to adjust timelines accordingly.

Audits of all data files were first conducted to reduce duplication of events and to identify anomalies in the base data that would impact analysis. After eliminating duplicates and incidents that fell outside the subject service areas, we selected a date range for analysis.

The client provided data from several agencies in a variety of formats and with differing naming conventions for the data elements. Some datasets contained geographic coordinates, some only provided addresses. Datasets that contained geographic coordinates were modified to latitude/longitude format. Datasets that did not contain coordinates were geocoded using an online service known as HERE.[1]

Once the datasets were geocoded, we created a merge process to produce a consolidated set of data elements and (to the best of our ability) eliminate duplicate calls. Since we could not be sure that the coordinates and times provided by the various CAD systems and processes would

[1] https://developer.here.com/, accessed July 2022.

be a reliable determinant of "same location, same time," we established a filter rule that marked any call occurring within 50 meters and within 30 minutes of another incident as a potential duplicate. When we identified incidents that were potential duplicates, we selected the incident record that contained the most amount of data as the official incident record (typically, more time fields had been completed). This allowed *FITCH* to create a single data set for system evaluation and provide the output for consideration in the final report.

The report focused explicitly on call volume, and *FITCH* treated each event as an individual call for service without considering the number of units responding. *FITCH* first conducted audits of the data files to reduce duplication of events and identify anomalies in the base data that would impact analysis. *FITCH* made no changes or modifications to the data values in the cleanup process, only adjusting spelling and abbreviation differences in the names of towns and jurisdictions where necessary to provide the most accurate counts aggregated by geographic region.

FITCH assessed the response time performance of EMS agencies in Gallatin County, including those outside the County but with primary coverage areas within it. They modeled travel times of 10-minute, 15-minute, and 20-minute intervals. After determining the response time performance, *FITCH* strategically matched supply with demand and ensured that the appropriate locations were utilized for ambulance deployment to meet a prescribed response objective. The primary aim was to ensure that geographical deployment and demand were staffed appropriately with the correct level of resources.

Over the project timeline, *FITCH* and Gallatin County representatives met onsite and virtually to discuss findings and options for results-based solutions.

EVALUATION OF CURRENT SERVICE AREA

Service Area Overview and System Description

Gallatin County has an estimated 2021 population of 122,713 and spans 2,631 square miles. Bozeman is the largest urban area with 53,293 residents, while Belgrade has 10,460 residents. Other smaller towns, such as West Yellowstone, Three Forks, and Manhattan, have populations of approximately 1,353, 1,691, and 2,128, respectively. The unincorporated areas of Big Sky and Four Corners also show significant population densities, with 2,767 and 3,406 residents, respectively.

Gallatin County's EMS system is complex, with 12 ground transport and 14 non-transport EMS services. It should be noted that there are more licensed EMS agencies in the county than performing service in the county.

AMR is the primary private EMS provider but faces challenges such as high staff turnover and difficulties meeting response time standards. The county's fire departments are significant contributors, with varying levels of EMS involvement. AMR operates in Bozeman under a city license and supports various organizations, including Bozeman Health, Bridger Bowl, and previously the Yellowstone Club. Fire departments have expanded their services throughout Gallatin County.

Technological challenges and an outdated city ordinance add to the complexity. The EMS workforce is shifting, and Bozeman Health is considering developing its own EMS service to handle IFT/NET transports. These factors highlight the necessity for strategic planning and collaboration among EMS partners to ensure efficient and effective service delivery.

Gallatin County Agencies

The below tables reflect all licensed and certified agencies within Gallatin County that can provide EMS services in some fashion. Figures 1a and 1b are divided into EMS agencies that provide transport, whether emergent 911 or non-emergent, and the second figure depicts those agencies that provide first

response services to a specific response area within Gallatin County. It should be noted that some agencies do cross county boundaries due to the geographic diversity within the region.

Figure 1a: Gallatin County 911 EMS agencies (Ground Ambulance Transport)

SERVICE NAME[2]	CLASSIFICATION	SERVICE LEVEL	ORGANIZATION TYPE	SERVICE STATUS
AMERICAN MEDICAL RESPONSE (BOZEMAN)	Ground Ambulance	ALS	Private, Non-Hospital	Non-Volunteer
BIG SKY FIRE DEPARTMENT	Ground Ambulance	ALS	Fire Department	Mixed
CENTRAL VALLEY FIRE DISTRICT	Ground Ambulance	ALS	Fire Department	Mixed
CITY OF BOZEMAN FIRE DEPT	Ground Ambulance	ALS	Fire Department	Non-Volunteer
CLARKSTON FIRE SERVICE AREA	Ground Ambulance	BLS w/ALS Authorization	Fire Department	Volunteer
HEBGEN BASIN FIRE DISTRICT	Ground Ambulance	BLS w/ALS Authorization	Fire Department	Mixed
HYALITE RURAL FIRE DISTRICT	Ground Ambulance	BLS w/ALS Authorization	Fire Department	Mixed
THREE FORKS AREA AMBULANCE SERVICE	Ground Ambulance	BLS w/ALS Authorization	Governmental, Non-Fire	Volunteer
YELLOWSTONE MOUNTAIN CLUB RURAL FIRE DISTRICT	Ground Ambulance	BLS w/ALS Authorization	Fire Department	Non-Volunteer

[2] https://dphhs.mt.gov/assets/publichealth/EMSTS/EMS/LicensedMontanaEMSAgencies.pdf

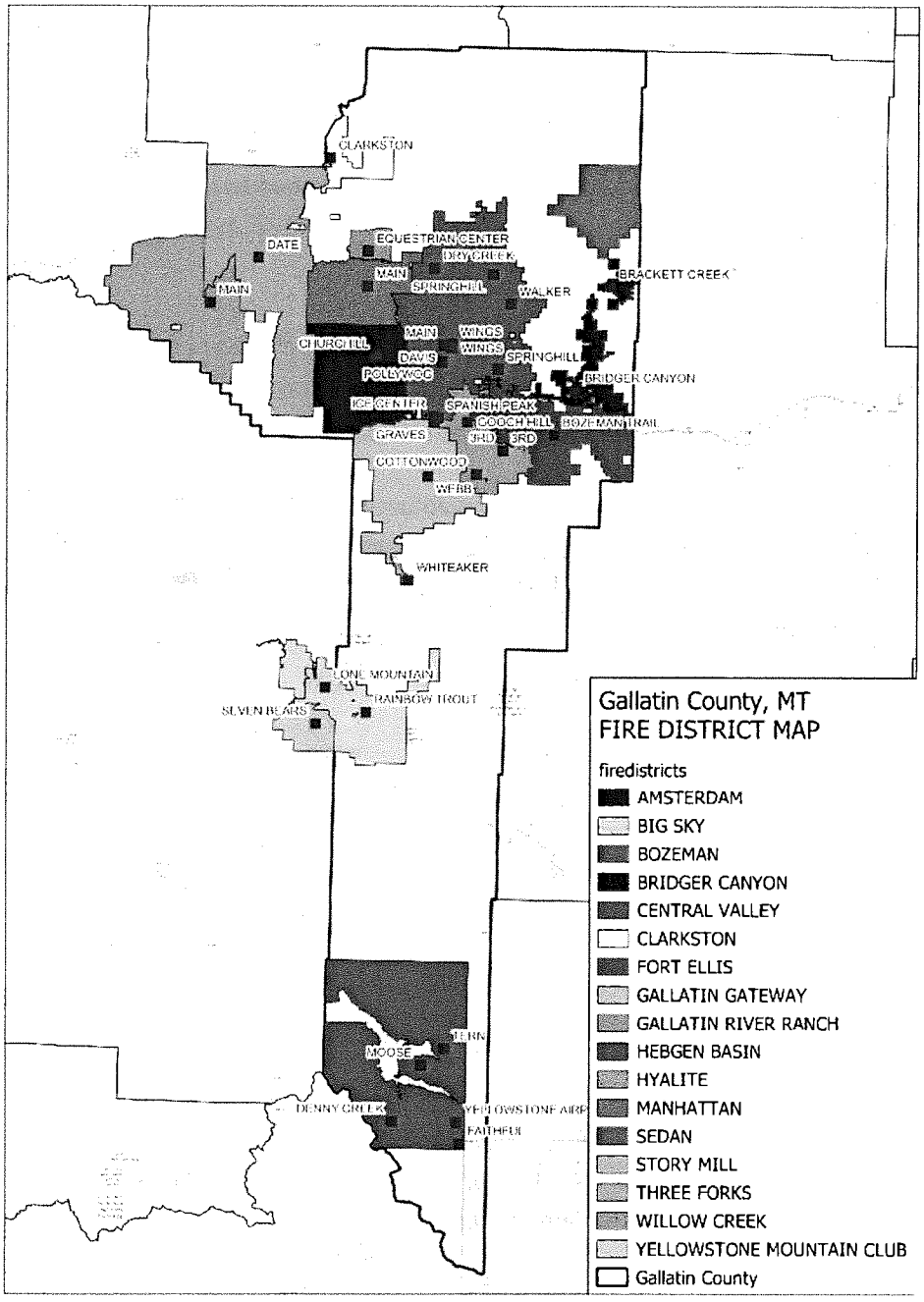
Figure 1b: Gallatin County EMS agencies (Non-Transporting[3])

SERVICE NAME	CLASSIFICATION	SERVICE LEVEL	ORGANIZATION TYPE	SERVICE STATUS
AMSTERDAM VOLUNTEER FIRE COMPANY	Non-Transporting	BLS	Fire Department	Volunteer
BIG SKY SKI PATROL	Non-Transporting	BLS w/ALS Authorization	Private, Non-Hospital	Mixed
BRIDGER BOWL SKI PATROL	Non-Transporting	BLS w/ALS Authorization	Community, Non-Profit	Non-Volunteer
BRIDGER CANYON VOLUNTEER FIRE DEPARTMENT	Non-Transporting	BLS w/ALS Authorization	Fire Department	Volunteer
FORT ELLIS FIRE SERVICE AREA	Non-Transporting	BLS	Fire Department	Volunteer
GALLATIN COUNTY SHERIFF SEARCH AND RESCUE	Non-Transporting	BLS w/ALS Authorization	Governmental, Non-Fire	Volunteer
GALLATIN GATEWAY RURAL FIRE DEPARTMENT	Non-Transporting	BLS w/ALS Authorization	Fire Department	Volunteer
GALLATIN RIVER RANCH FIRE RESCUE	Non-Transporting	BLS w/ALS Authorization	Fire Department	Volunteer
MAGRIS TALC	Non-Transporting	BLS	Private, Non-Hospital	Volunteer
MANHATTAN VOLUNTEER FIRE DEPARTMENT	Non-Transporting	BLS w/ALS Authorization	Fire Department	Volunteer
SPANISH PEAKS MOUNTAIN CLUB NTU	Non-Transporting	BLS w/ALS Authorization	Private, Non-Hospital	Non-Volunteer
THREE FORKS FIRE DEPARTMENT	Non-Transporting	BLS	Fire Department	Volunteer
WILLOW CREEK RURAL FIRE DEPARTMENT	Non-Transporting	BLS w/ALS Authorization	Fire Department	Volunteer
YELLOWSTONE MOUNTAIN CLUB SKI PATROL	Non-Transporting	BLS w/ALS Authorization	Private, Non-Hospital	Non-Volunteer

Fire departments have expanded their services throughout Gallatin County to match the increasing call volume. The map in Figure 2 provides a countywide view of all the fire districts within Gallatin County.

[3] https://dphhs.mt.gov/assets/publichealth/EMSTS/EMS/LicensedMontanaEMSAgencies.pdf

Figure 2: Gallatin County Fire District map.



Community Demand for Service

FITCH evaluates service demands by reviewing the population census and current demand for service. This helps estimate future system requests for service.

Gallatin County spans 2,631 sq. miles and has a diverse geographic and demographic landscape. In 2022, community requests for service across all program areas Including 911 and NET/IFT totaled 12,050, averaging 33.0 daily calls.

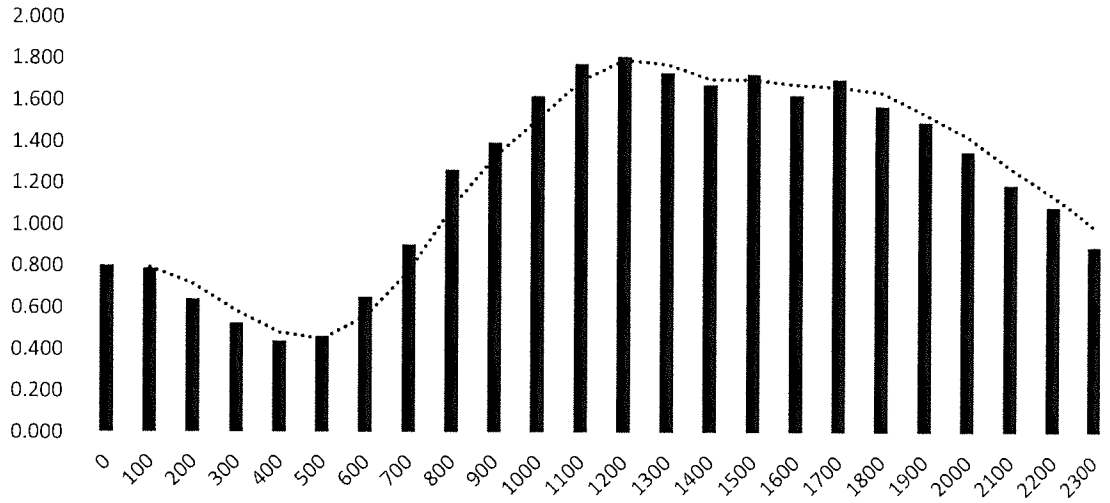
Figure 3 shows aggregate call volume by day of week for the timeframe of 2021 to 2023. EMS agencies were dispatched to an average of 27.27 incidents per day in 2021 compared to an average of 32.14 incidents per day in 2024 which shows a 15% increase in span of 3 years.

Figure 3: Aggregate Average Total Volume by Day of Week (2021-2023).

		SUN	MON	TUE	WED	THU	FRI	SAT
Aggregate	2021							
Total		1376	1389	1435	1381	1445	1466	1457
Avg/Day		26.5	26.7	27.6	26.6	27.8	27.7	28.0
Aggregate	2022							
Total		1397	1506	1468	1476	1441	1665	1671
Avg/Day		26.9	29.0	28.2	28.4	27.7	32.0	31.5
Aggregate	2023							
Total		1052	1073	1076	1119	1146	1219	1174
Avg/Day		29.8	30.4	30.6	31.7	32.5	35.7	34.3
Aggregate	21-23							
Total		3855	3997	4011	4010	4077	4386	4338
Avg/Day		27.5	28.5	28.6	28.6	29.0	31.3	30.9

Figure 4 shows the average total EMS volume by hour of day, and it is noted EMS incidents were most frequent during the times of 1000 to 2000 with a significant drop noted in the overnight and early morning. This is important to note so that staffing can be matched to demand for service. The attached data reports provide additional information related to call distribution by agency, by quarter, by month, and additional parameters.

Figure 4: Aggregate Average Total Volume per Hour of Day (2021-2023).

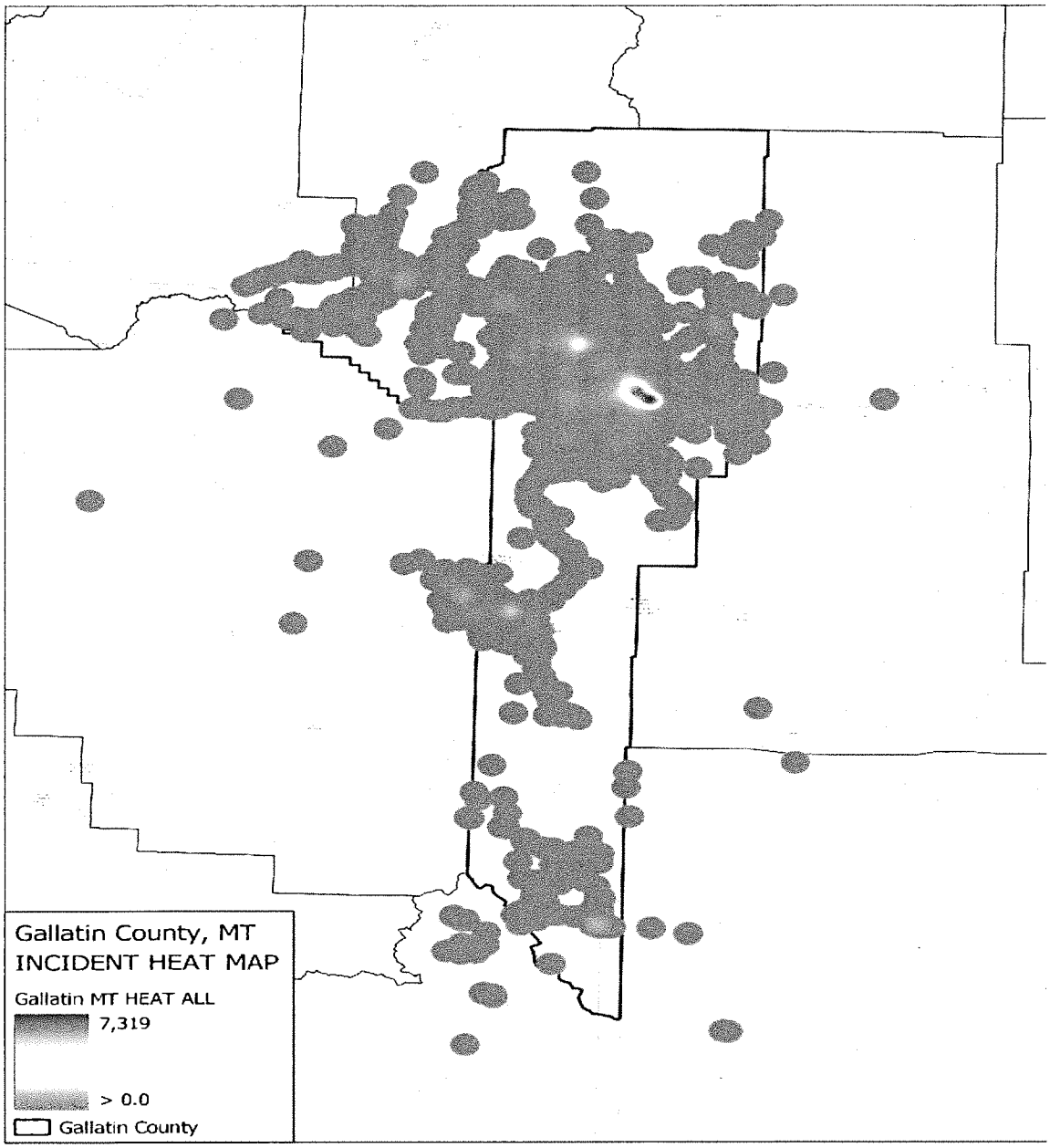


Urban/Rural Heat Map

FITCH utilized heat mapping to evaluate all emergency 911 calls for service and the current response density levels. To ensure proper unit deployment, it helped to understand where the highest level of risks or volume was required. This model allowed for informed decisions on performance levels of response.

Color coding was used to indicate various responses within the County. Figure 5 below shows that the areas in red indicate a "hot spot" of more than 7,319 responses over three years. Blue areas indicate a mostly rural response of more than one call and less than 1,286 responses over two years. Areas that are absent of color received no calls or requests for service in that year.

Figure 5: The figure shows the average number of dispatches per day, per quarter since 2021.

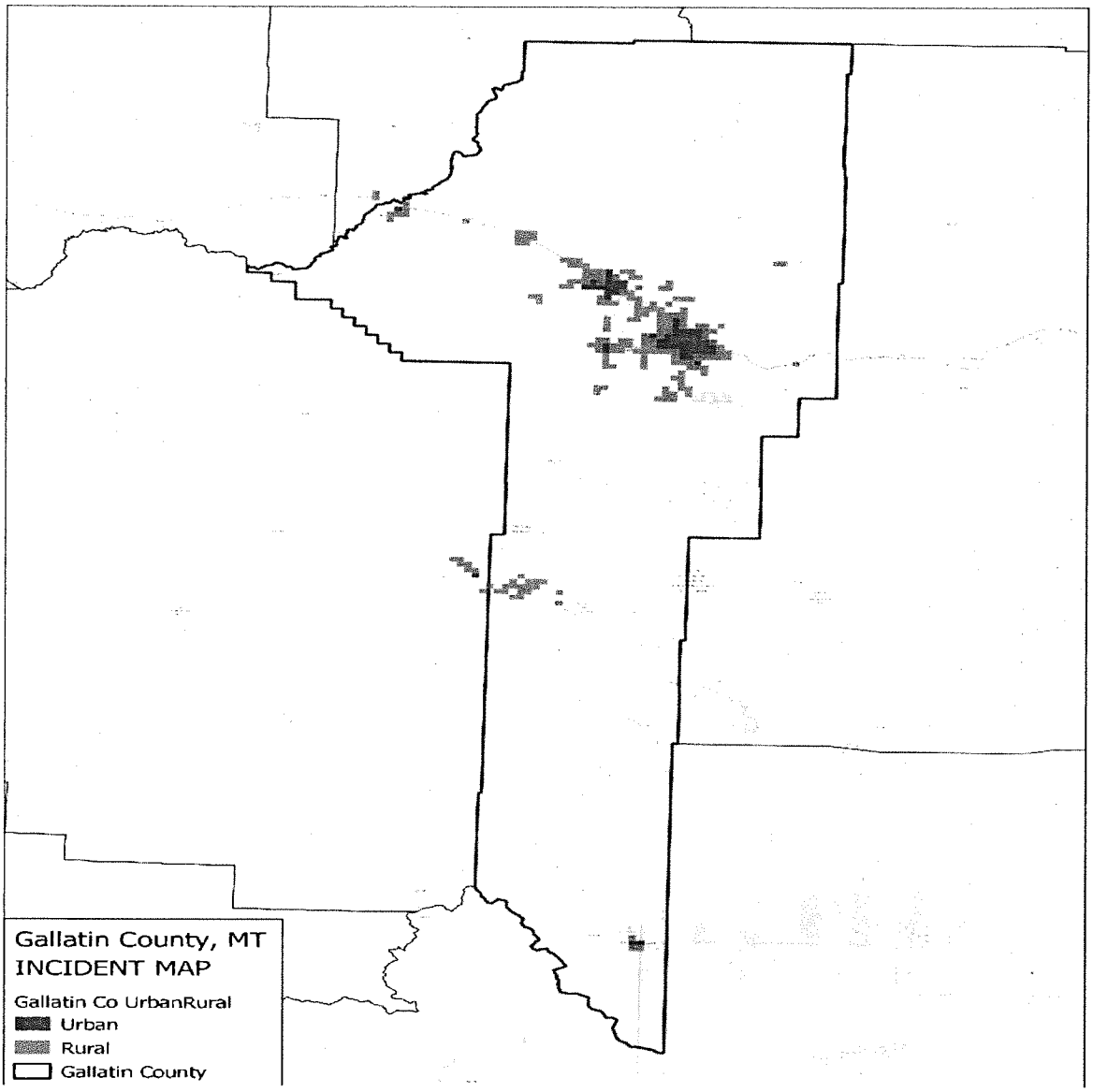


Urban/Rural Call Volume

FITCH used a commensurate risk mapping model to evaluate call activity and determine urban and rural density levels for response zones. The model considers two calls per month within the one-kilometer cell and four calls or more per month in the eight adjoining cells as urban response density (in red).

On the other hand, rural designated areas (coded in green) represent 0.25 calls within the one-kilometer cell and one call or more per month total in the eight adjoining cells. Areas not meeting these criteria are considered wilderness response density zones. Figure 6 below reflects the most accurate urban and rural call volume analysis.

Figure 6: Urban/Rural Analysis Based on Call Volume



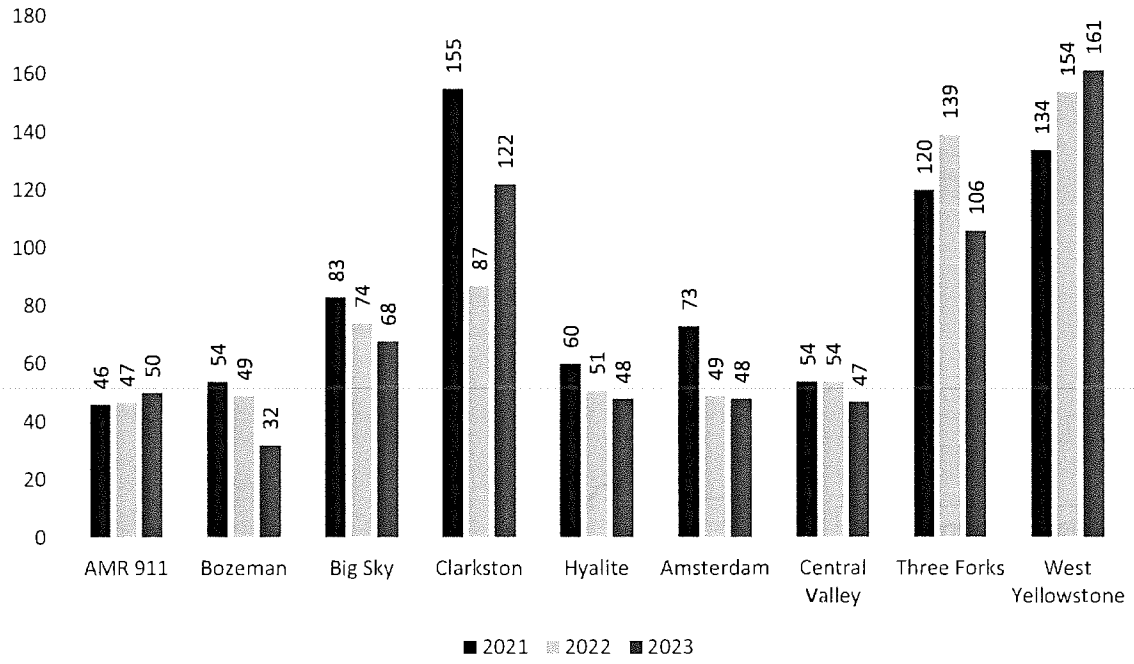
Average Total Busy Time per Call by Service and Year (minutes)

To evaluate response time information and correlate the information conveyed by agencies within Gallatin County, *FITCH* assessed the total busy time as a system for each agency based on the gathered data.

The table below shows that the total busy time in minutes varies by agency and year. Significant differences from year to year could result from changes in call volume, weather conditions, distance traveled, and available resources in the system. Accurately understanding deployment and response times, along with the total busy time, is crucial when assessing the necessary resources and assets within the system.

Accurately understanding deployment and response times, along with the total busy time, is crucial when assessing the necessary resources and assets within the system. Figure 7 below reflects the average total busy time per call broken down by agency and year.

Figure 7: Average Total Busy Time per Call by Service and Year (Minutes)



SYSTEM PERFORMANCE, RESOURCE ALLOCATION AND UTILIZATION

STAFFING TO DEMAND ANALYSIS

To create response times that will better serve Gallatin County, *FITCH* created a community baseline response for which all EMS agencies should be held accountable. The response times are based on standards from the 9th edition of the Commission on Fire Accreditation International (CFAI) guidelines and a review of historical risk. CFAI guides emergency service agencies regarding performance measurements and establishes a benchmark for evaluating response times. The standards are determined in two parts: 1) determining the population density zones in the City/Township and 2) determining the right level of response times for the community.

The components of response that are typically measured are as follows:

- **Dispatch Time** is the time interval from the requestor's initial call until the first dispatch notification for a unit to respond.
- **Turnout Time** is the time interval from when response personnel receive the dispatch notification until a staffed ambulance responds.
- **Travel Time** is the time interval from the time the staffed ambulance initiates response until it arrives at the scene of the incident.
- **Dispatch to First Unit Arrival** is a cumulative time for the time components of Turnout and Travel times. This time is controlled only by the responding resources and not the Communications Center.

- **Hello-to-Hello Time** is the cumulative time for the components above represents a call received in the Communications Center until response personnel arrive on the scene with the patient. This is the most important time interval from the caller/patient's perspective.

- **Time-on-Task** is the interval from the initial dispatch of a response to the time the unit becomes available for another response. A unit may become available after transport to the hospital, treatment, and release on-scene, canceled, etc.

An EMS agency's response time begins when it receives a request for a response from the Gallatin County 911 Center, where both a full address and call type have been determined. Then, the "clock begins" for the EMS agency. The clock stops when the unit arrives on the scene of an incident or is in staging awaiting another public safety official due to an unsafe scene.

Figure 8 below indicates the CFAI response time baseline times for alarm handling, turnout, and travel time.

Figure 8: CFAI Aggregate Response Time

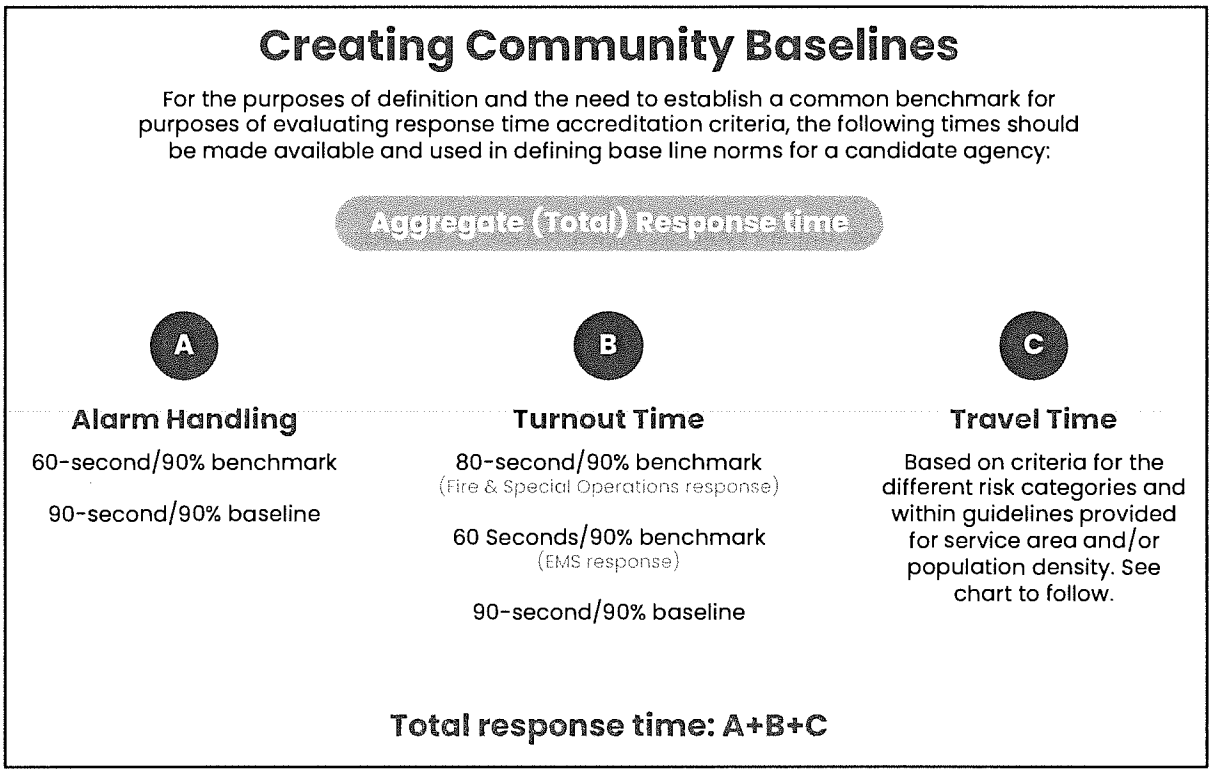


Figure 9: CFAI Aggregate Response Time Baselines

Metropolitan – an incorporated or unincorporated area with a population of over 200,000 people and/or a population density of over 3,000 people per square mile.			
Metropolitan	**1st Unit**	**2nd Unit**	**Effective Response Force**
Benchmark	4 minutes	8 minutes	8 minutes
Baseline	5:12 minutes	10:24 minutes	10:24 minutes
Urban – an incorporated or unincorporated area with a population of over 30,000 people and/or a population density of over 2,000 people per square mile.			
Urban	**1st Unit**	**2nd Unit**	**Effective Response Force**
Benchmark	4 minutes	8 minutes	8 minutes
Baseline	5:12 minutes	10:24 minutes	10:24 minutes
Suburban – an incorporated or unincorporated area with a population of 10,000 to 29,999 and/or any area with a population density of 1,000 to 2,000 people per square mile.			
Suburban	**1st Unit**	**2nd Unit**	**Effective Response Force**
Benchmark	4 minutes	8 minutes	10 minutes
Baseline	5:12 minutes	10:24 minutes	13 minutes
Rural – an incorporated or unincorporated area with a total population of fewer than 10,000 people or with a population density of fewer than 1,000 people per square mile.			
Rural	**1st Unit**	**2nd Unit**	**Effective Response Force**
Benchmark	10 minutes	14 minutes	14 minutes
Baseline	13 minutes	18:12 minutes	18:12 minutes
Wilderness – any rural area not readily accessible by public or private maintained road. Due to the large disparity between communities that protect wilderness areas, recommended travel times are not provided for this level of service.			

The EMS agency will be responsible for the Turnout and Travel times. Turnout times are based on the baseline performance of 90 seconds, 90% of the time. For travel time, the methodology in Figure 9 above is used. The figure below shows the breakdown of the aggregate response times by program area as measured for Gallatin County.

After reviewing the commensurate risk mapping and the CFAI standards, *FITCH* determined that the majority of Gallatin County is classified as Rural or Wilderness. In contrast, the remaining cities of Bozeman and Belgrade are classified as follows:

- Bozeman – Metropolitan (6,221 people per square mile)
- Belgrade – Urban (2,776 people per square mile)

This information helps to establish appropriate response time expectations for each area of the County.

FITCH would normally evaluate response intervals and metrics specific to EMS for the County but with the geographic diversity and many other complicating factors, such as longer travel times, weather, and varying turnout times from agency to agency, it proved that analyzing overall response times would not be beneficial for this study. *FITCH* recommends that the incorporated areas of the County, like the cities

of Bozeman and Belgrade evaluate their turnout time and determine methods to improve on these times. In the more rural areas, unless there is an increase in service availability, EMS response times will continue to be elongated due to the sheer factor of distance to travel.

Drive Time & Staffing Analysis for Each Locality (10, 15 & 20 minutes)

FITCH relies on geographic coverage and normalizes hourly demand to determine the total number of staffed ambulances required per hour to service the 911 emergency volume. The figures below indicate the staffing to demand for all EMS units in Gallatin County. Reviewing each hour's average demand and normalizing for the estimated time on task for the county, the figures read left to right, Sunday to Saturday.

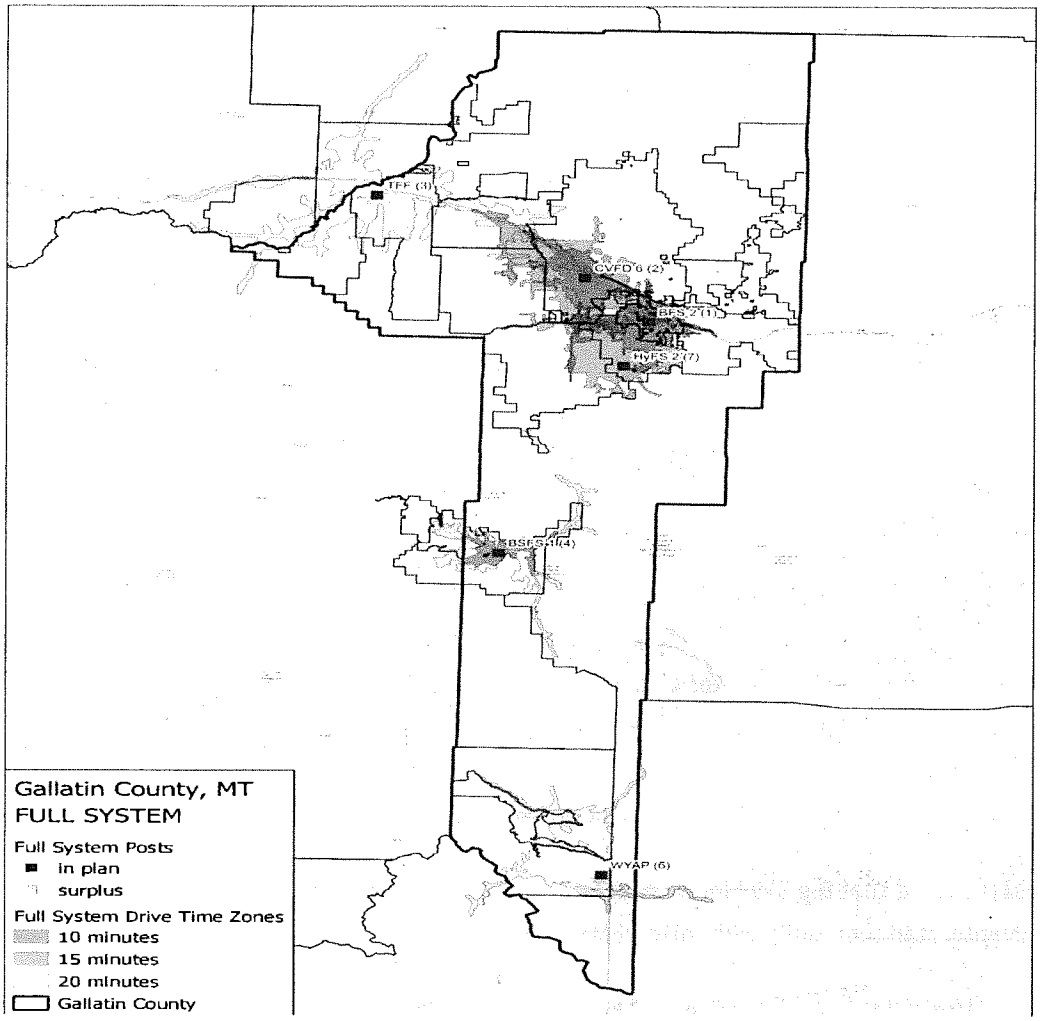
We determined the volume using the most recent two years, and the light blue area indicates how many units are required per the marginal resources needed to capture the prescribed geographic response time. The bar lines represent the average hourly demand and change colors depending on whether the current staffing line (red) is above or below the dark blue geographic plus the average demand line.

If the staffing line is above the dark blue line and there is "space" between the lines, that indicates capacity within the system. On the other hand, if the staffing line falls below the geographic plus demand line (dark blue), that shows there are not enough resources during that hour, and the bar lines will change colors.

The map in Figure 10 below reflects 10-minute drive times from each station in green, 15-minute drive times in orange, and 20-minute drive times in yellow. Stations highlighted in yellow being surplus or may not be needed in the drive analysis. The goal was to create an equitable level of service for the community based on geographic and population factors. The areas that are not colored would not receive an ambulance within 20 minutes due to geography.

The goal of the geographic unit placement is to capture 90% of the historical call volume with the least number of units. However, as the number of units increases, the total capture of calls decreases, clearly depicted in the units ranked in the 5th, 6th, and 7th spot to capture 90%. In *FITCH*'s review, it would take seven units to capture more than 90% of the historical volume, with varying drive times based on geography.

Figure 10 – Current EMS Deployment 10, 15, & 20-Minute Drive Time



Rank	Post Number	Drive Time	Class	Post Capture	Total Capture	Percent Capture
1	BFS 2	10	U	28121	28121	58.59%
2	CVFD 6	10	U	7068	35189	73.31%
3	TFF	20	U	2697	37886	78.93%
4	BSFS 1	10	U	2182	40068	83.48%
5	BSFS 1	20	U	1603	41671	86.82%
6	WYAP	20	U	1483	43154	89.91%
7	HyFS 2	15	U	996	44150	91.98%
8	CVFD 6	15	X	882	45032	93.82%

In Figure 11 below, staffing-to-demand models account for all available staffed units in the County with no delineation between volunteer, cross-trained/staffed with firefighting personnel, or fully staffed EMS-only units. However, these units are not always staffed as they may be volunteer agencies or crossed staffed units.[4] This model only includes emergency 911 call activity. The current staffing accounts for eight units 24 hours a day, seven days per week. With this model, staffing exceeds demand at the 10-minute drive time in urban settings and 20-minute drive time in rural settings.

Figure 11: All Units Staffed (10 Urban / 20 Rural Minute Drive Time)

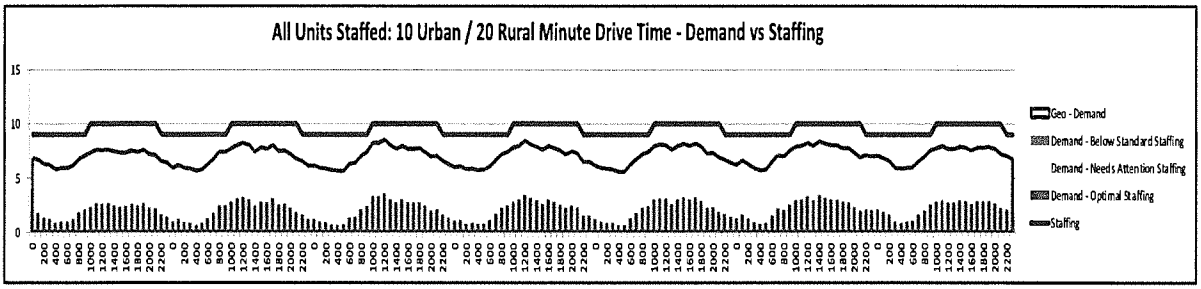
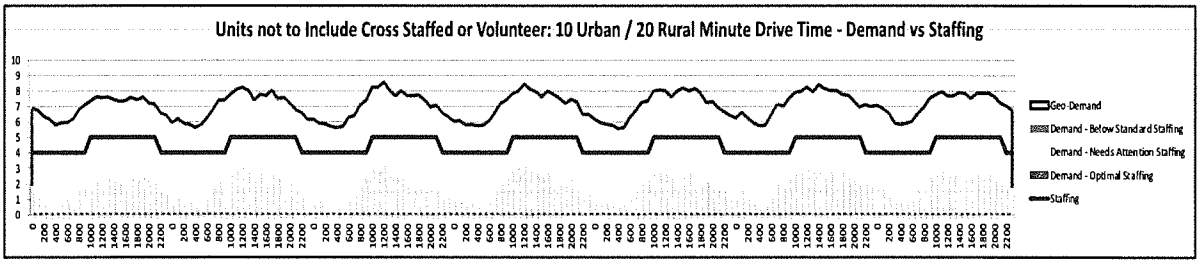


Figure 12 below shows the same staffing-to-demand model, where there is no utilization of volunteer and cross-trained/staffed firefighter EMS units. In this model, these EMS-only staffed units are staffed daily. With this model, geographical demand and staffing do not meet the system's needs at the 10-minute urban and 20-minute rural drive times. This model only includes emergency 911 call activity. The current staffing accounts for three units 24 hours a day, seven days per week.

It should be noted that Big Sky Fire is credited with having one fully staffed EMS-only unit, even though they currently staff their units with mixed EMS-only and cross-trained personnel.

Figure 12: Units Not to Include Cross Staffed or Volunteer (10 Urban / 20 Rural Minute Drive Time)

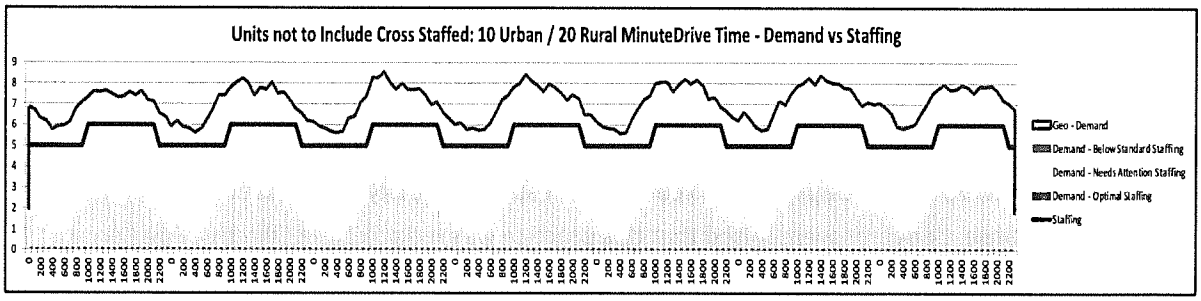


[4] Cross staffed unit is when personnel are assigned to fire apparatus and are utilized to staff an EMS unit, to make a full crew, when there is an EMS response and there is no active Fire response.

In Figure 13, this staffing-to-demand model is like the above model, except it adds back the volunteer EMS-only units and still removes the cross-trained/staffed EMS units. This model only includes emergency 911 call activity. In this model, staffing needs to meet the demand to provide the same coverage 24 hours a day, seven days per week.

The same factor applies to the Big Sky Fire Department as in the previous modeling.

Figure 13: Units Not to Include Cross Staffed (10 Urban / 20 Rural Minute Drive Time)



In short, there are enough physical units in Gallatin County to support the EMS system, however staffing levels are a factor to both create an equitable level of service and not reduce the Effective Fire Force.

FINANCIAL REVIEW

FITCH completed an estimated independent costing analysis of the models below, with four sworn and three civilian models. The goal of this review was to understand the value of the system, based on a future design to provide a baseline and equitable level of service. Comparisons of the models were constructed separately, showing the impact to the system. This evaluation was based on 911 volume only and not IFT/NET transports.

During both virtual and onsite interviews and meetings the fire departments described how individuals would be reallocated from fire apparatus to cover EMS response activity as they are "cross-staffing" units to ensure response. Concerns were raised that this practice was reducing the Effective Fire Force.

FITCH was asked to prepare and model an all-ALS response model and a BLS transport model with ALS chase car response. Further attention was paid to the cost of covering areas that may be handled with volunteers in its current form. Lastly, each model was separated with sworn personnel and civilian personnel operating the system. This would allow for a range to be determined for costing purposes. *FITCH* understands there may be other models, but it needed to understand the cost burden the system would bear depending on the policy decision.

To determine the cost impacts for each model, *FITCH* made assumptions based on data provided through the IDR process. Revenues were estimated based on the provided payor and transport information from AMR, which allowed *FITCH* to estimate revenue per transport. To determine expenses, *FITCH* obtained salary and fringe costing for sworn personnel based on current agency information as well as obtained the average cost per hour for a private agency. Estimates were used to determine unit hour cost based on percent distribution for direct materials, overhead, and depreciation. Further evaluation would be required to refine the models. Civilian model costing has other expenses for cost associated with back-pay for costing and dispatch costs. Ultimately, *FITCH* determined a unit hour cost per resource type. This allowed *FITCH* to estimate expenses that Gallatin County would incur. Finally, *FITCH* determined the delta between the revenues and expenses, to ultimately understand the required cost burden for this service.

FITCH provided seven scenarios based on feedback from the agencies within Gallatin County. These scenarios were derived from the staffing charts and current system staffing. *FITCH* determined that if the system wanted to add ALS Chase Cars there would be an increased cost burden of $1,500,000 to -$1,700,000 annually. For a full system ALS response, the cost burden would range from $4,290,000 to

$5,000,500 annually. To bolster the current system with resources and personnel not to reduce the EFF, cost burden estimates of $4,900,000 annually would be required.

Figure 14: Estimated System Revenues and Expenses for Future Models

	Sworn Full System - All ALS Transport Units	Sworn Full System - BLS Transport Units / ALS SUV	Sworn Current Deployment: Additional Personnel to Not Decrease EFF, Nor Revenue Increase	Sworn ALS SUV Chase Car - Additional	Civilian Full System - All ALS Transport Units	Civilian Full System - BLS Transport Units / ALS SUV	Civilian ALS SUV Chase Car - Additional
Transport Volume - Estimated	9,455	9,455	0	0	9,455	9,455	0
Revenue Per Transport	$ 506.90	$ 506.90	$ 506.90	$ 506.90	$ 506.90	$ 506.90	$ 506.90
Transport Revenue	***$ 4,792,761***	***$ 4,792,761***	***$ -***	***$ -***	***$ 4,792,761***	***$ 4,792,761***	***$ -***
Fully Loaded Unit Hour Costing							
ALS Transport Unit	$ 118.29	$ 118.29	$ 118.29	$ 118.29	$ 106.45	$ 106.45	$ 106.45
BLS Transport Unit	$ 106.56	$ 106.56	$ 106.56	$ 106.56	$ 94.66	$ 94.66	$ 94.66
ALS Non-Transport SUV Unit	$ 65.00	$ 65.00	$ 65.00	$ 65.00	$ 59.11	$ 59.11	$ 59.11
Personnel Hour Costing							
Advanced Life Support	$ 48.70	$ 48.70	$ 48.70	$ 48.70	$ 45.04	$ 45.04	$ 45.04
Basic Life Support	$ 43.91	$ 43.91	$ 43.91	$ 43.91	$ 36.06	$ 36.06	$ 36.06
Unit Hours							
ALS Transport Units	9.5				9.5		
BLS Transport Units		9.5	2			9.5	
ALS Non-Transport SUV Units		3		3		3	3
ALS Transport Unit Hours	83,220	0	0	0	83,220	0	0
BLS Transport Unit Hours	0	83,220	17,520	0	0	83,220	0
ALS Non-Transport SUV Unit Hours	0	26,280	0	26,280	0	26,280	26,280
Personnel Hours							
Advanced Life Support - Units			2				
Basic Life Support - Units			6				
Advanced Life Support	0	0	17,088	0	0	0	0
Basic Life Support	0	0	51,264	0	0	0	0
Total Unit Hour Costs							
ALS Transport Unit	$ 9,843,955	$ -	$ -	$ -	$ 8,858,620	$ -	$ -
BLS Transport Unit	$ -	$ 8,868,254	$ 1,867,001	$ -	$ -	$ 7,878,013	$ -
ALS Non-Transport SUV Unit	$ -	$ 1,708,235	$ -	$ 1,708,235	$ -	$ 1,553,431	$ 1,553,431
Total Personnel Hour Cost							
Advanced Life Support	$ -	$ -	$ 832,186	$ -	$ -	$ -	$ -
Basic Life Support	$ -	$ -	$ 2,251,180	$ -	$ -	$ -	$ -
Operating Expense	***$ 9,843,955***	***$ 10,576,489***	***$ 4,950,366***	***$ 1,708,235***	***$ 8,858,620***	***$ 9,431,444***	***$ 1,553,431***
Other Expense for Civilian Model - Estimated					$ 230,000	$ 230,000	
NET Income (Subsidy)	***$ (5,051,194)***	***$ (5,783,728)***	***$ (4,950,366)***	***$ (1,708,235)***	***$ (4,295,859)***	***$ (4,868,683)***	***$ (1,553,431)***

PATHWAY FORWARD

EMS Agenda 2050

EMS Current State

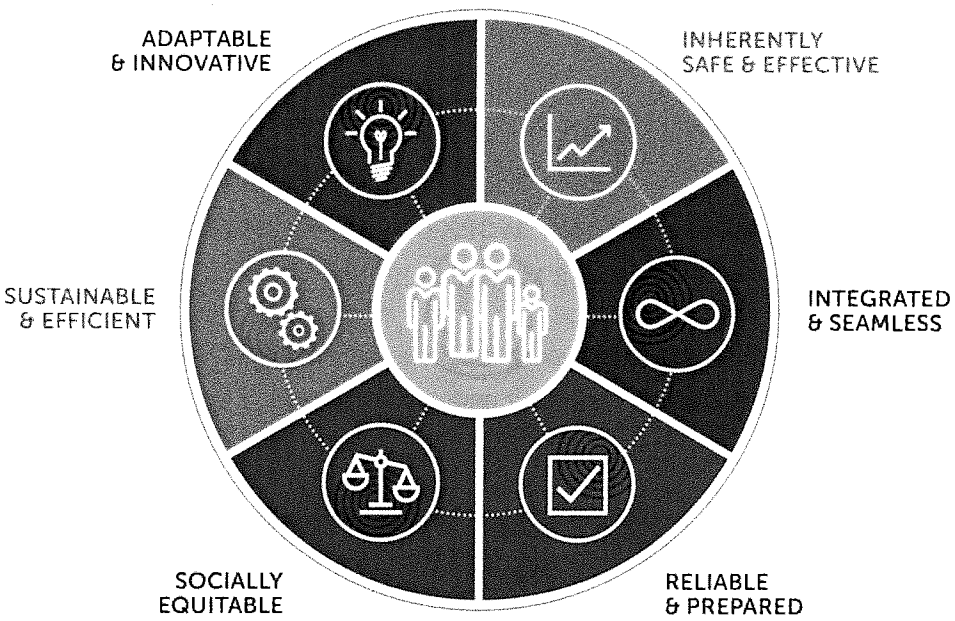
As a healthcare delivery system component, EMS addresses all possible injuries and illnesses and treats all ages. It is a component of and is also comprised of systems intended to provide care for specific diseases and population segments. Contemporary EMS systems were created to meet the immediate needs of the acutely ill and injured to provide "stabilization" and transportation. EMS generally meets these objectives in relative isolation from other health care and community resources. Reports have been published regarding public health surveillance by EMS personnel and referral to social services agencies. However, most EMS systems are disconnected from other community resources, except other public safety agencies. They are not involved in the business of ensuring follow-up by social service agencies or other community agencies/resources potentially able to intervene when patients need support. Thus, the potential positive effects of EMS, in terms of improved health for individual patients and the community, remain unrealized.

EMS Future State

EMS of the future will be a people-centered and community-based health management system that is fully integrated with the overall healthcare system. It will be able to identify and modify illness and injury risks, provide acute illness and injury care and follow-up, and contribute to the treatment of chronic conditions and community health monitoring. This new entity will be developed from redistributing existing healthcare resources and integrated with other healthcare providers and public health and public safety agencies. It will improve community health and result in more appropriate use of acute health care resources. EMS will remain the public's emergency medical safety net.

As part of that future look at EMS, the authors of the EMS Agenda 2050 gave us a framework for addressing the most critical aspects of developing a people-centered EMS system.

Figure 15. EMS Agenda 2050 Framework



EMS systems across the country are experiencing many of the same challenges as the current EMS system in Gallatin County. Meeting response time expectations for increasing call volume and managing the increasing emergency and non-emergency transports out of Bozeman Health are becoming increasingly challenging due to staffing, behavioral health challenges, urban sprawl, and the vast geographic diversity. EMS systems are breaking away from old models and embracing innovation. The EMS Agenda 2050 lays out a challenge that requires evolutionary thinking from EMS system leaders and governing bodies. We encourage stakeholders and EMS system leaders to consider different opportunities for this EMS system to evolve and guide it into its next evolutionary step.

FITCH aims to present Gallatin County with options for sustainability and longevity. *FITCH* has developed several options that can be selected singularly or in total to provide a pathway for the future of EMS in Gallatin County. Best practice systems have established a "System of Controls" to design a system where patient movement is handled in a coordinated method. These controls ensure oversight of the total EMS transportation system, irrespective of the County, any municipality, or health system ensuring transparency, consistency, timely patient movement, and adding quality and cost control measures. Ultimately, these models will ease the path of patient movement throughout the entire region, ensure a consistent response, and be fiscally responsible.

As we move forward towards a more coordinated EMS system, it is important to establish clear lines of authority. To achieve this goal, representatives from county EMS agencies will oversee and coordinate

the authority. This approach will help to ensure that the system is safe, efficient, and responsive to the needs of the community. In this pathway forward section, we will explore how this approach can be implemented and what benefits it can bring to the EMS system.

Recommendations

EMERGENCY ACTION: SIMULTANEOUSLY, WORK ON EMERGENCY OPTIONS IF THERE IS AN IMMEDIATE AND UNEXPECTED CHANGE TO THE SYSTEM.

FITCH's findings show that the system is leveraged by fire units and cross-staffing personnel, revealing inadequate EMS personnel to operate it without unduly affecting the effective fire force and other fire department related activity.

Due to the county EMS system's lack of a contractual relationship with AMR, any change to the market space will negatively impact it. Gallatin County's EMS system is extremely fragile, and the slightest change can have a far-reaching impact on coverage and service level availability.

Immediately begin collaborative conversations with all stakeholders to ensure system sustainability. This action is not clear cut and easily defined, but the sole purpose of highlighting this at the forefront of our recommendations is to ensure that immediate action and conversation is started amongst all agencies and the County to prepare for a potential "what if" scenario that may present itself unexpectedly or at an untimely point in the operationalization of any of the below recommendations.

With the potential of Bozeman Health building its own EMS transport model to manage its volume internally, there is the risk that this will deplete necessary revenue from the system. Any loss of revenue from the system will negatively impact not only the system but the taxpayers as well.

OPTION ZERO: STATUS QUO WITH MINIMAL COSTS.

In this Option, EMS agencies would continue to operate as they do currently. Response efforts will remain semi-coordinated and suboptimal. At any given time, sick or injured persons may not receive the needed or deserved emergency medical care in a clinically timely manner. There are concerns that local EMS agencies may fail due to economic pressures. Supporting the status quo through low-cost improvements and process changes is an option that can be employed easily with very few changes or actions that will provide some limited improvement to the system overall.

Actions that Gallatin County can take to further support the status quo are outlined below.

1. Uphold existing EMS response framework with local jurisdictions dictating their own standards and funding.

2. Create a county-wide EMS advisory committee to advise on EMS functions within the county and to develop a common operating plan.

3. Consider a county-wide EMS billing contract with a third-party billing company to streamline the billing process.

4. Consider a county owned EPCR System for a single data repository.

5. Align all ambulances with a singular dispatch center and provide real-time AVL data to Gallatin County 911 dispatch.

6. Establish a purchasing consortium for all medical supplies and a universal ambulance and responder vehicle specification to create economies of scale for purchasing.

7. Develop and expand a tiered dispatch approach for ALS/BLS responses.

8. Establish a system of metrics for 911 and interfacility responses to improve response times.

The below SWOT assessment in pictorial form may be helpful to see the strengths, weaknesses, opportunities, and threats all in one space.

	Helpful	Harmful>Helpful
Internal Origin	Strengths ✓ Limited at best	Weakness o Staffing does not align with demand o No economies of scale
External Origin	Opportunities ➢ Increased funding from billing company & collaborative purchasing ➢ Tiered response	Threats ▪ Continues to be uncoordinated ▪ Cost continue to grow ▪ Competition that will drive up cost and decrease volume for AMR

OPTION ONE: DETERMINE PROPER FUNDING TO SUPPORT THE EXPANSION OF ONE OR MORE AGENCIES TO PROVIDE BACKUP THROUGHOUT THE COUNTY.

In this option the primary focus is to ensure that proper funding is determined to support the expansion of one or more of the EMS agencies so that they can provide adequate backup throughout Gallatin County. Some of the challenges here are that Gallatin County currently doesn't have the necessary oversight power for all EMS operations. Establishing an oversight board or committee to ensure that EMS is managed, deployed, and funded in the same way no matter what geographic location within the County is paramount. Add to this the need for the County to have a single repository of dispatch and call data so that decisions can be made from information in one singular location.

The current lack of taxpayer funding to subsidize the system and not reduce the effective fire force is another concern that should be addressed in this option. Lastly, there are numerous competing efforts within the County related to the provision of EMS and Interfacility Transfers (IFT). These all must be adequately addressed in this option to provide a sustainable system.

Actions that Gallatin County can take to further support Option One are outlined below.

1. Gallatin County should consider developing county-wide EMS funding to support specific EMS agencies, with a contractual relationship to enhance or provide backup service.
    - This could be current agencies, private, or hospital-based ambulance services.
2. Contractually ensure agencies report financial performance annually to the County, including Billing Charge Master, Salary and Hourly Rates by position, and Expense costs.
3. The County could consider expanding the ALS SUV-only response as a backup, placing one in the southern region and one in the northern region. Thus, current units could be staffed at the BLS Level.

The below SWOT assessment in pictorial form may be helpful to see the strengths, weaknesses, opportunities, and threats all in one space.

	Helpful	Harmful>Helpful
Internal Origin	Strengths ✓ The County can begin to provide oversight for EMS ✓ Addition real-time software, enhance decision-making ✓ Financial data received to show the health of the system	Weakness o Add additional cost for software o Cost for agency purchase o Currently limited county infrastructure to manage
External Origin	Opportunities ➢ Ensure and align proper resourcing	Threats ▪ EMS agencies will not be interested in engaging and there is a loss of an EMS agency within the system

OPTION TWO: ESTABLISH AN EMS ADVISORY BOARD OR COUNCIL WITH REPRESENTATION FROM EACH COUNTY EMS AGENCY TO OVERSEE AND COORDINATE EMS.

In this option, Gallatin County would need to establish county-wide EMS system support and oversight body. The goal of option two is to fully establish a system of controls to oversee and coordinate EMS efforts and the formation of a true EMS system in Gallatin County. Without a coordinated effort there will continue to be lengthy response times, disparate coverage in areas due to geography as well as non-contractual coverage of areas outside of the municipalities that have either their own coverage or a business license with AMR.

EMS agencies with substantial local support can thrive while all agencies can seek savings from the taxpayer through systematic staffing, group purchasing, and shared overhead. The option also allows a systems approach to evolve with higher levels of coordination. At some point, agencies may understand that they are more likely to survive by working together to provide coordinated emergency services in support of community well-being.

Actions that Gallatin County can take to further support option two are outlined below.

1. Establish as centralized EMS Advisory Board or Council to provide oversight and recommendations between the EMS agencies and the County.

2. EMS agencies' representatives would oversee and coordinate EMS with the EMS Advisory Board or Council.

3. Work to create economies of scale within the EMS system currently and for the future through collaboration.

4. Agencies would work together to enhance services by creating a Common Operating Plan that is managed and controlled with proper funding, creating a check and balance for what the money is paying for and what services will be rendered.

5. Evaluate the most appropriate EMS deployment system for the County regularly based on the system's needs.

6. Work collaboratively with Bozeman Health to support EMS in the County, including IFT/NET.

The below SWOT assessment in pictorial form may be helpful to see the strengths, weaknesses, opportunities, and threats all in one space.

	Helpful	Harmful>Helpful
Internal Origin	Strengths ✓ Begins the collaborative effort in ensuring EMS oversight ✓ Reduction of cost & Increased service	Weakness o Lack of transparency and collaboration creates volatility o Agencies function autonomously
External Origin	Opportunities ➢ Improved deployment ➢ Potential reduction in cost ➢ Collaboration of EMS agencies	Threats ▪ Not managed correctly, overhead would drive up cost. ▪ Internal and organizational conflicts ▪ Lack of direction causes negative impact on the system

OPTION THREE: CREATE AN EMS DISTRICT OR JOINT POWERS AGREEMENT WITH SHARED EMS OVERSIGHT

Option three consists of the formation of an oversight body that would allow for agencies to come together for shared oversight, operations, and funding. *FITCH* considered two options: 1) an EMS District or 2) Joint Powers Agreement (JPA). It is important to ensure that combining unified and equitable service benefits with tax funding to ensure inclusive EMS service throughout the entire county. There is the risk that some of the agencies and stakeholders that have built their own independent EMS system may not want to adjust from their current level of service as well as receive oversight from a different entity.

Actions that Gallatin County can take to further support Option Three are outlined below.

1. Initiate a collective governance over all EMS agencies seeking to unify EMS under a single framework, maximizing tax dollars, and ensure equitable response.
2. Contract with an agency to provide a specified level of service.
3. Provides a single entity that can oversee all aspects of operations, clinical performance, medical direction, and staffing in a standardized manner for the County.
4. Agencies would work together to enhance services by creating a Common Operating Plan that is managed and controlled with proper funding, creating a check and balance for what the money is paying for and what services will be rendered.
5. Could provide backup services for both 911 and IFT/ (Non-Emergency Transport) NET transport volume.
6. Potential expansion to support the hospital transport, while ensuring that taxpayer funds are not subsidizing hospital service.

Frameworks such as a District have been established for other collaborations, not just for EMS, across Montana. A JPA would require lobbying to be accepted within Montana, but has been used for other shared services, within the state. Creating such a structure allows for shared oversight and resource integration among all participating EMS agencies, facilitating a more cohesive and efficient regional EMS system that would potentially be more cost effective by reducing duplication of services and overhead, while maintaining an equitable level of service.

FITCH did consider the option for creating Inter-local agreements with each agency to operate as one entity, however due to the complexities, timeliness to complete per onsite personnel and funding issues, this was not considered as a viable option.

The below SWOT assessment in pictorial form may be helpful to see the strengths, weaknesses, opportunities, and threats all in one space.

	Helpful	Harmful>Helpful
Internal Origin	Strengths ✓ Create an equitable level of service ✓ Cost savings ✓ Reduces competition ✓ Staff workload management	Weakness o County administration service expansion o Funding transfer
External Origin	Opportunities ➢ Creates collaboration and mutual agreement for service rendered ➢ Provide more equitable service ➢ Allows for input from elected officials and citizens	Threats ▪ Agencies feeling threatened ▪ All agencies do not participate ▪ Elected officials and citizens do not support

OPTION FOUR: DEVELOP A SINGLE PROVIDER SYSTEM TO PROVIDE EMS TO THE ENTIRE COUNTY.

In this option, Gallatin County would develop a single provider EMS system. The County would work collaboratively to establish an EMS Agency operated by the County with a board reporting to the County. This single entity would be designed and implemented to include any number of municipalities or fire districts within the County agreeing to formalize an effort for the provision of EMS. The aim is to establish a single entity that can oversee all aspects of operations, clinical performance, medical direction, and staffing in a standardized manner for the County. Understanding the landscape and the challenges presented, all agencies and the County could consider forming one agency.

Over time, a single provider system may evolve out of necessity and the County should be thinking strategically on how to ensure a safety net is in place now before this occurs. The EMS landscape is dramatically changing as reimbursement is not rising at the same rates as the Consumer Price Index (CPI). Furthermore, provider salaries have increased and are increasing dramatically to match the

increasing cost of living in the County. Any economic downturn could affect the ability of communities in the County to sustain EMS without significant financial assistance.

The current economic landscape also causes concern for the future of the system. The shortage of EMS providers is expected to persist for many years to come. The economics of supply and demand are driving up provider wages. This combined with increased pressure on revenues is causing once robust profitable systems to fail. The cost to maintain the status quo will be enormous without deliberate and aggressive innovation and change.

Actions that Gallatin County can take to further support Option Four are outlined below.

1. The County will establish a single entity for the county.
2. County could determine if this would be Third Service, Private, or Hospital-Based.
3. County would set standards, then contract and fund any shortfalls.
4. Single operational and clinical plan.
5. Current fire agencies would eliminate EMS operations or provide back-up as needed to this primary provider, while continuing to maintain EMS non-transport license to complete Medical First Response.

The below SWOT assessment in pictorial form may be helpful to see the strengths, weaknesses, opportunities, and threats all in one space.

	Helpful	Harmful>Helpful
Internal Origin	Strengths ✓ Provides services for areas lacking equitable coverage ✓ Creates employment opportunities ✓ Can evolve as the need changes ✓ Staff workload management	Weakness o County does not support o Area agencies does not support
External Origin	Opportunities ➢ Can provide regular service that is scalable ➢ Stop gap measures are in place should there be sudden shifts/changes in the market space	Threats ▪ Lack of buy in from all stakeholders including elected officials ▪ Local municipal leaders do not support County providing service

COUNTY DISCUSSED FUNDING OPTIONS

After *FITCH*'s site visit, a discussion ensued related to various funding options. A separate meeting was scheduled, and the below chart was provided to *FITCH* by the County for discussion related to funding options that could align with *FITCH*'s options listed above. These options would need to be discussed at the local level as part of the strategic planning and funding mechanism.

CONCLUSION

To address these issues and ensure equitable access to EMS services, the County must explore the options presented in the recommendations. These include operating a single service or collaborating with existing agencies to establish a county EMS safety net system. The County must also establish a solid organizational structure to manage the system effectively and guarantee proper utilization of taxpayer funds.

The report highlights the importance of a systematic overhaul and collaborative efforts to improve EMS services across the County. It stresses the need for a unified governance model to centralize efforts and streamline operations. The system requires increased funding to enhance staffing levels and maintain service quality, which poses a significant challenge.

The expansion of fire services and Bozeman Health's potential development of a transport unit may impact the financial stability of private agencies. Therefore, it's crucial to address funding mechanisms and resource allocation to effectively support all stakeholders.

Engaging all stakeholders is essential to making the decision-making process a success. Developing a strategic plan with short- and long-range goals and objectives will ensure that patient care remains the top priority in the County.

Implementing a tiered response framework and standardizing protocols across agencies would ensure that EMS services are delivered promptly and effectively, thereby enhancing patient outcomes. The recommendations also emphasize the importance of continuous assessment and adaptation of the EMS system to meet evolving community needs and handle future demands effectively.

To align with best practices observed throughout the United States, Gallatin County's pathway forward must consider local legislative frameworks. Implementing these best practices, such as centralized command, standardization of operational protocols, and comprehensive funding models, requires careful adaptation to align with Montana's legal and regulatory environment.

Utilizing interlocal agreements represents a strategic approach to operationalizing the recommendations for the Gallatin County EMS system. Interlocal agreements offer a viable pathway to enhancing cooperation and coordination among various EMS providers, including fire services, private EMS agencies, and municipal health services. They provide a legal framework that allows multiple

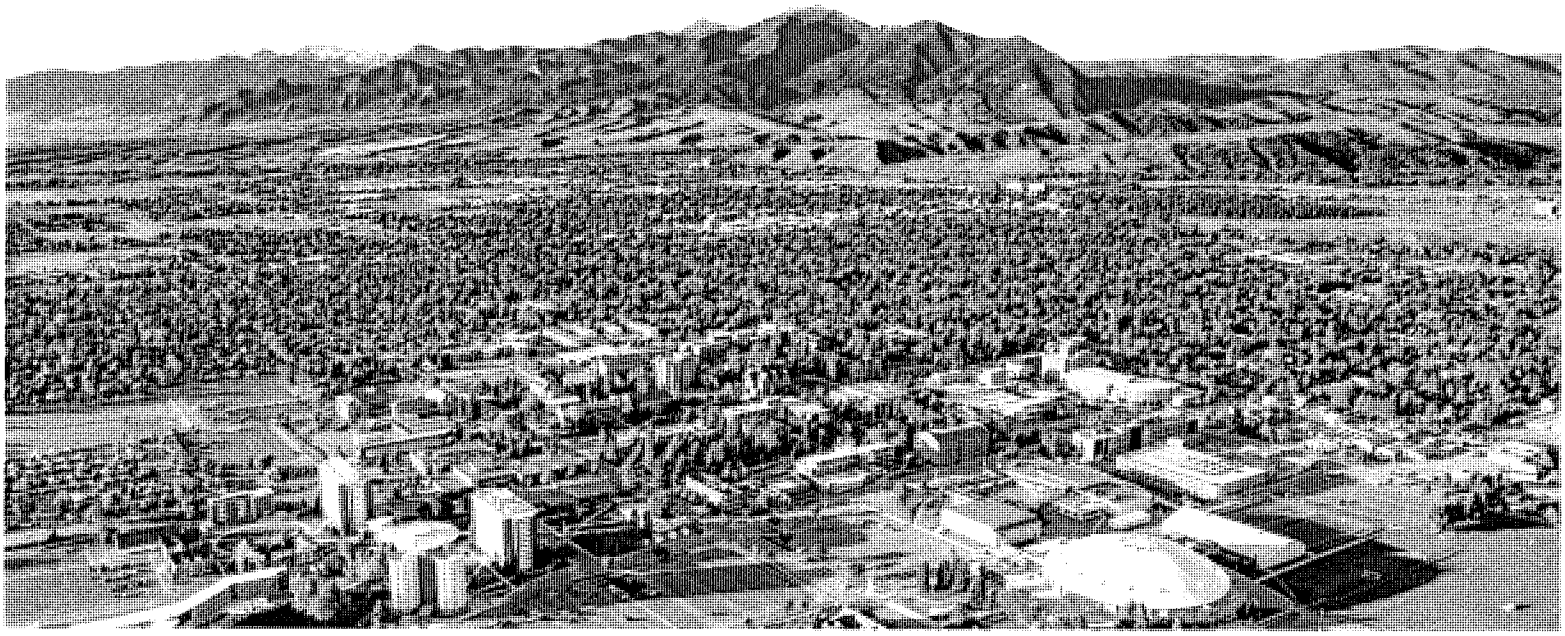
jurisdictions to collaborate on shared services, which is crucial for areas like Gallatin County, where geographical and logistical challenges can complicate EMS delivery.

Interlocal agreements can standardize response protocols and integrate dispatch systems, ensuring that all participating entities work from the same operational playbook. This is important in emergency medical services, where the time and quality of response can significantly impact outcomes.

Tailoring EMS district agreements to address specific local needs and conditions makes them an adaptable tool for implementing the report's recommendations. Leveraging agreements within Montana's legal framework is essential for implementing the systemic improvements recommended in the Gallatin County EMS report. Such contracts will enable effective collaboration, resource sharing, and strategic planning, creating a more integrated, efficient, and sustainable EMS system that serves all residents of Gallatin County.

Gallatin County Montana

Data Analysis



Gallatin County Emergency Management
Preparing Our Community

METHODOLOGY

FITCH was provided two main sources of data on EMS runs in Gallatin County.

AMR provided a spreadsheet out of their Electronic Health Record (EHR) software. This data covered a period from 1/1/2021 to 8/31/2023. It is also comprehensive including fields for Disposition, Level of Service, and Destination.

Gallatin County provided information from the CAD system for all EMS runs dispatched through the centralized 911 system. This data went back several years and included 53,670 records. For the purposes of this report data from before 1/1/2021 was excluded. Records up to 9/21/23 were included. The county data, because it came from the CAD and not an EHR, does not include data on Disposition, Level of Service, or Destination.

The County CAD data also includes numerous duplicate responses to incidents. For example, Bozeman M1 and AMR are dispatched to one call. Bozeman M3 is closer, takes the call, and then M1 clears. This results in 3 entries on the spreadsheet. With over 32,000 rows of data in the included date range and no information on disposition attached, the decision was made to count every record towards Total Volume figures. The disparity is then rectified later when tabulating Total Busy Time.

For both data sets, volumes were extrapolated to the end of 2023 by averaging the calls per day for the previous months in 2023 as well as that month in the two previous years. This was then multiplied by the number of days in the month to achieve an approximate extrapolation.

AMRs data also included their Inter-Facility Transfer work. This was excluded from most of the following report except for an outline of their volume and total busy time. You can assume that data is excluded unless expressly included.

TOTAL VOLUME

Data for all services was aggregated. Volumes for the last four months of 2023 were extrapolated as explained in the Methodology section.

Figure 1: Aggregate Call Volume by Quarter

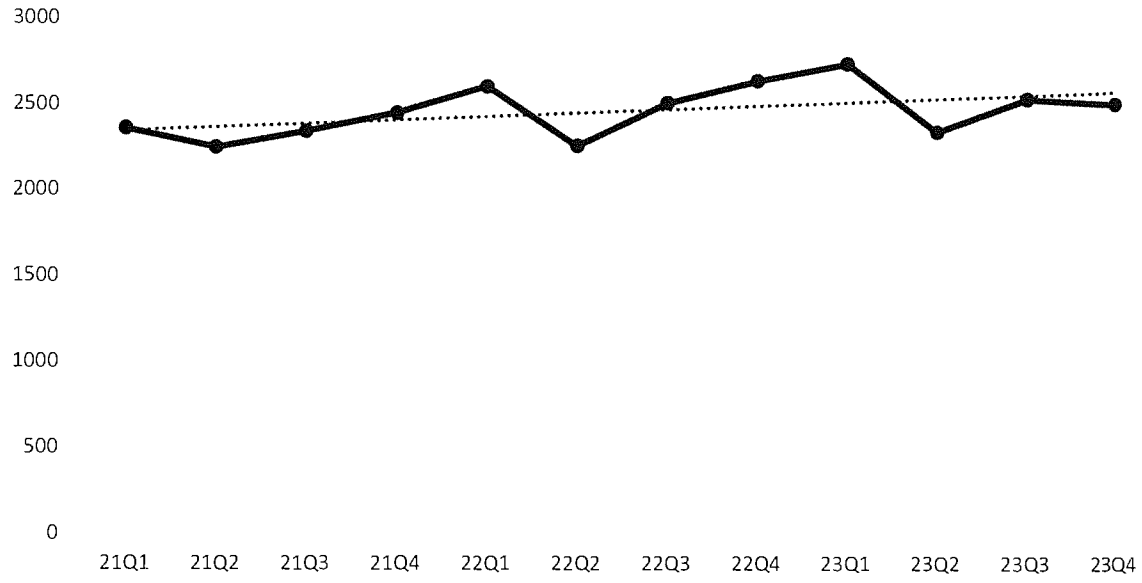


Figure 2: Aggregate Volume Table

2021	Q1	Q2	Q3	Q4	Total
Total Dispatches	2359	2249	2343	2451	9402
Average Per Day	26.21	24.71	25.47	26.64	25.76
2022	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	2604	2260	2510	2639	10013
Average Per Day	28.93	24.84	27.28	28.68	27.43
2023	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	2738	2342	2536	2507	10122
Average Per Day	30.42	25.74	27.56	27.25	27.73

Figure 3: Aggregate Volume by Month

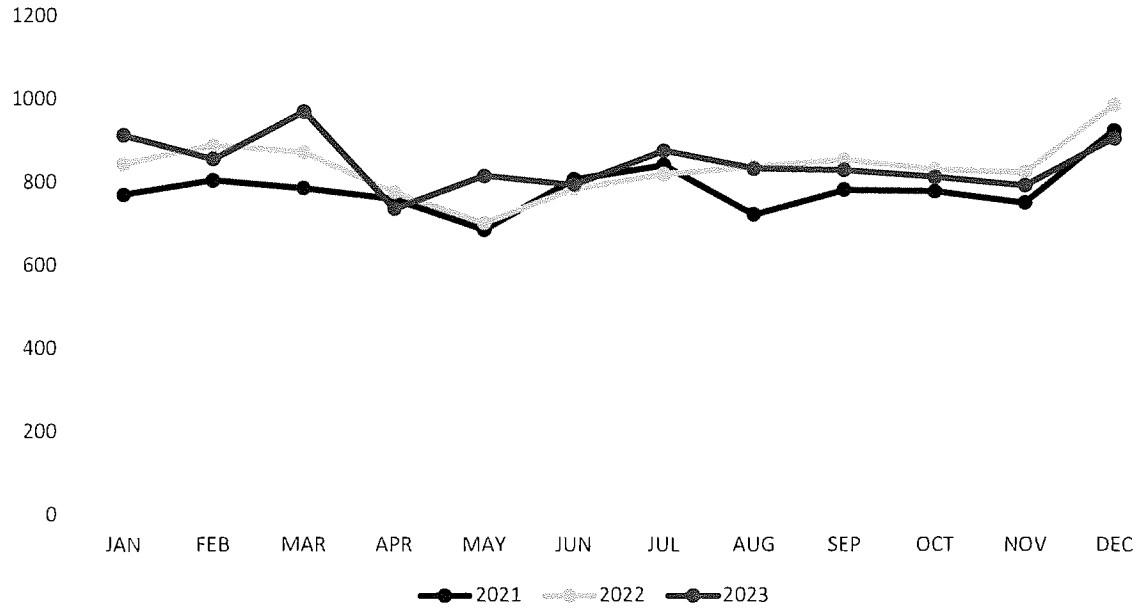


Figure 4: Aggregate Average Dispatches per Day by Month

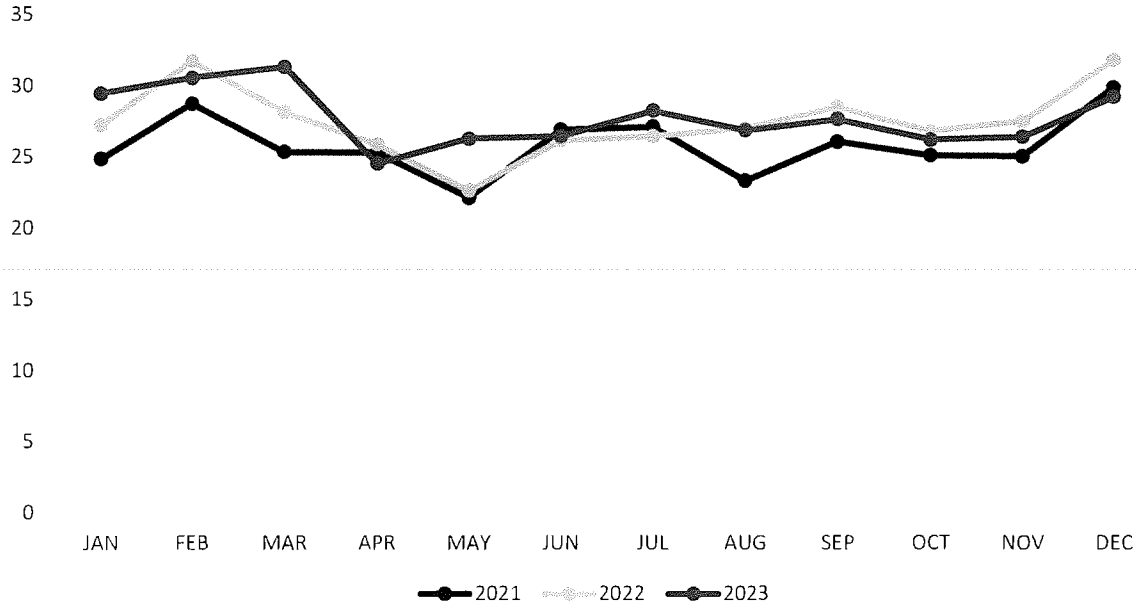


Figure 5: Aggregate Total Volume by Month (Table)

2021	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Total	770	804	785	758	685	806	840	722	781	777	750	924
Avg/Day	24.84	28.71	25.32	25.27	22.10	26.87	27.10	23.29	26.03	25.06	25.00	29.81
2022												
Total	844	888	872	775	701	784	819	837	854	830	824	985
Avg/Day	27.23	31.71	28.13	25.83	22.61	26.13	26.42	27.00	28.47	26.77	27.47	31.77
2023												
Total	913	855	970	735	814	793	875	832	829	811	791	904
Avg/Day	29.45	30.54	31.29	24.50	26.26	26.43	28.23	26.84	27.62	26.16	26.37	29.18

Figure 6: AMR Total Volume Breakdown by Quarter (Includes IFT)

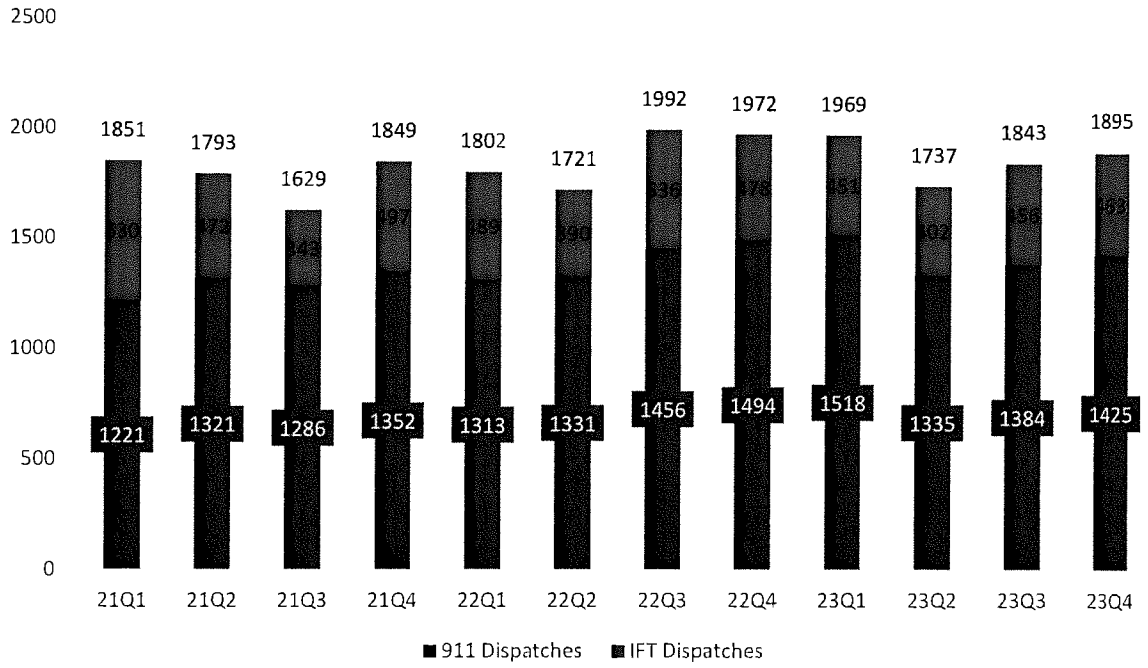


Figure 7: AMR Average Volume per Day by Quarter (Includes IFT)

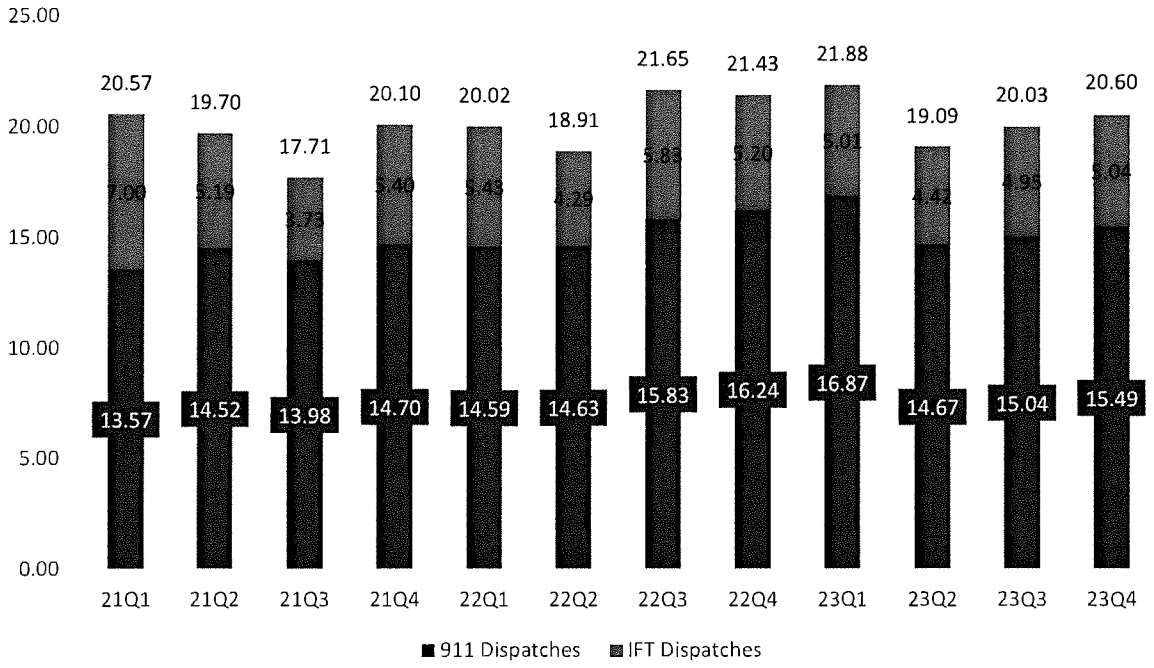


Figure 8: AMR Total Volume Breakdown by Quarter (Includes IFT) (Table)

2021	Q1	Q2	Q3	Q4	Total
Total Dispatches	1851	1793	1629	1849	7122
Avg per Day	20.57	19.70	17.71	20.10	19.51
911 Dispatches	1221	1321	1286	1352	5180
Avg per Day	13.57	14.52	13.98	14.70	14.19
IFT Dispatches	630	472	343	497	1942
Avg per Day	7.00	5.19	3.73	5.40	5.32
2022	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	1802	1721	1992	1972	7487
Avg per Day	20.02	18.91	21.65	21.43	20.51

911 Dispatches	1313	1331	1456	1494	5594
Avg per Day	14.59	14.63	15.83	16.24	15.33
IFT Dispatches	489	390	536	478	1893
Avg per Day	5.43	4.29	5.83	5.20	5.19
2023	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	1969	1737	1843	1895	7444
Avg per Day	21.88	19.09	20.03	20.60	20.39
911 Dispatches	1518	1335	1384	1425	5662
Avg per Day	16.87	14.67	15.04	15.49	15.51
IFT Dispatches	451	402	456	463	1772
Avg per Day	5.01	4.42	4.95	5.04	4.85

Figure 9: AMR Total Volume by Month (Includes IFT)

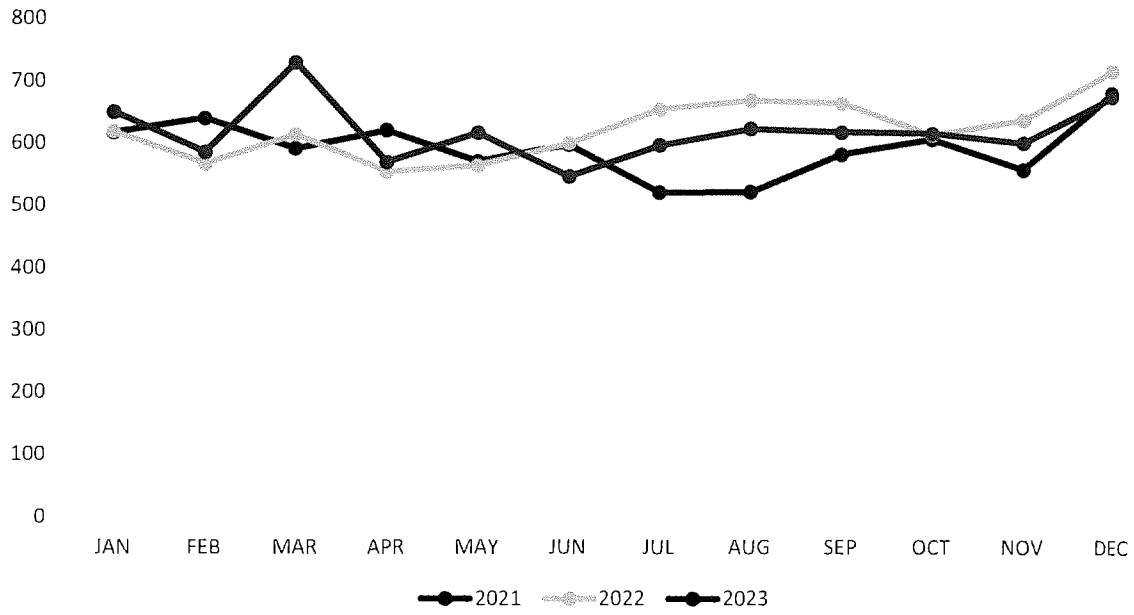


Figure 10: AMR Average Dispatches per Day by Month (Includes IFT)

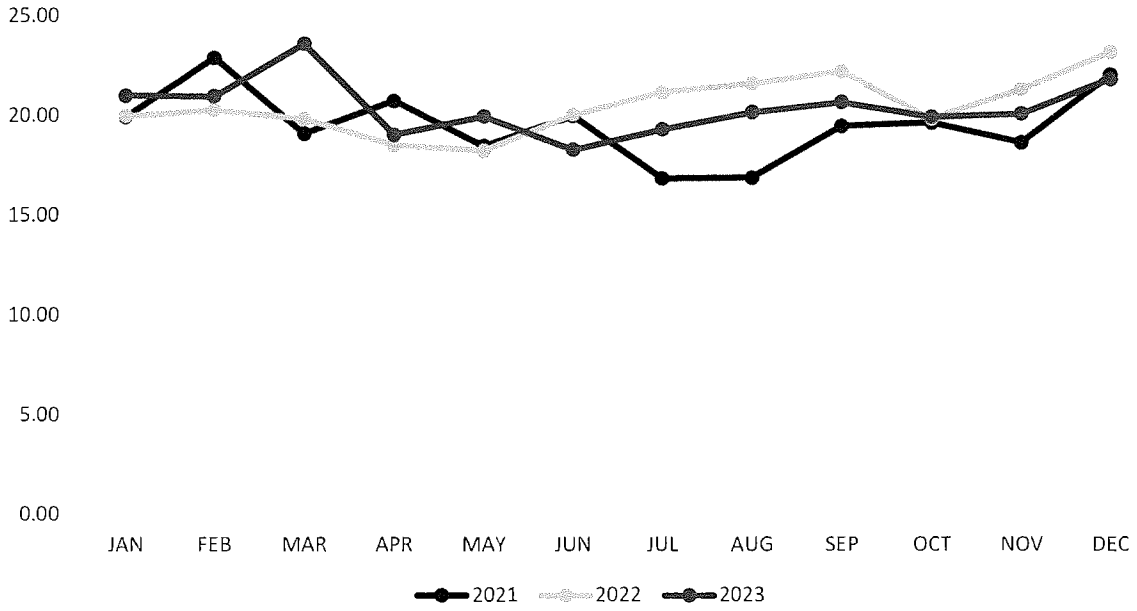


Figure 11: AMR Total Volume by Month (Includes IFT) (Table)

2021	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Total	618	641	592	622	572	599	522	523	584	608	559	682
Avg/Day	19.94	22.89	19.10	20.73	18.45	19.97	16.84	16.87	19.47	19.61	18.63	22.00
2022												
Total	619	568	615	555	565	601	656	670	666	615	639	718
Avg/Day	19.97	20.29	19.84	18.50	18.23	20.03	21.16	21.61	22.20	19.84	21.30	23.16
2023												
Total	651	587	731	571	618	548	598	625	620	617	602	676
Avg/Day	21.00	20.96	23.58	19.03	19.94	18.27	19.29	20.16	20.65	19.91	20.07	21.81

Figure 12: AMR Total Volume Breakdown by Month (Includes IFT)

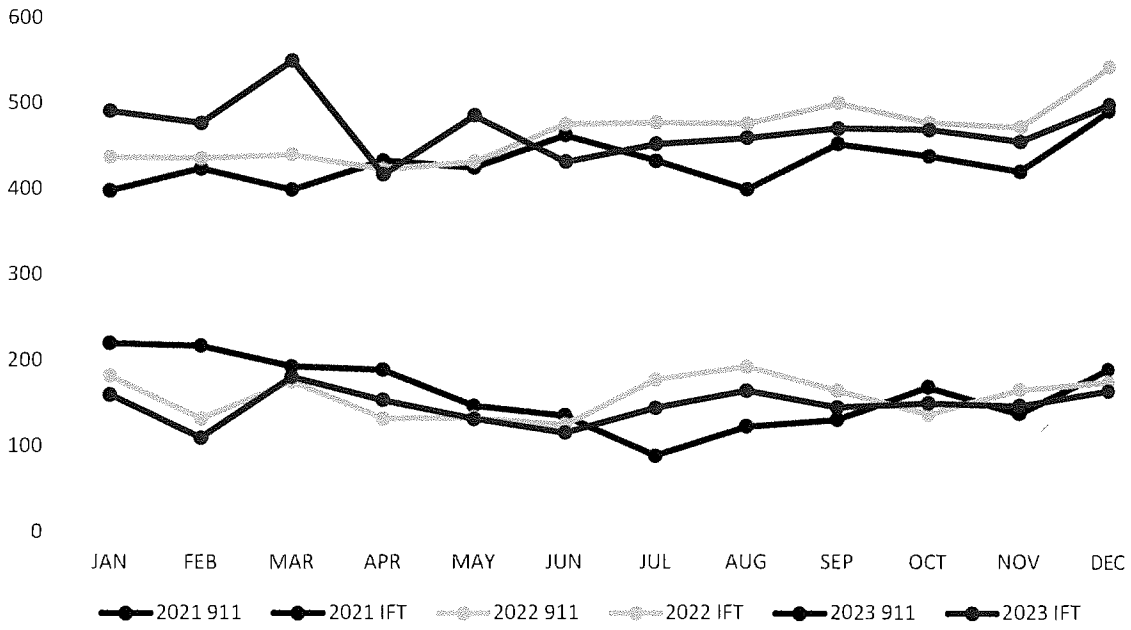


Figure 13: AMR Volume Breakdown Average Dispatches per Day by Month (Includes IFT)

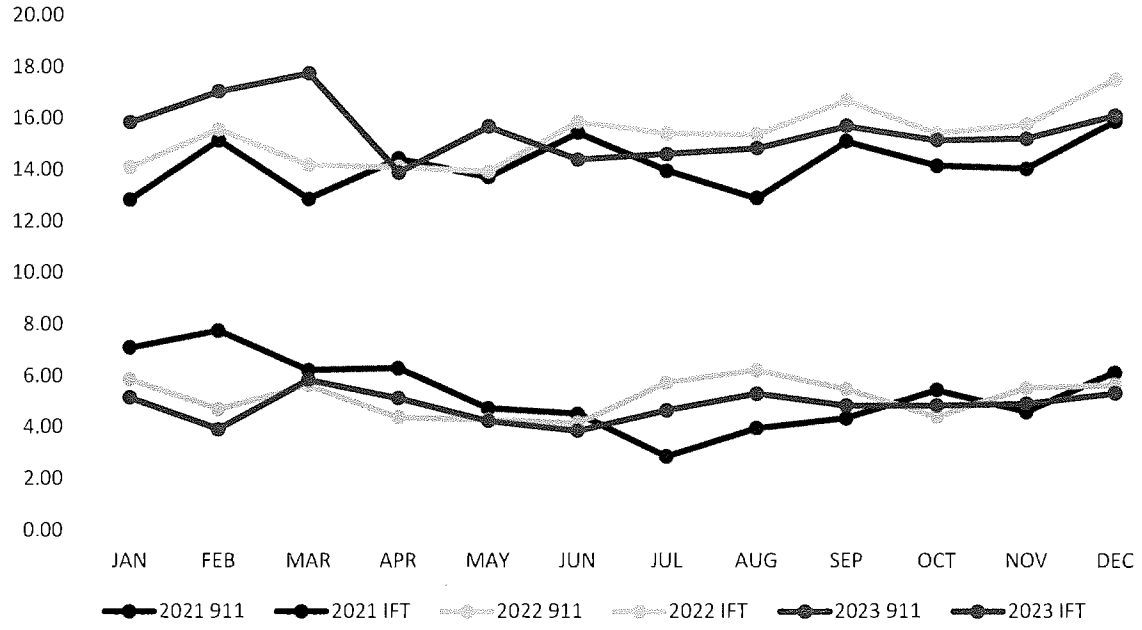


Figure 14: AMR Volume Breakdown by Month (Includes IFT) (Table)

2021	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
911	398	424	399	433	425	463	433	400	453	439	421	492
Avg/Day	12.84	15.14	12.87	14.43	13.71	15.43	13.97	12.90	15.10	14.16	14.03	15.87
IFT	220	217	193	189	147	136	89	123	131	169	138	190
Avg/Day	7.10	7.75	6.23	6.30	4.74	4.53	2.87	3.97	4.37	5.45	4.60	6.13
2022	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
911	437	436	440	423	432	476	478	477	501	478	473	543
Avg/Day	14.10	15.57	14.19	14.10	13.94	15.87	15.42	15.39	16.70	15.42	15.77	17.52
IFT	182	132	175	132	133	125	178	193	165	137	166	175
Avg/Day	5.87	4.71	5.65	4.40	4.29	4.17	5.74	6.23	5.50	4.42	5.53	5.65
2023	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
911	491	477	550	417	486	432	453	460	471	470	456	499
Avg/Day	15.84	17.04	17.74	13.90	15.68	14.40	14.61	14.84	15.70	15.15	15.20	16.10
IFT	160	110	181	154	132	116	145	165	146	150	148	165
Avg/Day	5.16	3.93	5.84	5.13	4.26	3.87	4.68	5.32	4.85	4.85	4.92	5.33

Figure 15: Bozeman FD EMS Volume by Quarter

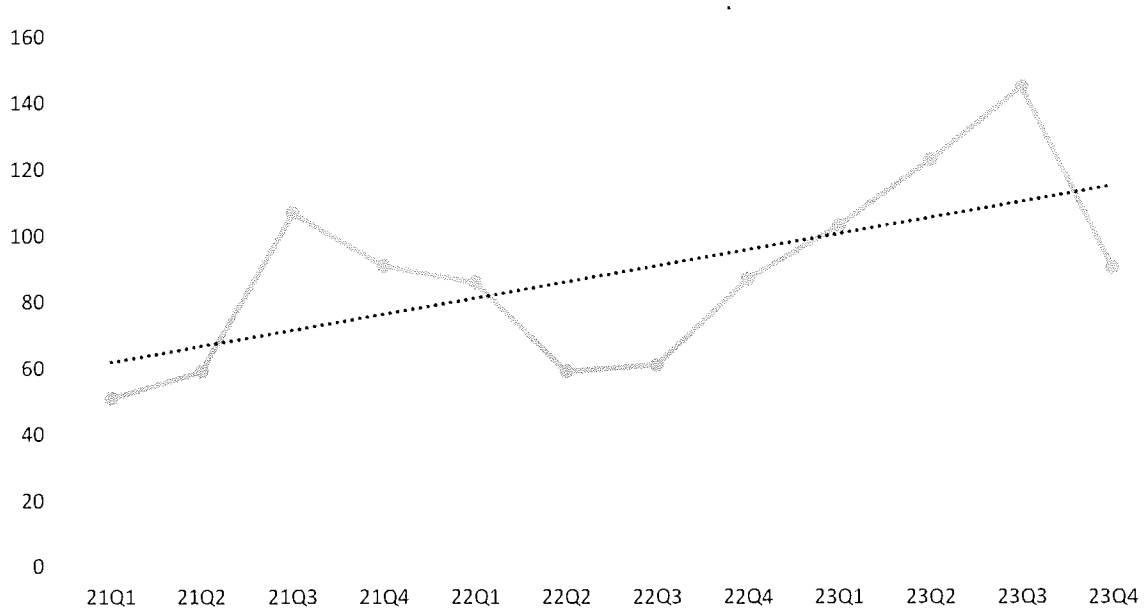


Figure 16: Bozeman FD EMS Volume by Quarter (Table)

2021	Q1	Q2	Q3	Q4	Total
Total Dispatches	51	59	107	91	308
Average Per Day	0.57	0.65	1.16	0.99	0.84
2022	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	86	59	61	87	293
Average Per Day	0.96	0.65	0.66	0.95	0.80
2023	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	103	123	145	91	462
Average Per Day	1.14	1.35	1.58	0.98	1.26

Figure 17: Bozeman FD EMS Volume by Month

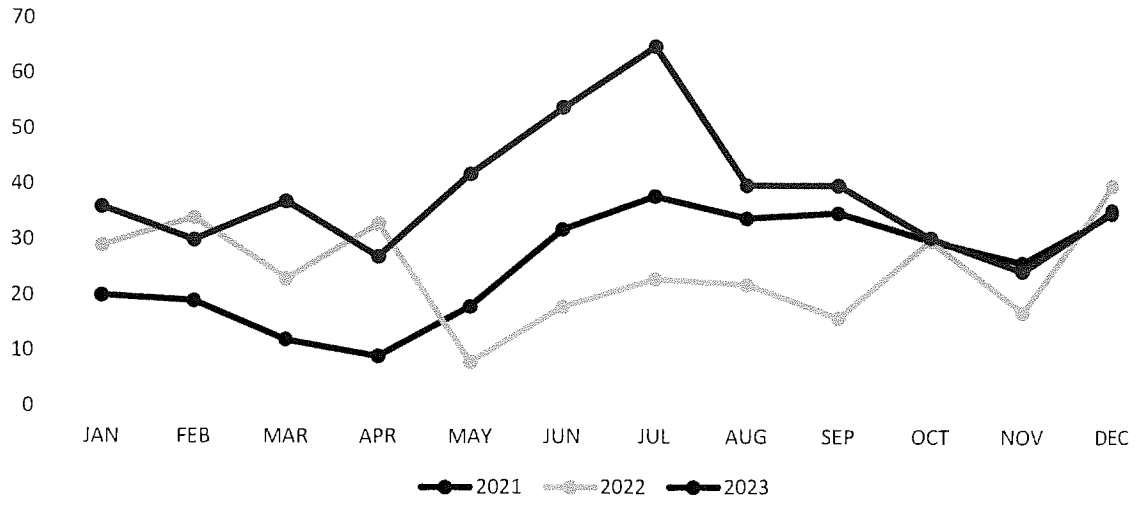


Figure 18: Bozeman FD EMS Average Dispatches per Day by Month

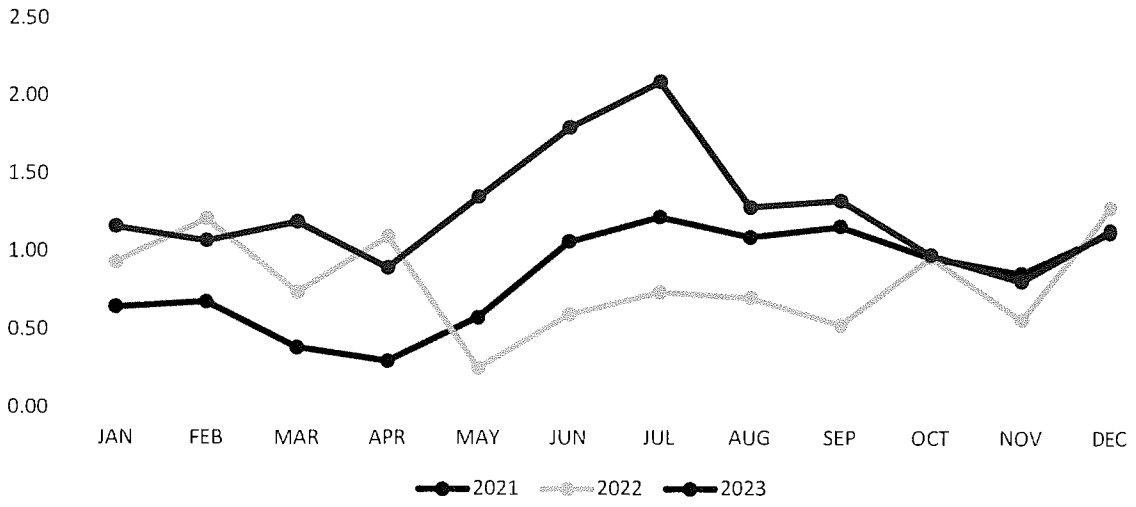


Figure 19: Bozeman FD Volume by Month (Table)

2021	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Total	20	19	12	9	18	32	38	34	35	30	26	35
Avg/Day	0.65	0.68	0.39	0.30	0.58	1.07	1.23	1.10	1.17	0.97	0.87	1.13
2022												
Total	29	34	23	33	8	18	23	22	16	30	17	40
Avg/Day	0.94	1.21	0.74	1.10	0.26	0.60	0.74	0.71	0.53	0.97	0.57	1.29
2023												
Total	36	30	37	27	42	54	65	40	40	31	24	36
Avg/Day	1.16	1.07	1.19	0.90	1.35	1.80	2.10	1.29	1.33	0.98	0.82	1.15

Figure 20: Big Sky FD EMS Volume by Quarter

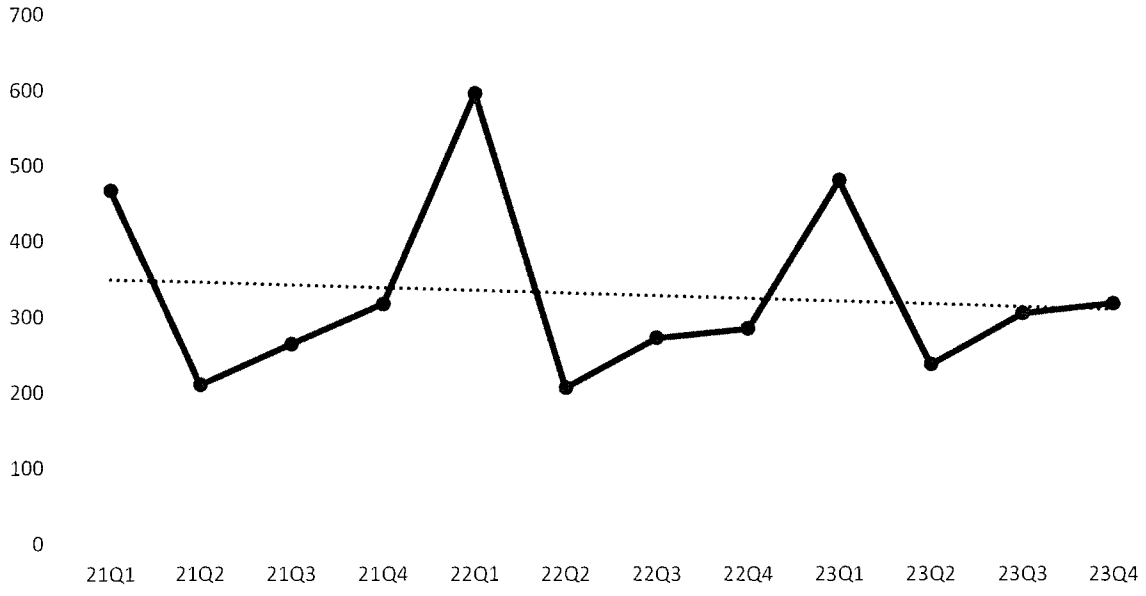


Figure 21: Big Sky FD EMS Volume by Quarter (Table)

2021	Q1	Q2	Q3	Q4	Total
Total Dispatches	467	210	264	317	1258
Average Per Day	5.19	2.31	2.87	3.45	3.45
2022	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	595	206	272	284	1357
Average Per Day	6.61	2.26	2.96	3.09	3.72
2023	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	480	237	304	318	1339
Average Per Day	5.33	2.60	3.31	3.45	3.67

Figure 22: Big Sky FD EMS Volume by Month

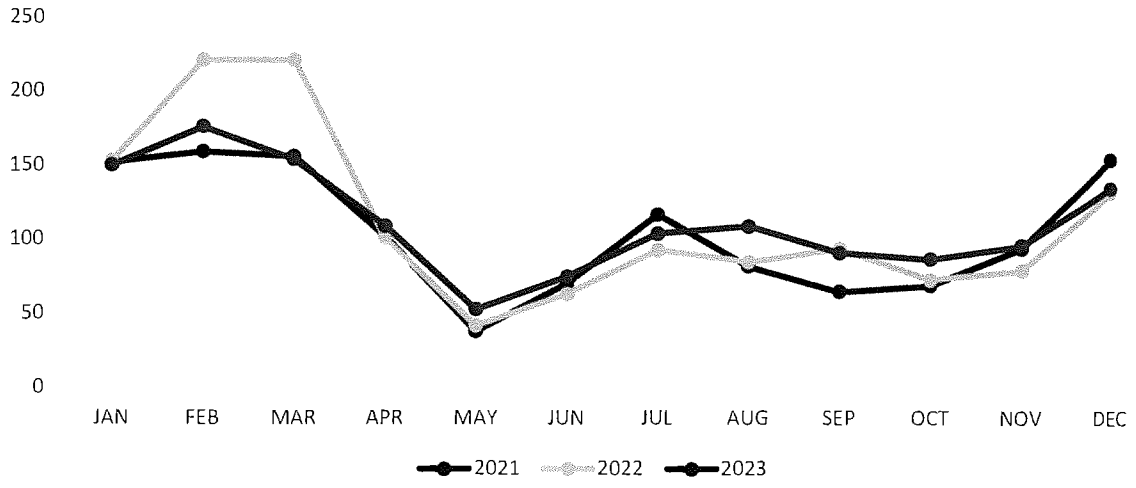


Figure 23: Big Sky FD EMS Average Dispatches per Day by Month

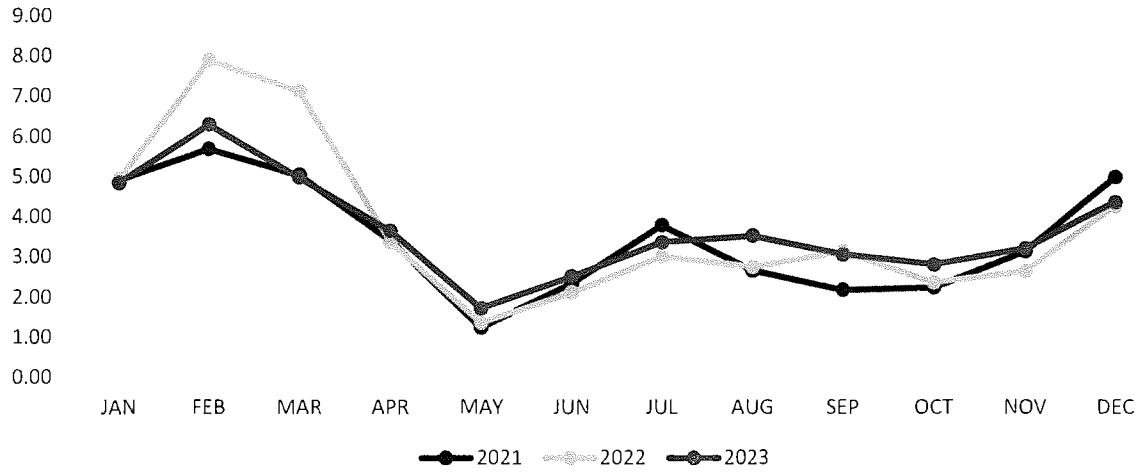


Figure 24: Big Sky FD EMS Volume by Month (Table)

2021	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Total	152	159	156	102	38	70	117	82	65	69	94	154
Avg/Day	4.90	5.68	5.03	3.40	1.23	2.33	3.77	2.65	2.17	2.23	3.13	4.97
2022												
Total	153	221	221	101	42	63	93	85	94	73	79	132
Avg/Day	4.94	7.89	7.13	3.37	1.35	2.10	3.00	2.74	3.13	2.35	2.63	4.26
2023												
Total	150	176	154	109	53	75	104	109	91	87	96	135
Avg/Day	4.84	6.29	4.97	3.63	1.71	2.50	3.35	3.52	3.04	2.80	3.20	4.35

Figure 25: Clarkston RFD EMS Volume by Quarter

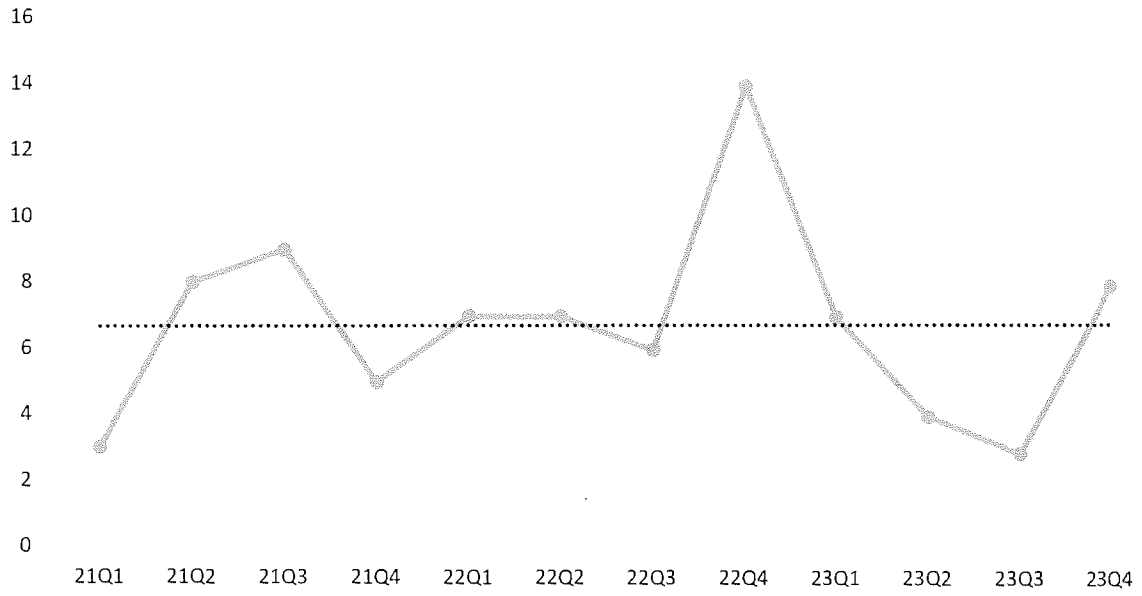


Figure 26: Clarkston RFD EMS Volume by Quarter (Table)

2021	Q1	Q2	Q3	Q4	Total
Total Dispatches	3	8	9	5	25
Average Per Day	0.03	0.09	0.10	0.05	0.07
2022	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	7	7	6	14	34
Average Per Day	0.08	0.08	0.07	0.15	0.09
2023	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	7	4	3	8	22
Average Per Day	0.08	0.04	0.03	0.09	0.06

Figure 27: Clarkston RFD EMS Volume by Month

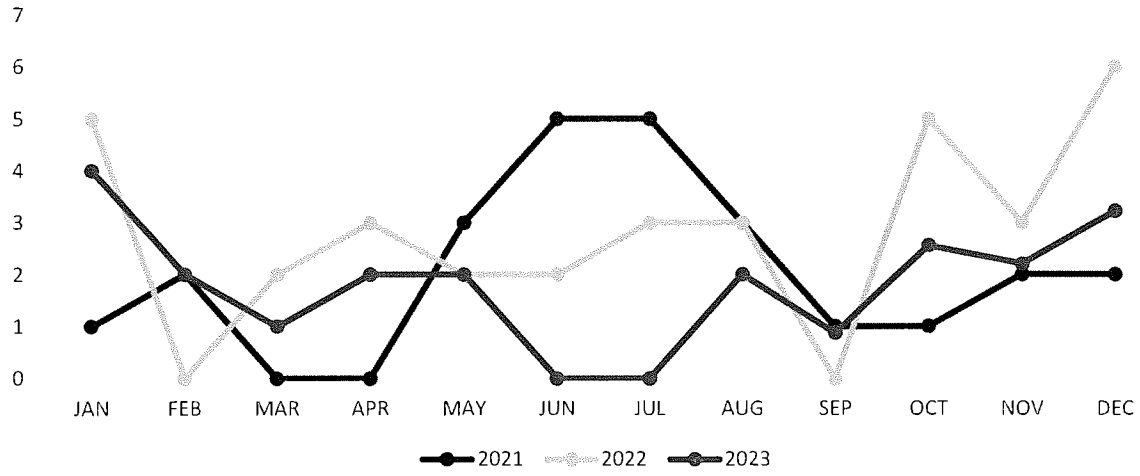


Figure 28: Clarkston RFD EMS Average Dispatches per Day by Month

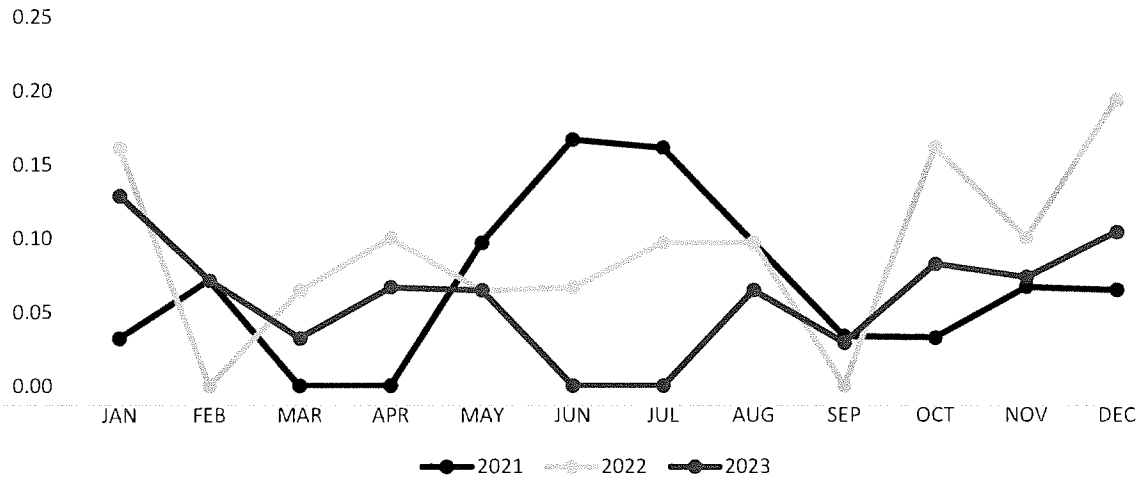


Figure 29: Clarkston RFD EMS Volume by Month (Table)

2021	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Total	1	2	0	0	3	5	5	3	1	1	2	2
Avg/Day	0.03	0.07	0.00	0.00	0.10	0.17	0.16	0.10	0.03	0.03	0.07	0.06
2022												
Total	5	0	2	3	2	2	3	3	0	5	3	6
Avg/Day	0.16	0.00	0.06	0.10	0.06	0.07	0.10	0.10	0.00	0.16	0.10	0.19
2023												
Total	4	2	1	2	2	0	0	2	1	3	2	3
Avg/Day	0.13	0.07	0.03	0.07	0.06	0.00	0.00	0.06	0.03	0.08	0.07	0.10

Figure 30: Hyalite RFD EMS Volume by Quarter

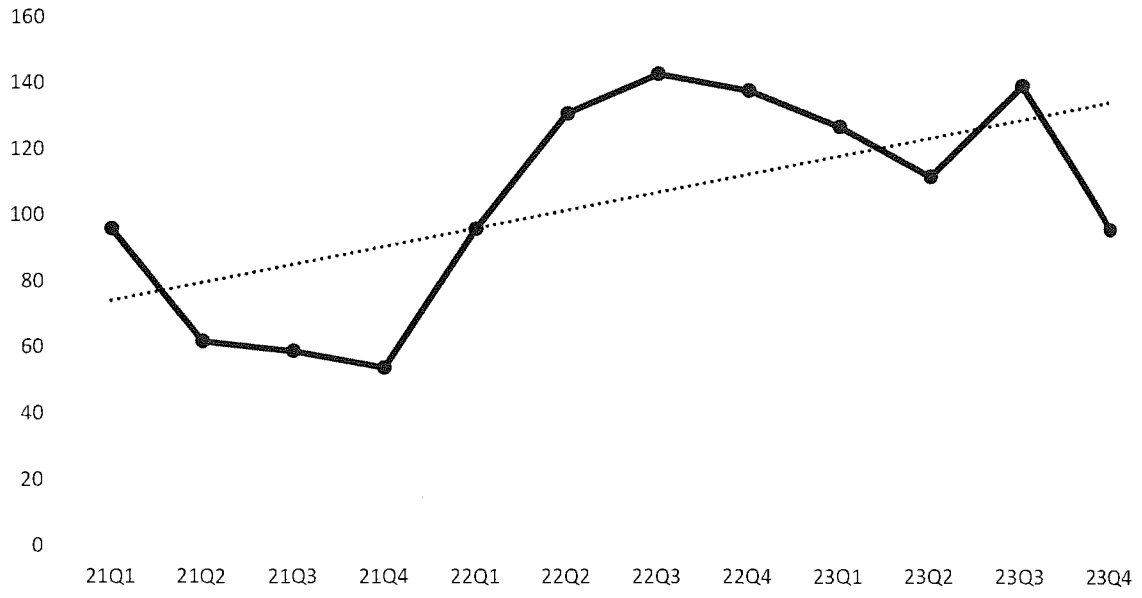


Figure 31: Hyalite RFD EMS Volume by Quarter (Table)

2021	Q1	Q2	Q3	Q4	Total
Total Dispatches	96	62	59	54	271
Average Per Day	1.07	0.68	0.64	0.59	0.74
2022	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	96	131	143	138	508
Average Per Day	1.07	1.44	1.55	1.50	1.39
2023	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	127	112	140	96	475
Average Per Day	1.41	1.23	1.52	1.04	1.30

Figure 32: Hyalite RFD EMS Volume by Month

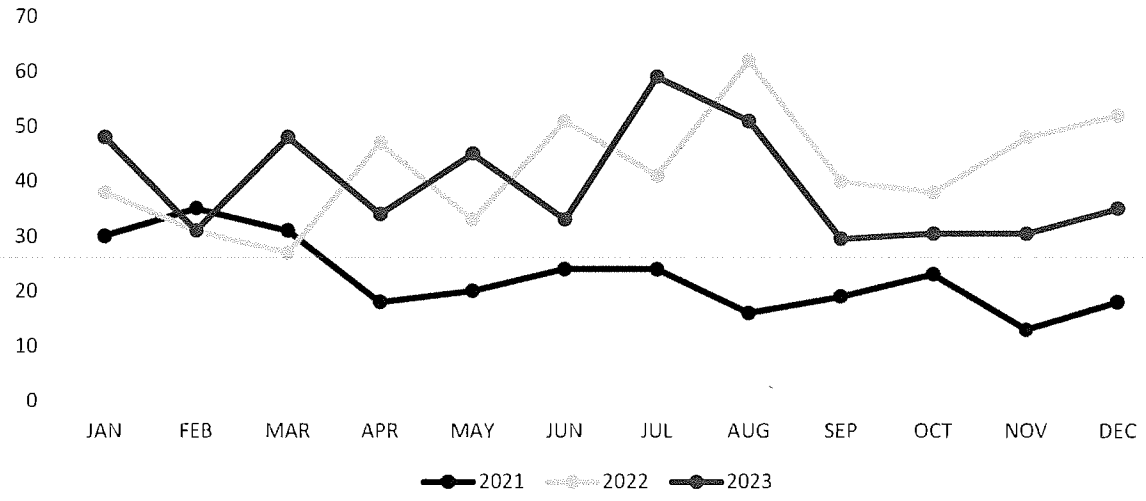


Figure 33: Hyalite RFD EMS Average Dispatches per Day by Month

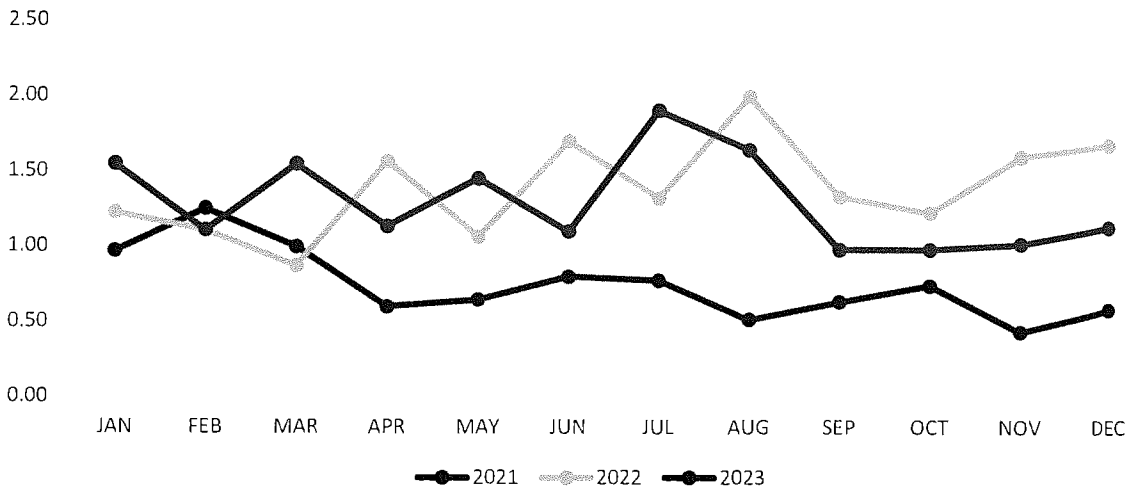


Figure 34: Hyalite RFD EMS Volume by Month (Table)

2021	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Total	30	35	31	18	20	24	24	16	19	23	13	18
Avg/Day	0.97	1.25	1.00	0.60	0.65	0.80	0.77	0.52	0.63	0.74	0.43	0.58
2022												
Total	38	31	27	47	33	51	41	62	40	38	48	52
Avg/Day	1.23	1.11	0.87	1.57	1.06	1.70	1.32	2.00	1.33	1.23	1.60	1.68
2023												
Total	48	31	48	34	45	33	59	51	30	31	31	35
Avg/Day	1.55	1.11	1.55	1.13	1.45	1.10	1.90	1.65	0.98	0.98	1.02	1.13

Figure 35: Amsterdam RFD EMS Volume by Quarter

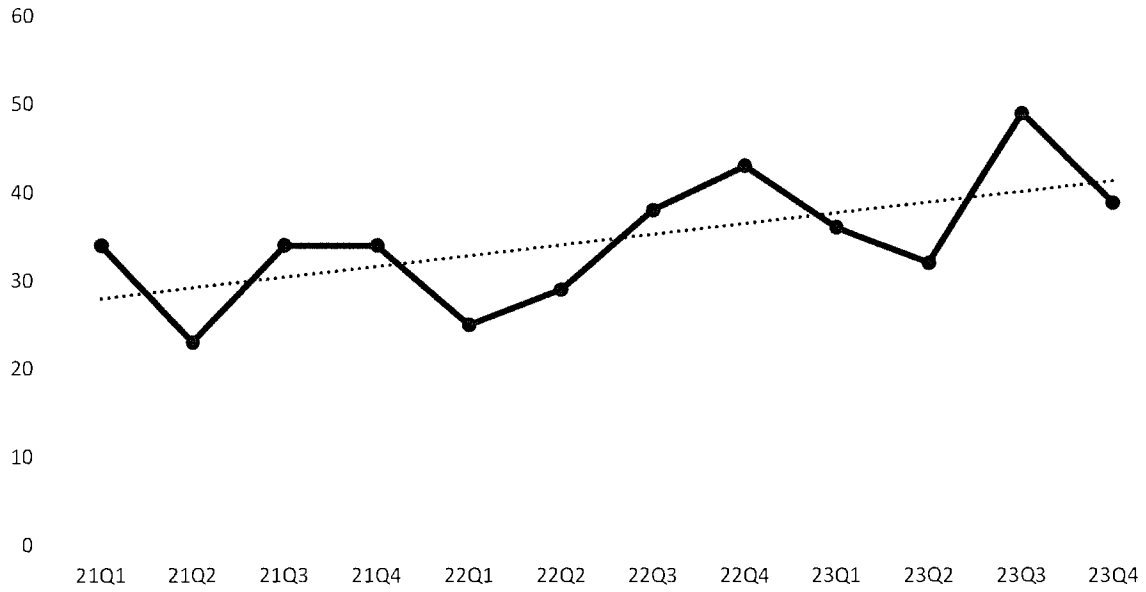


Figure 36: Amsterdam RFD EMS Volume by Quarter (Table)

2021	Q1	Q2	Q3	Q4	Total
Total Dispatches	34	23	34	34	125
Average Per Day	0.38	0.25	0.37	0.37	0.34
2022	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	25	29	38	43	135
Average Per Day	0.28	0.32	0.41	0.47	0.37
2023	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	36	32	49	39	156
Average Per Day	0.40	0.35	0.53	0.42	0.43

Figure 37: Amsterdam RFD EMS Volume by Month

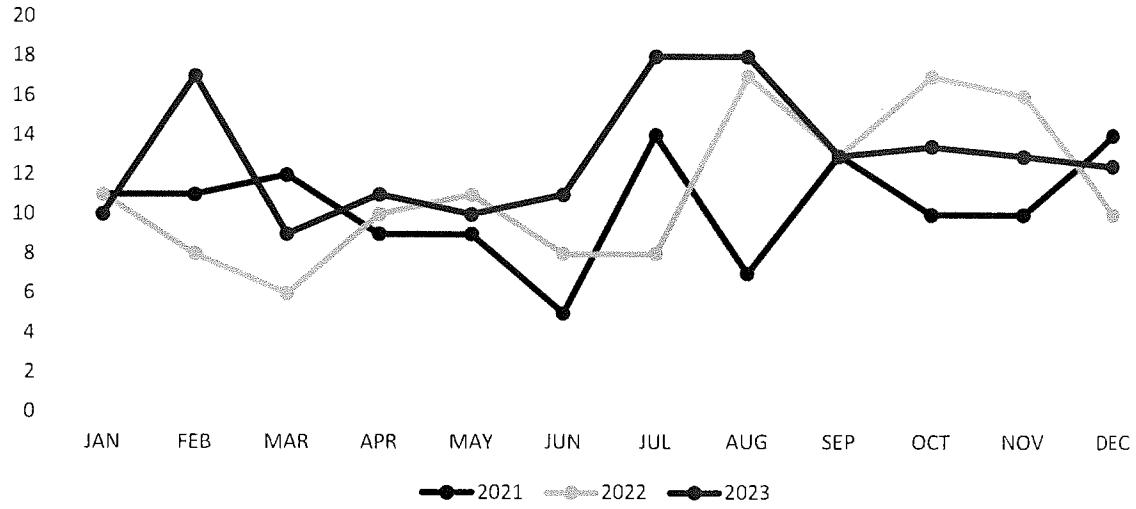


Figure 38: Amsterdam RFD EMS Average Dispatches per Day by Month

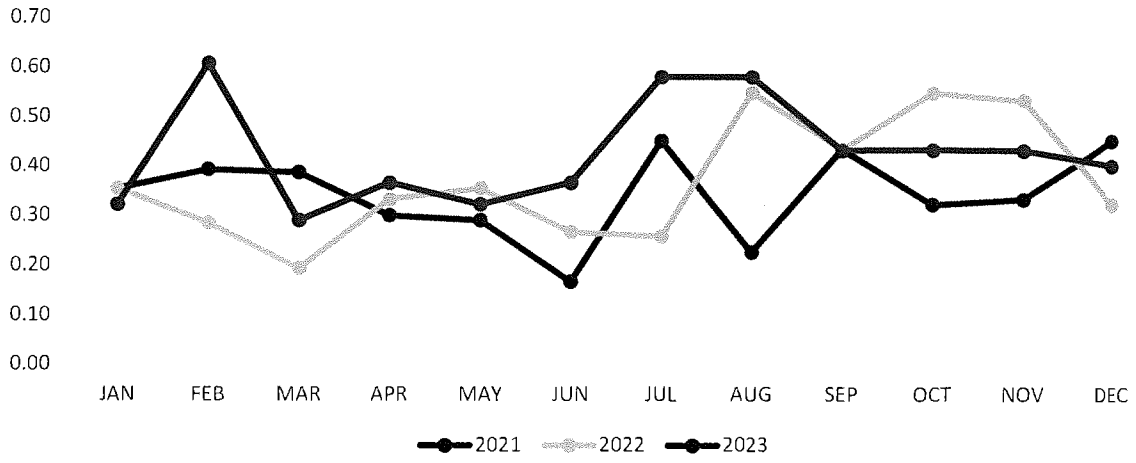


Figure 39: Amsterdam RFD EMS Volume by Month (Table)

2021	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Total	30	35	31	18	20	24	24	16	19	23	13	18
Avg/Day	0.97	1.25	1.00	0.60	0.65	0.80	0.77	0.52	0.63	0.74	0.43	0.58
2022												
Total	38	31	27	47	33	51	41	62	40	38	48	52
Avg/Day	1.23	1.11	0.87	1.57	1.06	1.70	1.32	2.00	1.33	1.23	1.60	1.68
2023												
Total	48	31	48	34	45	33	59	51	30	31	31	35
Avg/Day	1.55	1.11	1.55	1.13	1.45	1.10	1.90	1.65	0.98	0.98	1.02	1.13

Figure 40: Central Valley FD EMS Volume by Quarter

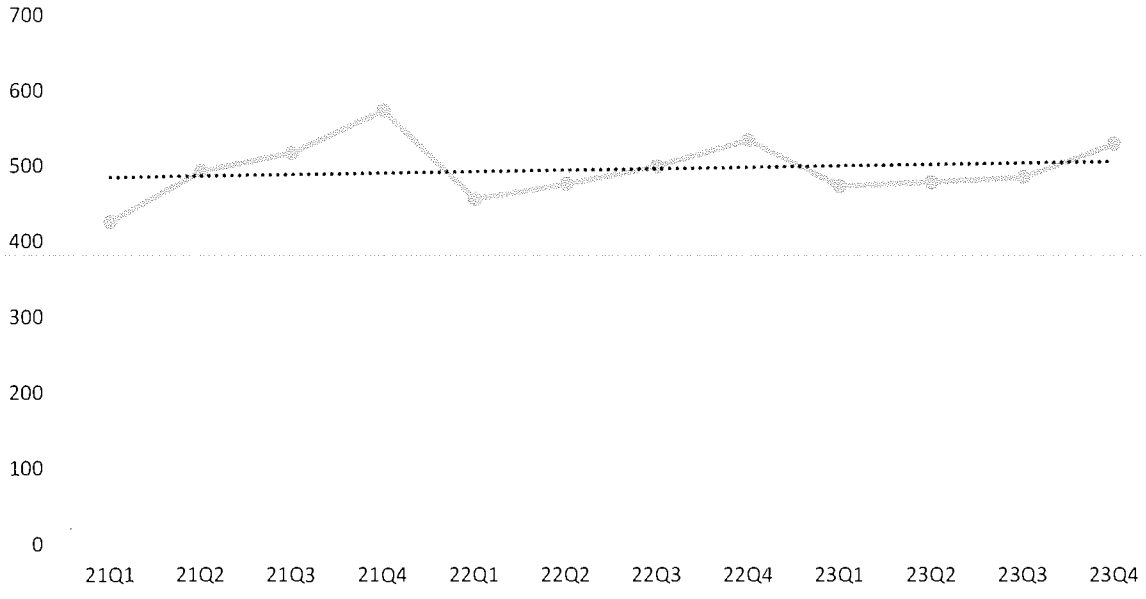


Figure 41: Central Valley EMS Volume by Quarter (Table)

2021	Q1	Q2	Q3	Q4	Total
Total Dispatches	427	494	518	574	2013
Average Per Day	4.74	5.43	5.63	6.24	5.52
2022	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	457	477	500	535	1969
Average Per Day	5.08	5.24	5.43	5.82	5.39
2023	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	474	479	486	530	1969
Average Per Day	5.27	5.26	5.28	5.76	5.39

Figure 42: Central Valley EMS Volume by Month

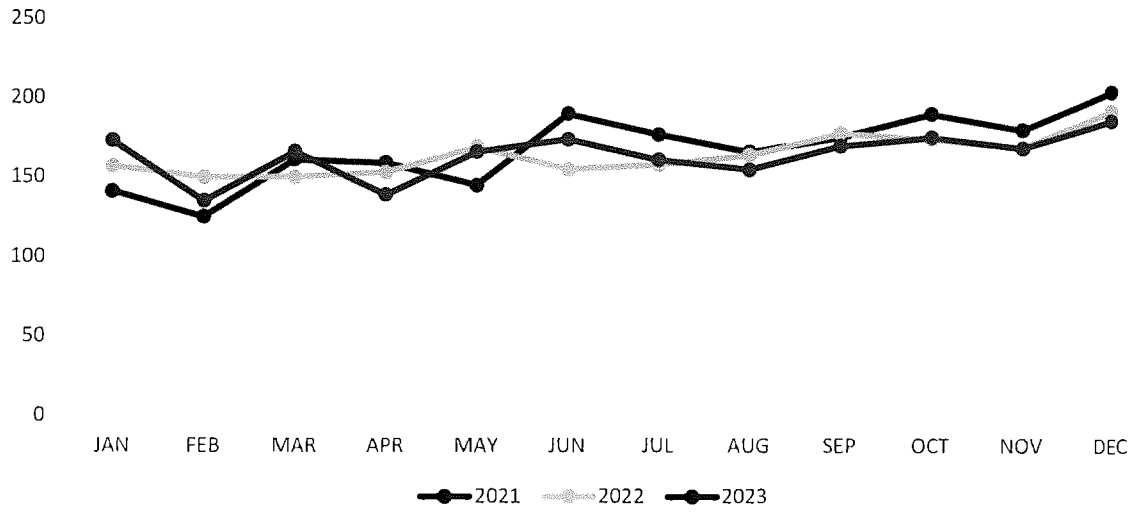


Figure 43: Central Valley EMS Average Dispatches per Day by Month

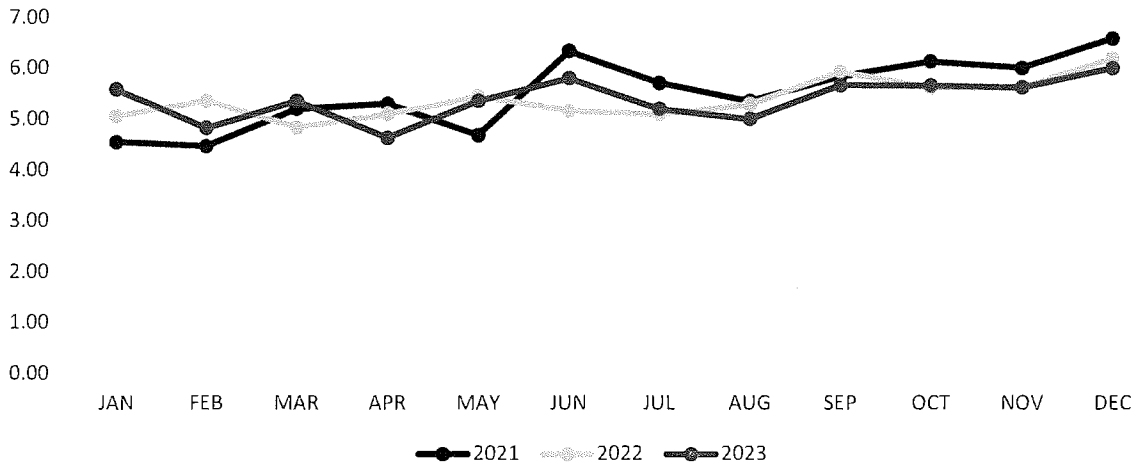


Figure 44: Central Valley EMS Volume by Month (Table)

2021	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Total	141	125	161	159	145	190	177	166	175	190	180	204
Avg/Day	4.55	4.46	5.19	5.30	4.68	6.33	5.71	5.35	5.83	6.13	6.00	6.58
2022												
Total	157	150	150	153	169	155	158	164	178	174	169	192
Avg/Day	5.06	5.36	4.84	5.10	5.45	5.17	5.10	5.29	5.93	5.61	5.63	6.19
2023												
Total	173	135	166	139	166	174	161	155	170	175	169	186
Avg/Day	5.58	4.82	5.35	4.63	5.35	5.80	5.19	5.00	5.66	5.65	5.62	6.00

Figure 45: Three Forks Ambulance Volume by Quarter

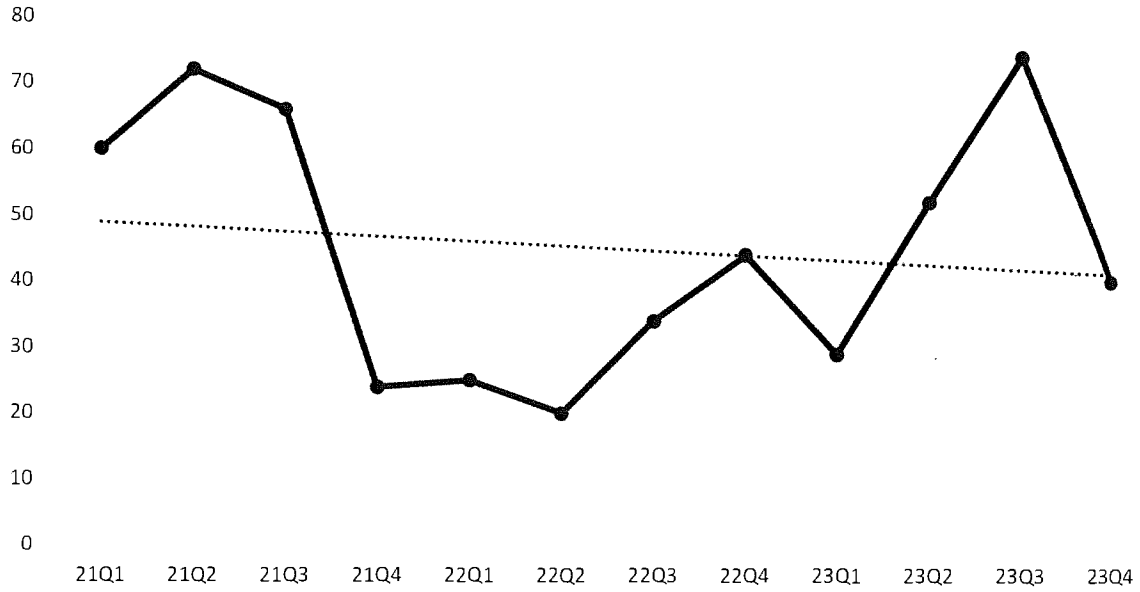


Figure 46: Three Forks Ambulance Volume by Quarter (Table)

2021	Q1	Q2	Q3	Q4	Total
Total Dispatches	60	72	66	24	222
Average Per Day	0.67	0.79	0.72	0.26	0.61
2022	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	25	20	34	44	123
Average Per Day	0.28	0.22	0.37	0.48	0.34
2023	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	29	52	74	40	195
Average Per Day	0.32	0.57	0.80	0.43	0.53

Figure 47: Three Forks Ambulance Volume by Month

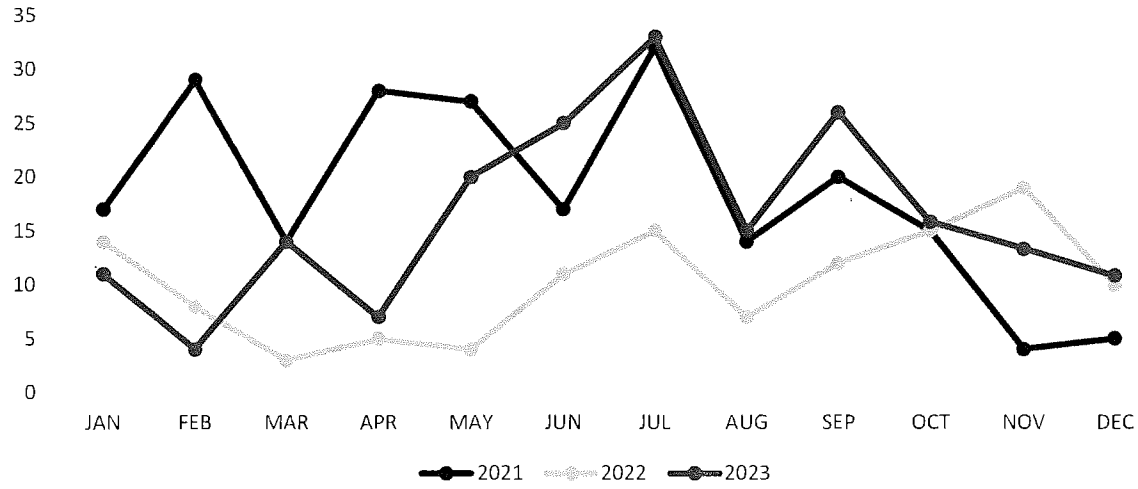


Figure 48: Three Forks Ambulance Average Dispatches per Day by Month

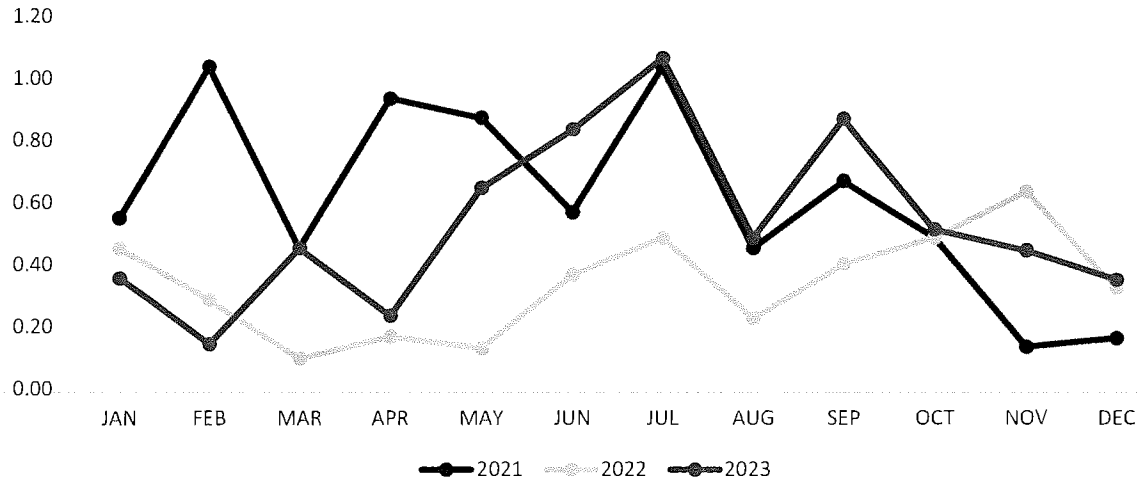


Figure 49: Three Forks Ambulance Volume by Month (Table)

2021	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Total	17	29	14	28	27	17	32	14	20	15	4	5
Avg/Day	0.55	1.04	0.45	0.93	0.87	0.57	1.03	0.45	0.67	0.48	0.13	0.16
2022												
Total	14	8	3	5	4	11	15	7	12	15	19	10
Avg/Day	0.45	0.29	0.10	0.17	0.13	0.37	0.48	0.23	0.40	0.48	0.63	0.32
2023												
Total	11	4	14	7	20	25	33	15	26	16	13	11
Avg/Day	0.35	0.14	0.45	0.23	0.65	0.83	1.06	0.48	0.87	0.51	0.44	0.35

TEMPORAL ANALYSIS

Figure 50: Aggregate Average Total Volume per Hour of Day (2021-2023)

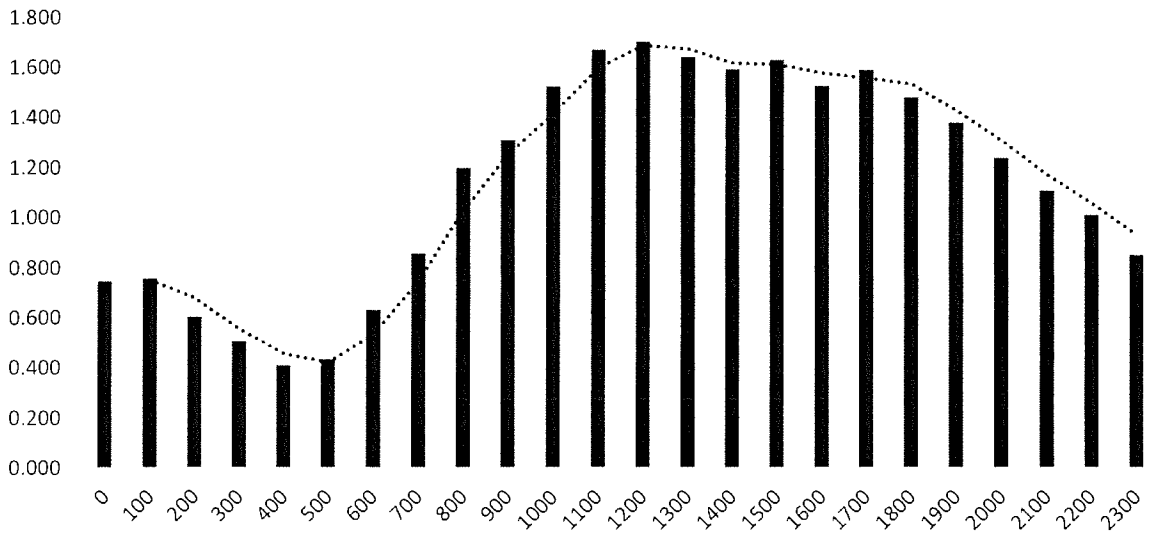


Figure 51: Aggregate Average Total Volume per Hour of Day (2021)

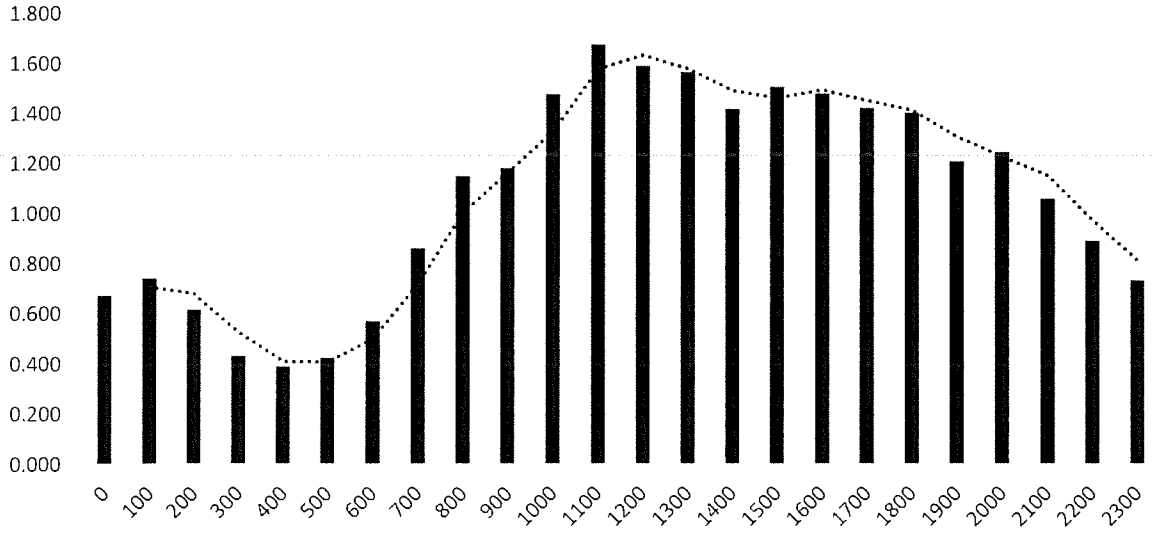


Figure 52: Aggregate Average Total Volume per Hour of Day (2022)

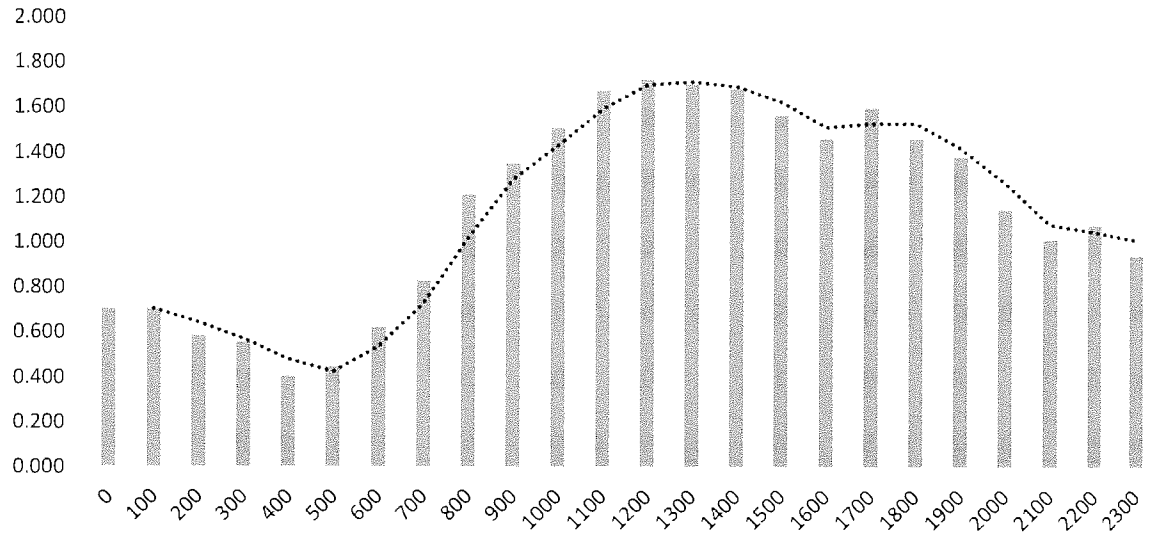


Figure 53: Aggregate Average Total Volume per Hour of Day (2023)

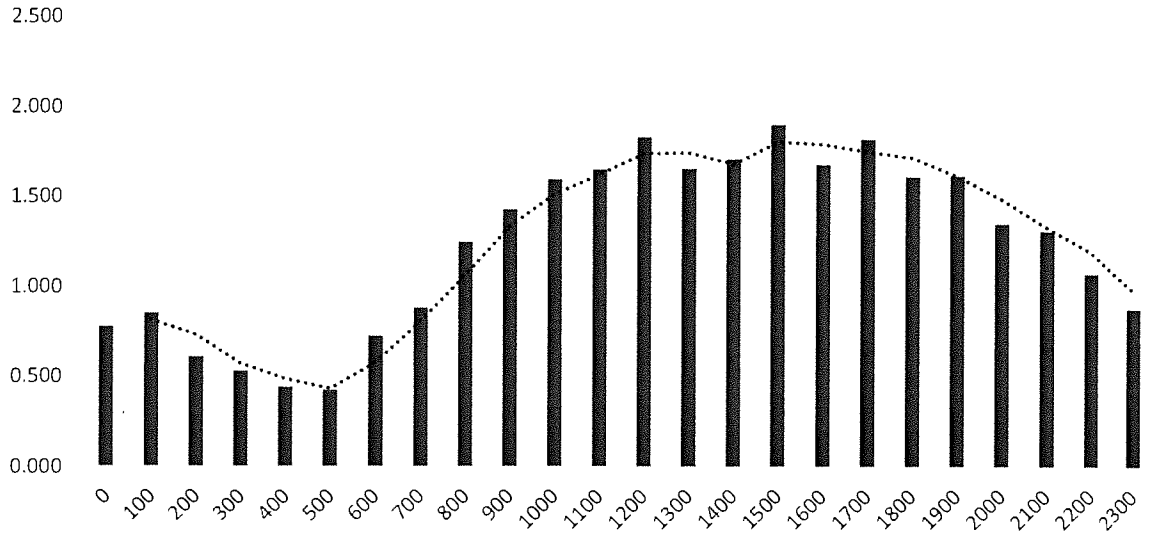


Figure 54: Aggregate Average Total Volume per Hour of Day (Table)

	0	100	200	300	400	500	600	700
Agg 2021	246	271	226	158	143	156	209	315
Avg/Hr	0.674	0.742	0.619	0.433	0.392	0.427	0.573	0.863
Agg 2022	258	258	214	204	148	164	228	304
Avg/Hr	0.707	0.707	0.586	0.559	0.405	0.449	0.625	0.833
Agg 2023	190	208	149	130	108	104	177	215
Avg/Hr	0.782	0.856	0.613	0.535	0.444	0.428	0.728	0.885
Agg 21-23	726	737	589	492	399	424	614	834
Avg/Hr	0.746	0.757	0.605	0.506	0.410	0.436	0.631	0.857
	800	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**
Agg 2021	420	432	540	612	581	572	518	550
Avg/Hr	1.151	1.184	1.479	1.677	1.592	1.567	1.419	1.507
Agg 2022	444	494	552	613	631	623	616	572
Avg/Hr	1.216	1.353	1.512	1.679	1.729	1.707	1.688	1.567
Agg 2023	304	348	389	402	446	403	416	463
Avg/Hr	1.251	1.432	1.601	1.654	1.835	1.658	1.712	1.905
Agg 21-23	1168	1274	1482	1627	1658	1598	1550	1585
Avg/Hr	1.200	1.309	1.523	1.672	1.704	1.642	1.593	1.629
	1600	**1700**	**1800**	**1900**	**2000**	**2100**	**2200**	**2300**
Agg 2021	541	520	513	442	455	387	326	269
Avg/Hr	1.482	1.425	1.405	1.211	1.247	1.060	0.893	0.737
Agg 2022	535	584	534	505	420	372	395	345
Avg/Hr	1.466	1.600	1.463	1.384	1.151	1.019	1.082	0.945

Agg 2023	409	443	392	394	329	319	261	214
Avg/Hr	1.683	1.823	1.613	1.621	1.354	1.313	1.074	0.881
Agg 21-23	1485	1547	1439	1341	1204	1078	982	828
Avg/Hr	1.526	1.590	1.479	1.378	1.237	1.108	1.009	0.851

Figure 55: AMR 911 Average Dispatches by Hour of Day (2021-2023)

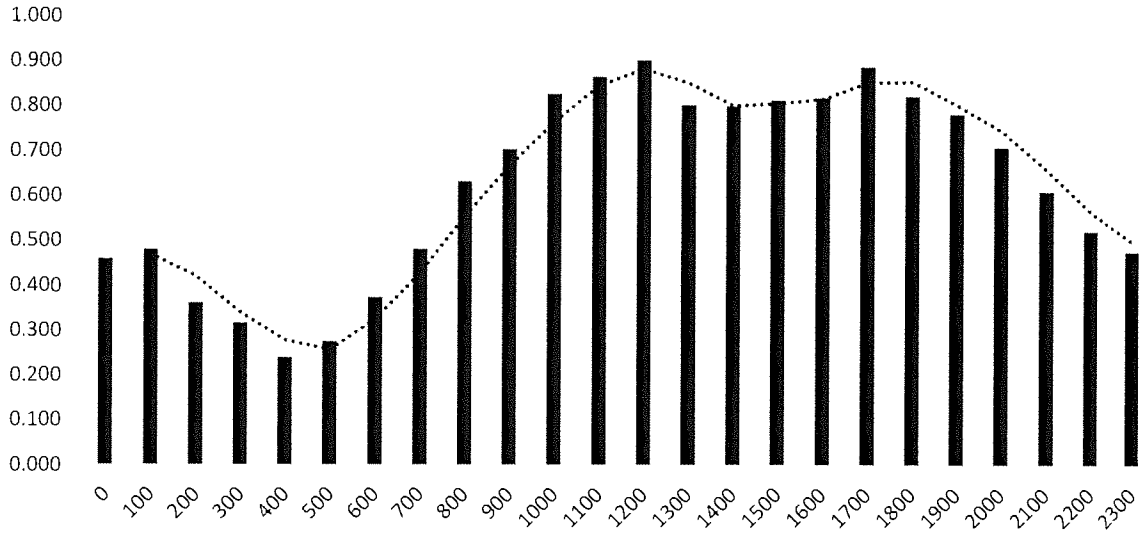


Figure 56: Bozeman FD EMS Average Dispatches by Hour of Day (2021-2023)

Figure 57: Big Sky FD EMS Average Dispatches by Hour of Day (2021-2023)

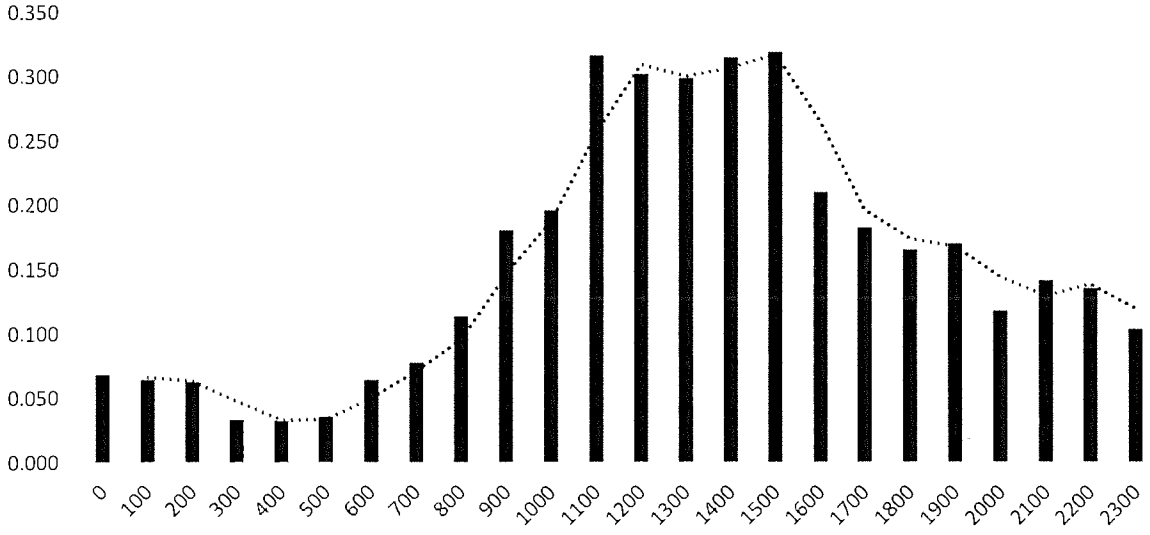


Figure 58: Clarkston RFD EMS Average Dispatches by Hour of Day (2021-2023)

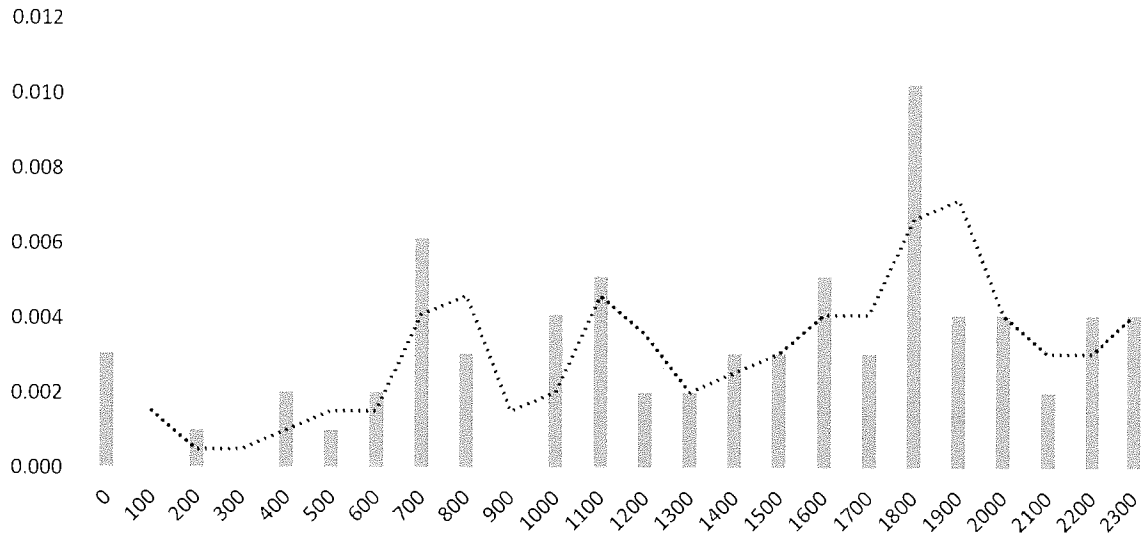


Figure 59: Hyalite RFD EMS Average Dispatches by Hour of Day (2021-2023)

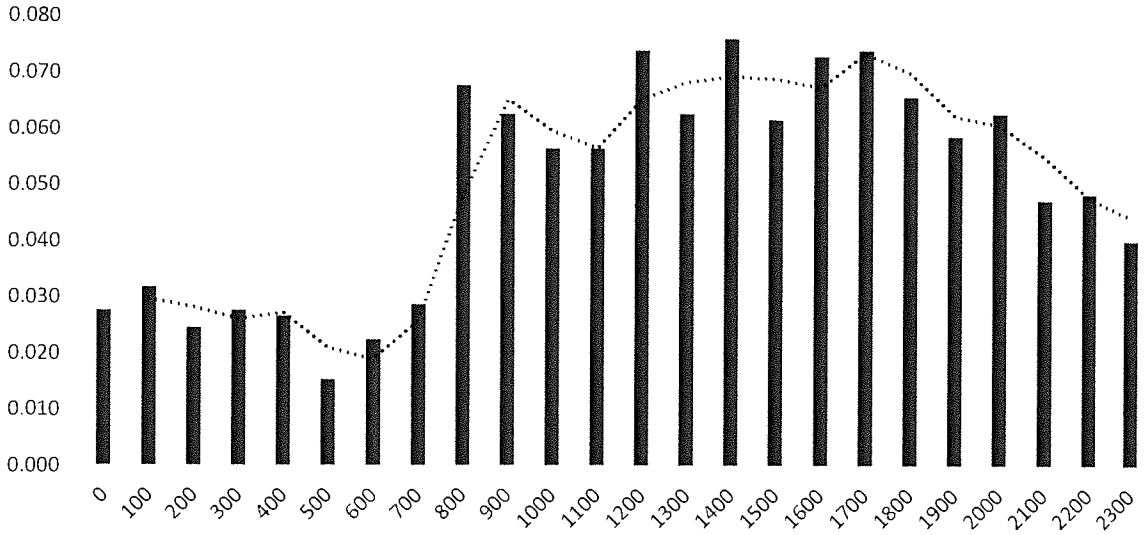


Figure 60: Amsterdam RFD EMS Average Dispatches by Hour of Day (2021-2023)

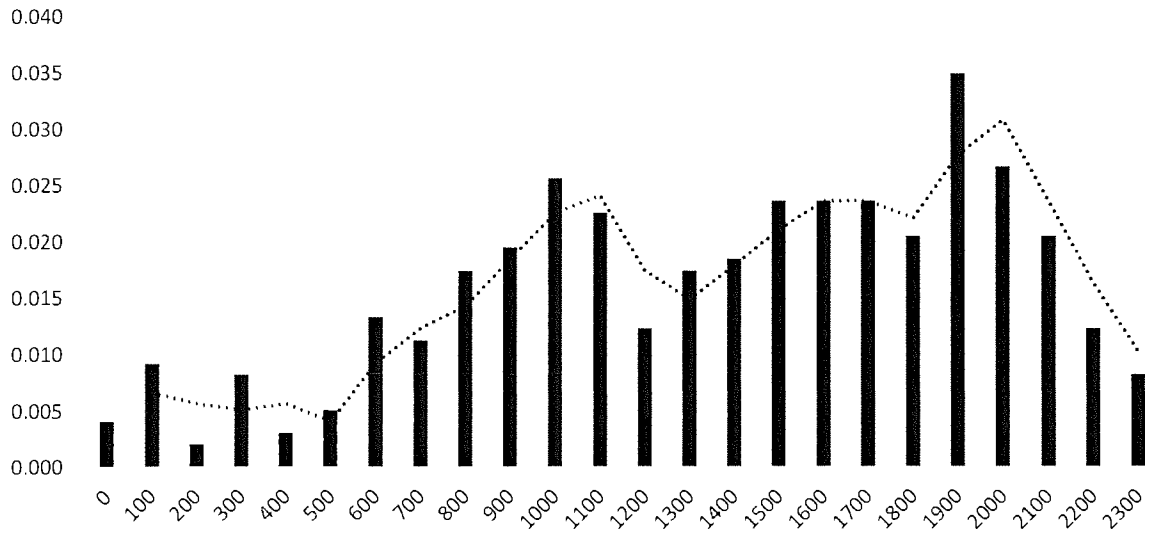


Figure 61: Central Valley FD EMS Average Dispatches by Hour of Day (2021-2023)

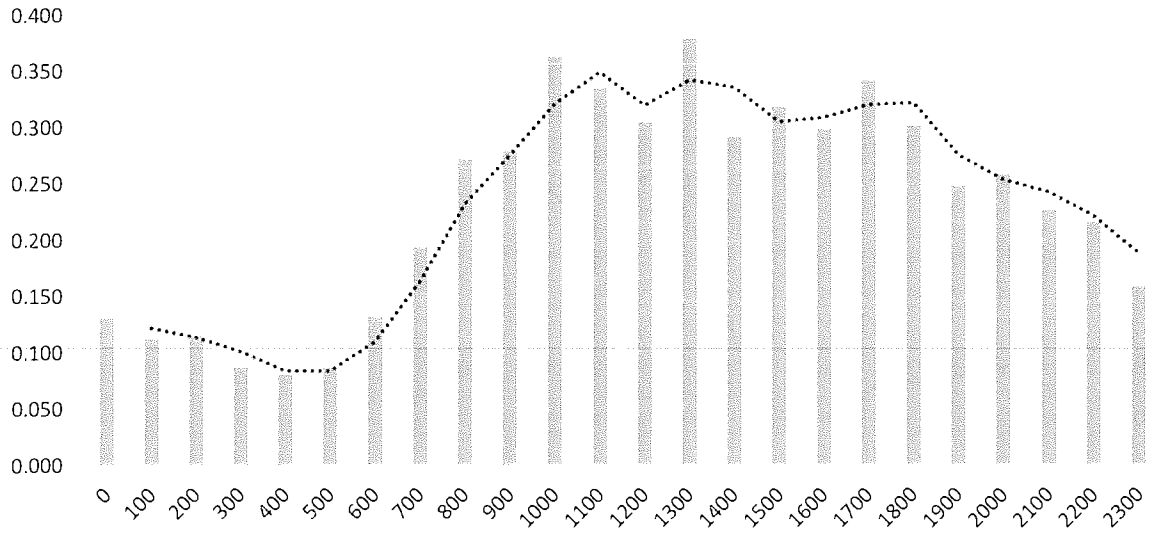


Figure 62: Three Forks Ambulance Average Dispatches by Hour of Day (2021-2023)

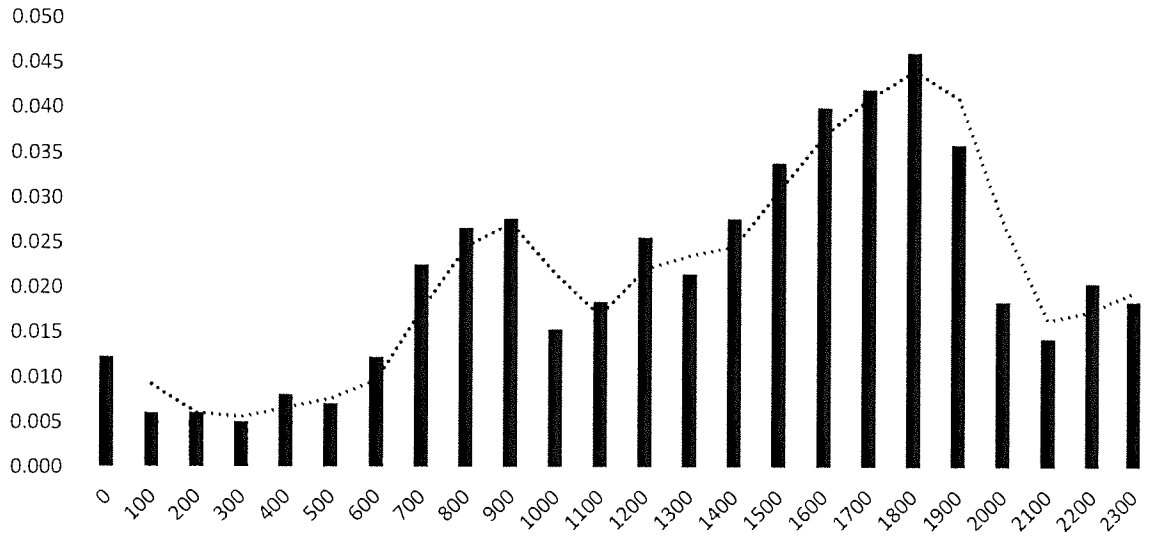


Figure 63: Aggregate Average Total Volume by Day of Week (2021-2023)

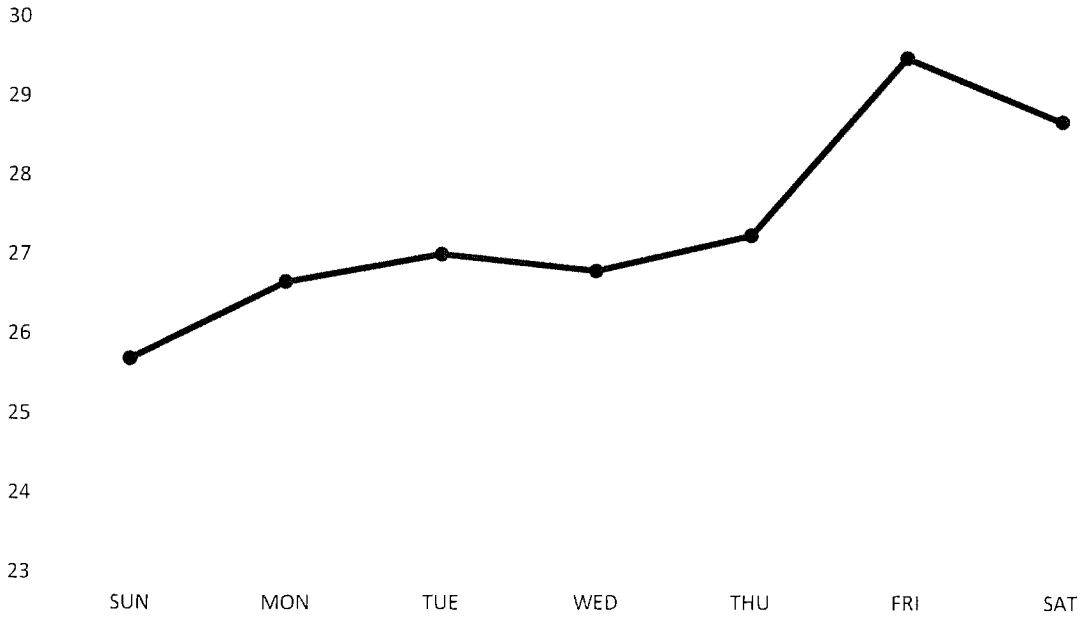


Figure 64: Aggregate Average Total Volume by Day of Week per Year

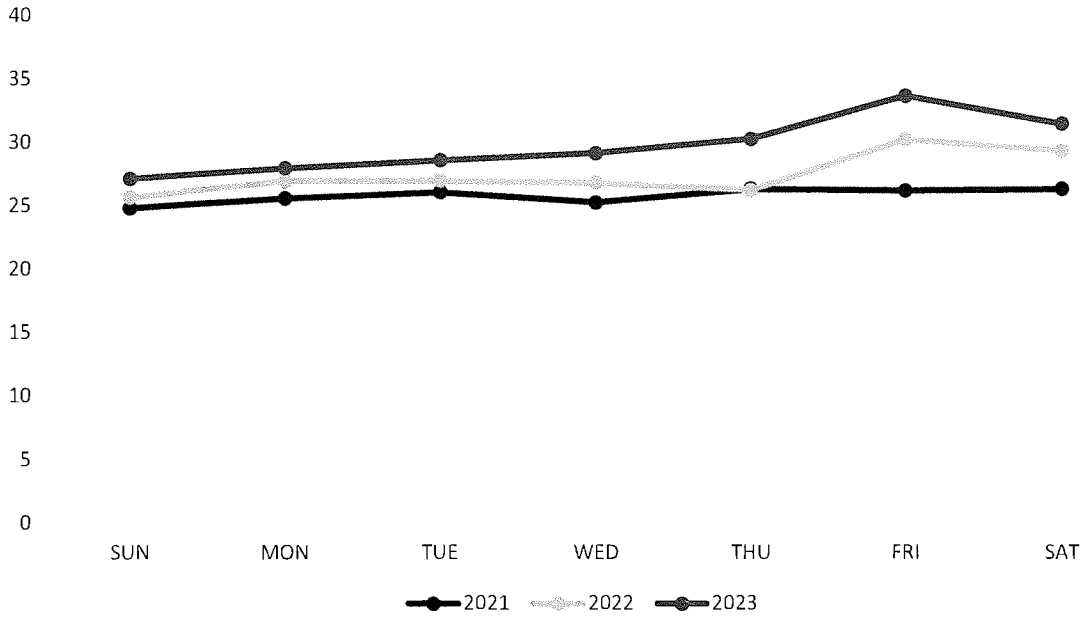
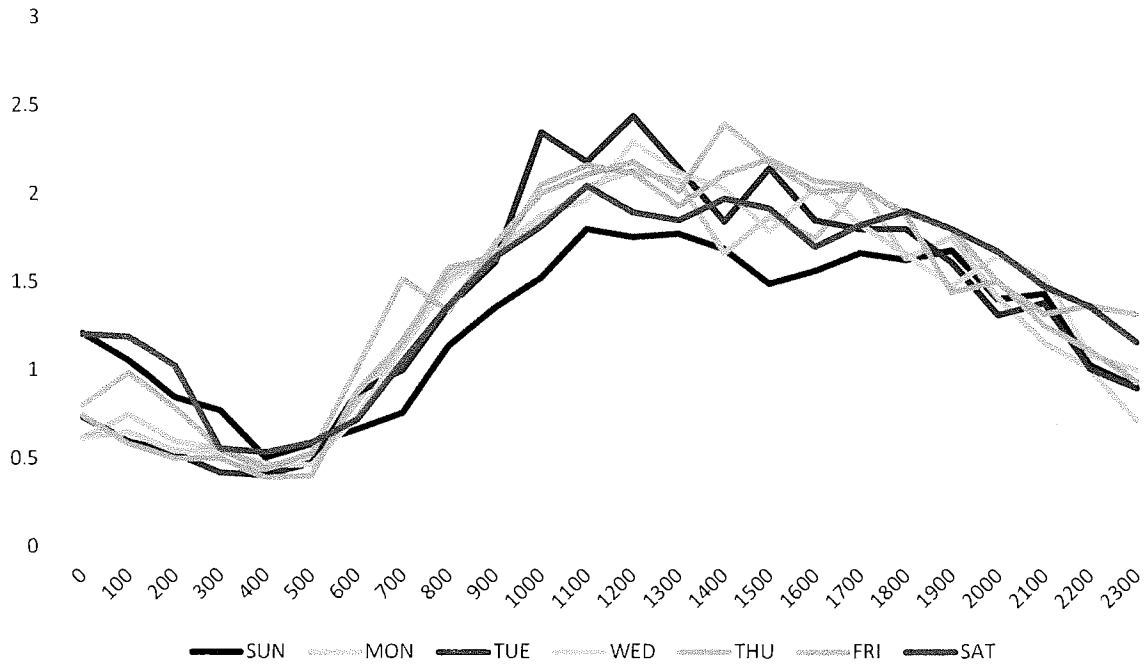


Figure 65: Aggregate Average Total Volume by Day of Week (Table)

	SUN	MON	TUE	WED	THU	FRI	SAT
Aggregate 2021							
Total	1289	1328	1354	1312	1367	1386	1366
Avg/Day	24.8	25.5	26.0	25.2	26.3	26.2	26.3
Aggregate 2022							
Total	1333	1400	1401	1394	1362	1570	1553
Avg/Day	25.6	26.9	26.9	26.8	26.2	30.2	29.3
Aggregate 2023							
Total	949	977	999	1019	1058	1143	1068
Avg/Day	27.1	27.9	28.5	29.1	30.2	33.6	31.4
Aggregate 21-23							
Total	3571	3705	3754	3725	3787	4099	3987
Avg/Day	25.7	26.7	27.0	26.8	27.2	29.5	28.7

Figure 66: Aggregate Average Total Volume by Day of Week and Hour of Day (2021-2023)



Total Busy Time

Total Busy Time is calculated from the difference in dispatch time to time available. Totals and aggregates were counted in hours. Averages and percentiles in minutes.

Figure 67: Aggregate Total Busy Time (Hours)

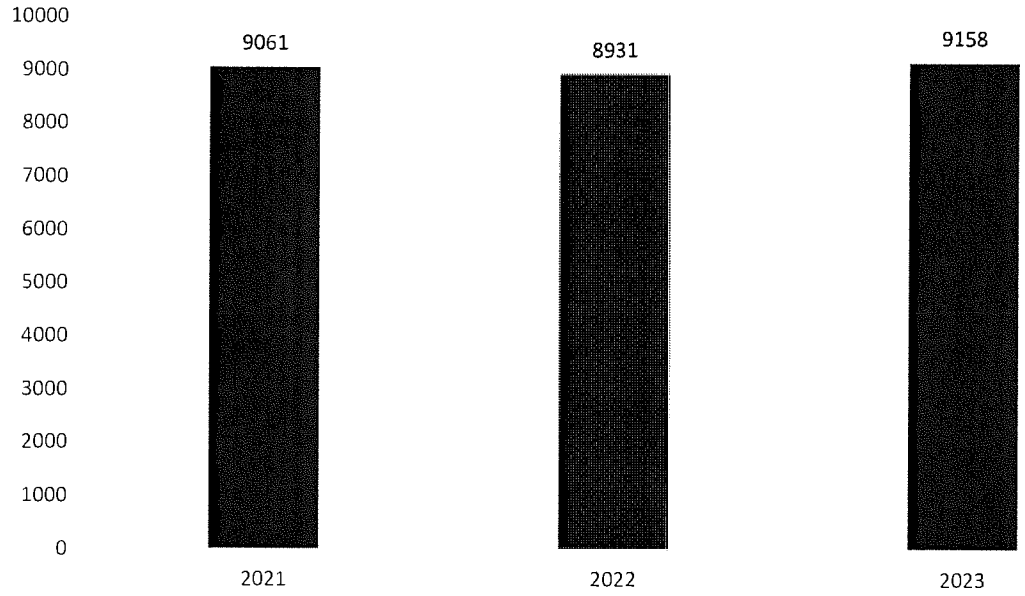


Figure 68: Aggregate Average Total Busy Time per Day (Minutes)

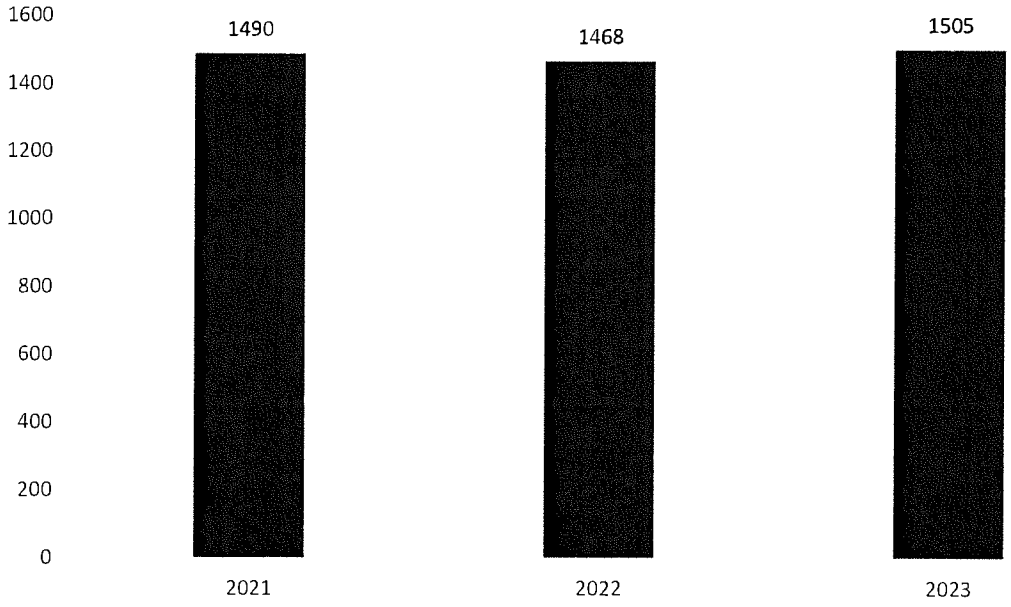


Figure 69: Aggregate Total Busy Time by Service (Hours)

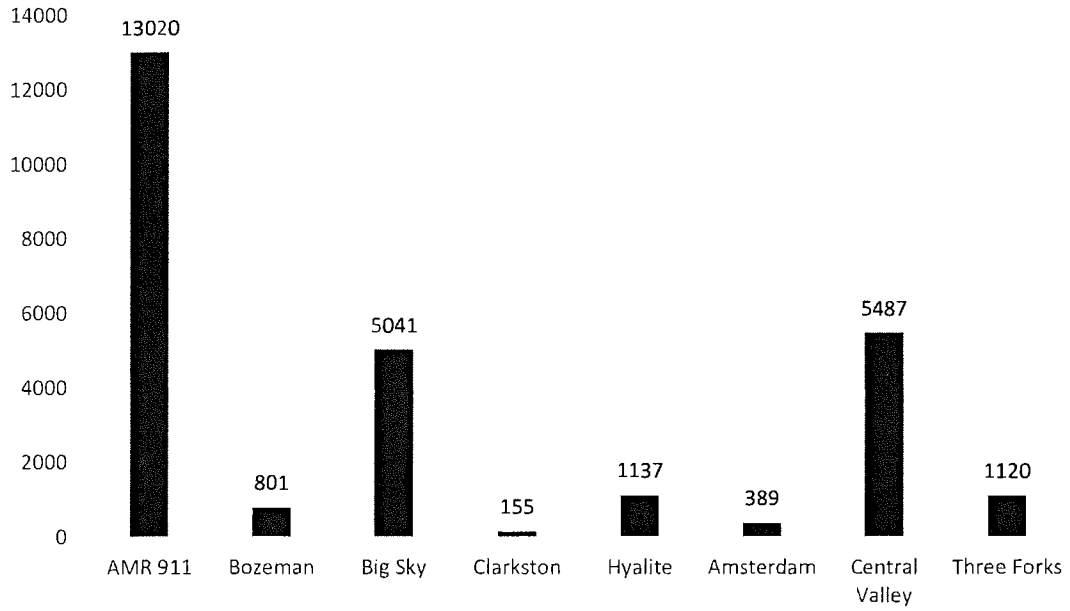


Figure 70: Aggregate Total Busy Time by Service and Year (Hours)

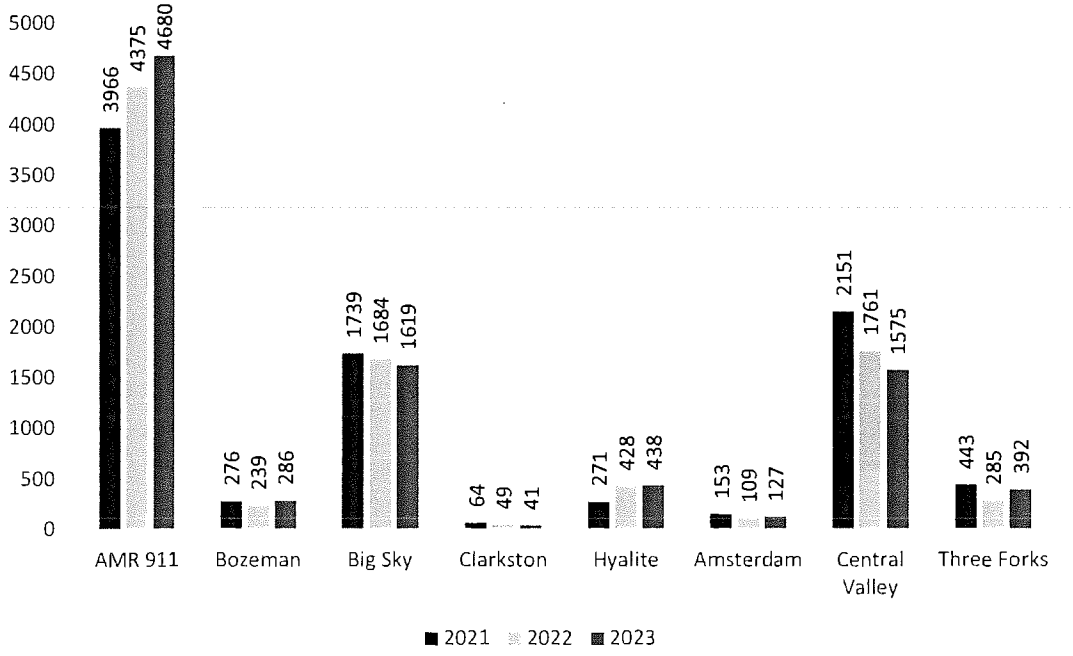


Figure 71: Aggregate Average Total Busy Time per Day by Service (Minutes)

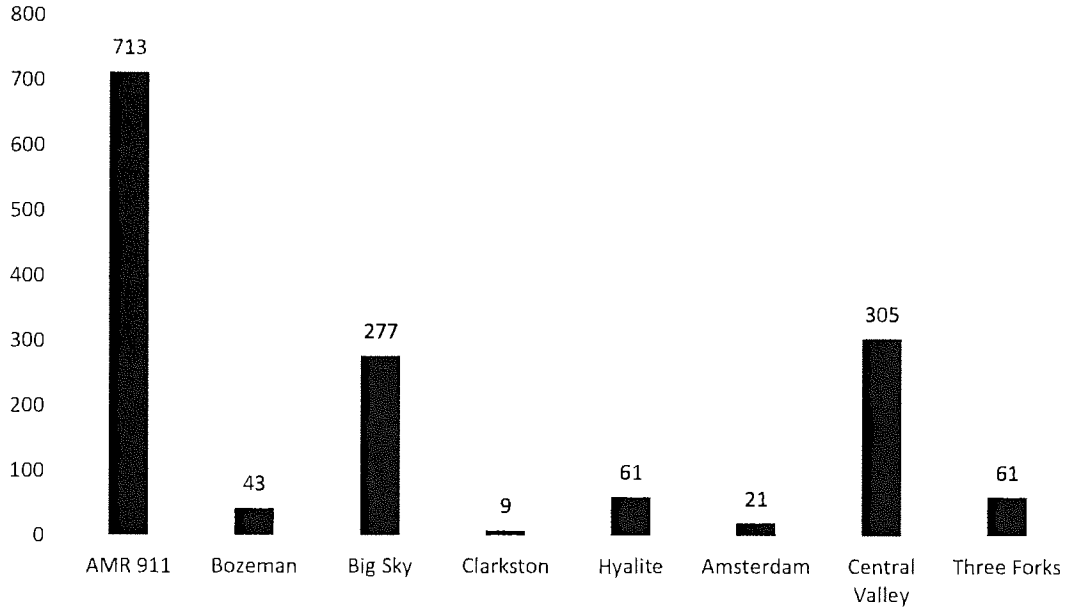


Figure 72: Average Total Busy Time per Day by Service and Year (Minutes)

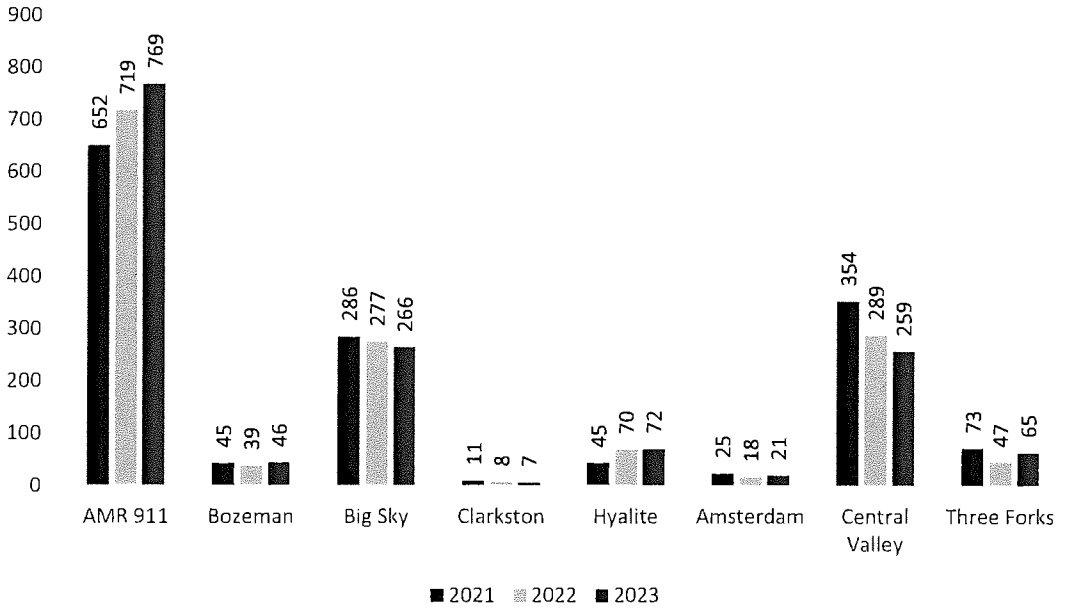


Figure 73: Aggregate Average Total Busy Time per Call by Service (Minutes)

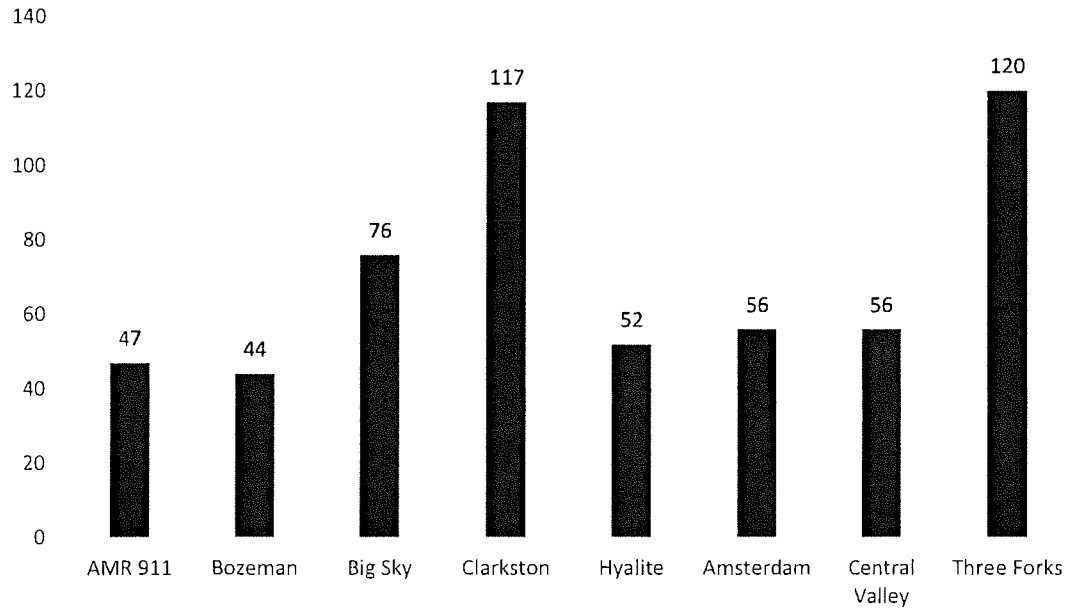


Figure 74: Average Total Busy Time per Call by Service and Year (Minutes)

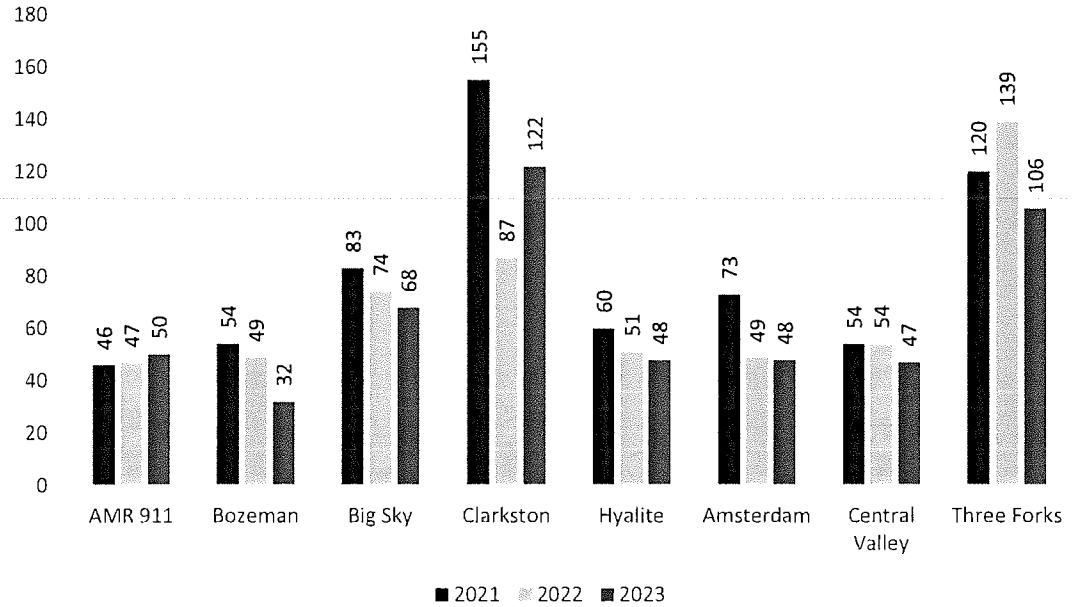


Figure 75: Total Busy Time (Table)

	2021	2022	2023	2021-2023
Aggregate Total (Hrs)	9061	8931	9158	27150
Average/Day (Mins)	1490	1468	1505	1488
AMR 911 Total (Hrs)	3966	4375	4680	13020
Average/Day (Mins)	652	719	769	713
Average/Call (Mins)	46	47	50	47
90th % (Mins)	76	75	77	76
Bozeman Total (Hrs)	276	239	286	801
Average/Day (Mins)	45	39	46	43
Average/Call (Mins)	54	49	32	44
90th % (Mins)	87	92	63	83
Big Sky Total (Hrs)	1739	1684	1619	5041
Average/Day (Mins)	286	277	266	277
Average/Call (Mins)	83	74	68	76
90th % (Mins)	155	146	118	141
Clarkston Total (Hrs)	64	49	41	155
Average/Day (Mins)	11	8	7	9
Average/Call (Mins)	155	87	122	117
90th % (Mins)	277	161	348	241
Hyalite Total (Hrs)	271	428	438	1137
Average/Day (Mins)	45	70	72	61
Average/Call (Mins)	60	51	48	52
90th % (Mins)	92	73	79	85

Amsterdam Total (Hrs)	153	109	127	389
Average/Day (Mins)	25	18	21	21
Average/Call (Mins)	73	49	48	56
90th % (Mins)	119	87	69	99
Central Valley Total (Hrs)	2151	1761	1575	5487
Average/Day (Mins)	354	289	259	305
Average/Call (Mins)	64	54	47	56
90th % (Mins)	99	83	78	86
Three Forks Total (Hrs)	443	285	392	1120
Average/Day (Mins)	73	47	65	61
Average/Call (Mins)	120	139	106	120
90th % (Mins)	237	298	214	243

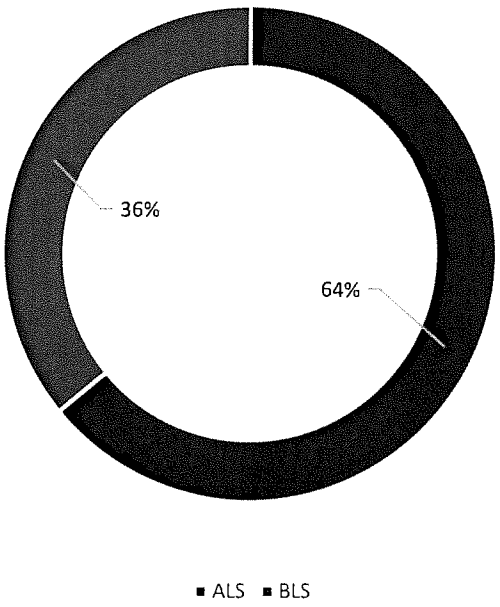
DISPATCH AND DISPOSITIONS

Volumes for Level of Service Requested as well as Disposition were available from the AMR dataset.

Normally disposition from one agency could theoretically be extrapolated onto other agencies volumes. This was not performed with Gallatin County for several reasons. Big Sky and AMR perform a large amount of pre-scheduled standbys for events and ski patrols. Also, within Bozeman there are often city and AMR units responding to the same call. Without Disposition data from Bozeman it is impossible to tell what segment of calls they transported a patient on.

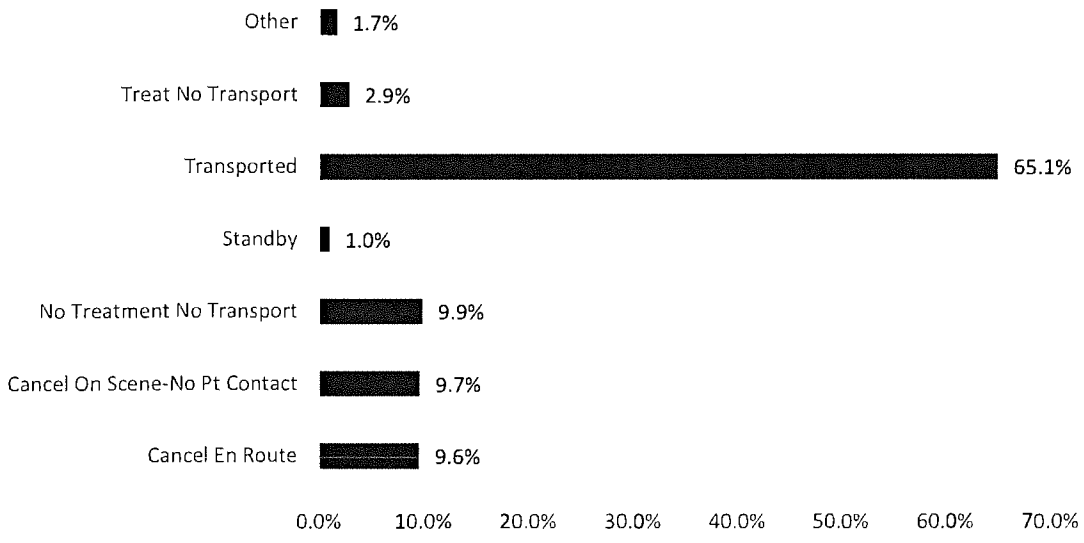
The AMR data will be displayed here as a general guide to system performance but should not be taken as concrete when applied to other agencies.

Figure 76: Level of Service Requested by Dispatch



**Note that this does not indicate the level of service provided to the patient.

Figure 77: Disposition Breakdown



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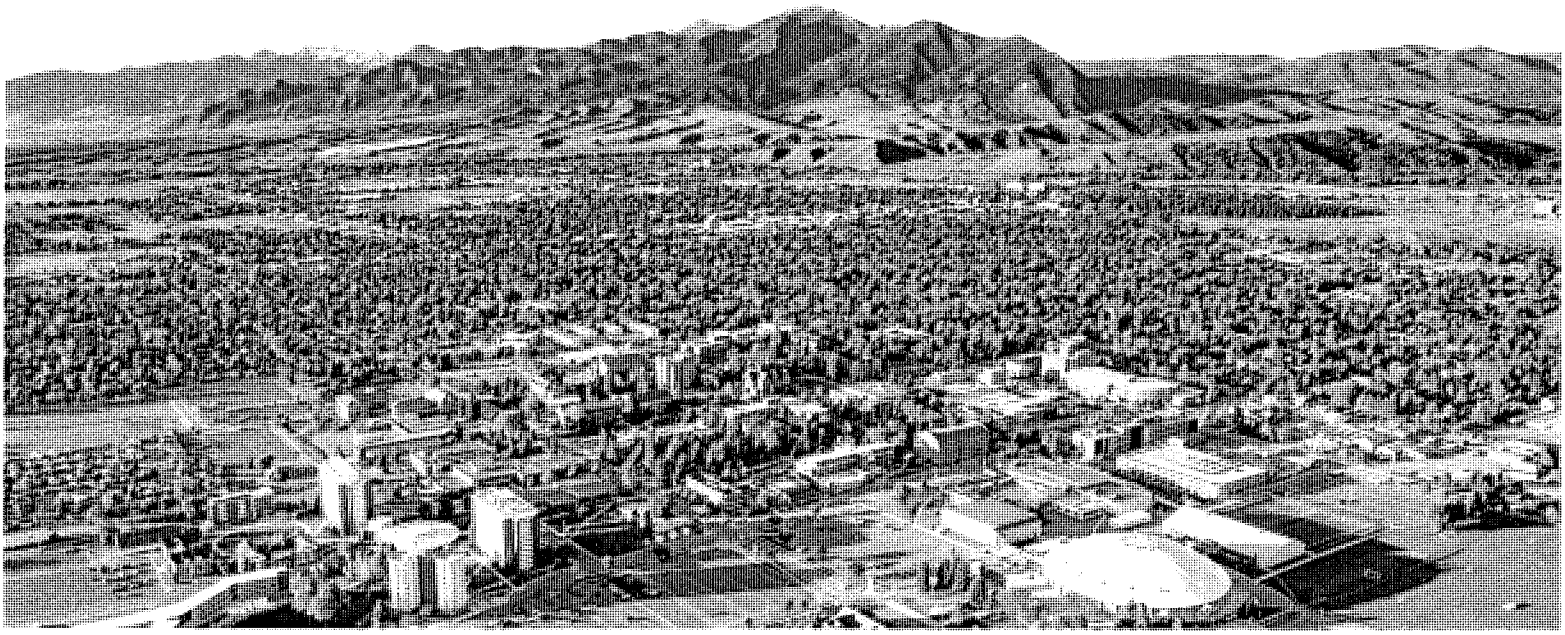
Gallatin County Montana

Data Analysis - West Yellowstone



Gallatin County Emergency Management
Preparing Our Community

TOTAL VOLUME

Figure 1: West Yellowstone Volume by Quarter

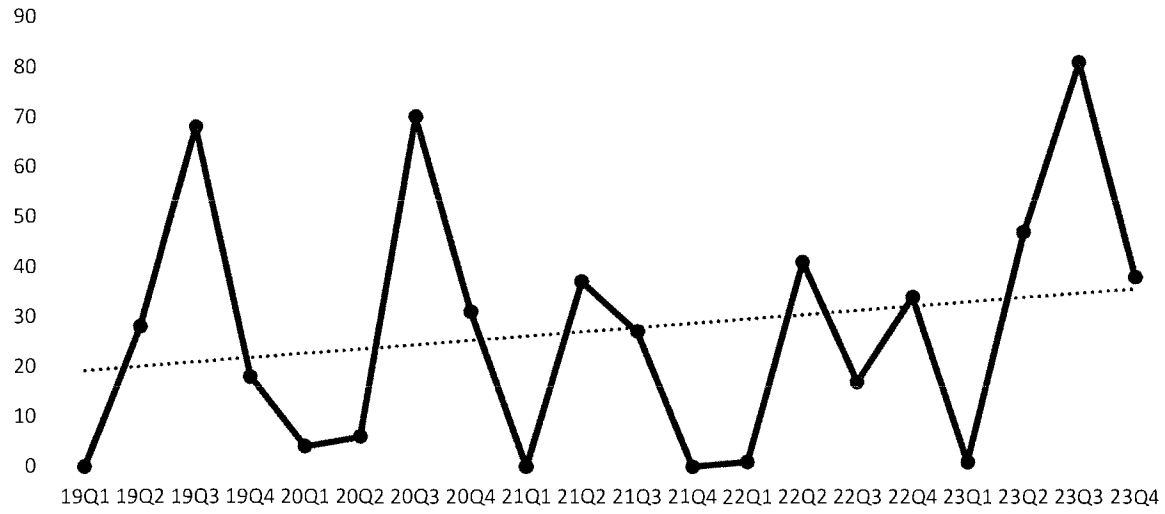


Figure 2: West Yellowstone Volume by Quarter (Table)

2019	Q1	Q2	Q3	Q4	Total
Total Dispatches	0	28	68	18	114
Average Per Day	0.00	0.31	0.74	0.20	0.31
2020	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	4	6	70	31	111
Average Per Day	0.04	0.07	0.76	0.34	0.30
2021	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	0	37	27	0	64
Average Per Day	0.00	0.41	0.29	0.00	0.18
2022	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	1	41	17	34	93
Average Per Day	0.01	0.45	0.18	0.37	0.25
2023	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	1	47	81	38	167
Average Per Day	0.01	0.52	0.88	0.41	0.46

Figure 3: Adjusted Aggregate Call Volume by Quarter (Previously Figure 1)

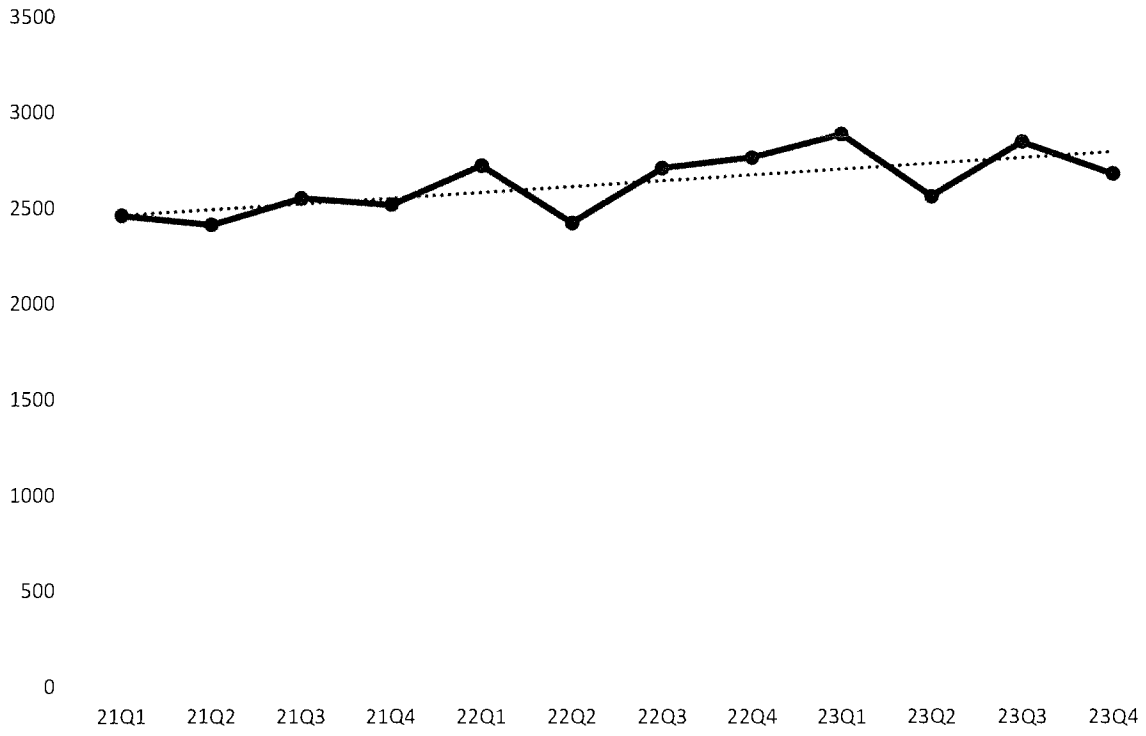


Figure 4: Adjusted Aggregate Call Volume by Quarter (Table) (Previously Figure 2)

2021	Q1	Q2	Q3	Q4	Total
Total Dispatches	2462	2413	2554	2520	9949
Average Per Day	27.36	26.52	27.76	27.39	27.26
2022	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	2724	2424	2710	2766	10624
Average Per Day	30.27	26.64	29.46	30.07	29.11
2023	**Q1**	**Q2**	**Q3**	**Q4**	**Total**
Total Dispatches	2886	2563	2848	2680	10977
Average Per Day	32.07	28.16	30.95	29.13	30.07

Figure 5: West Yellowstone Volume by Month

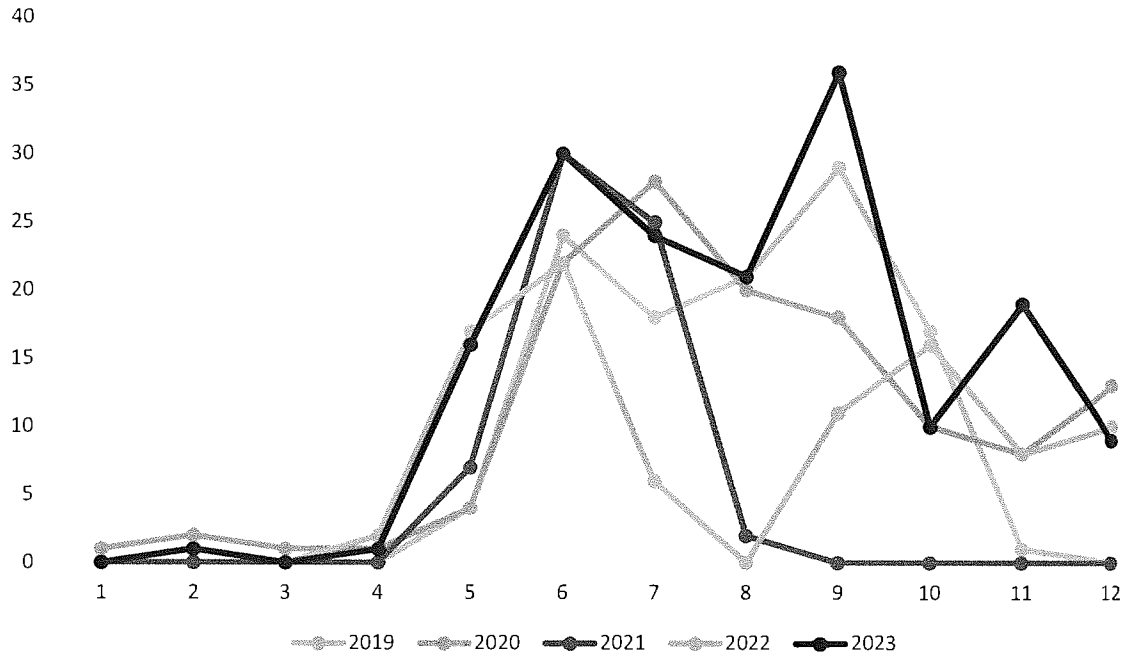


Figure 6: West Yellowstone Average Dispatches per Day by Month

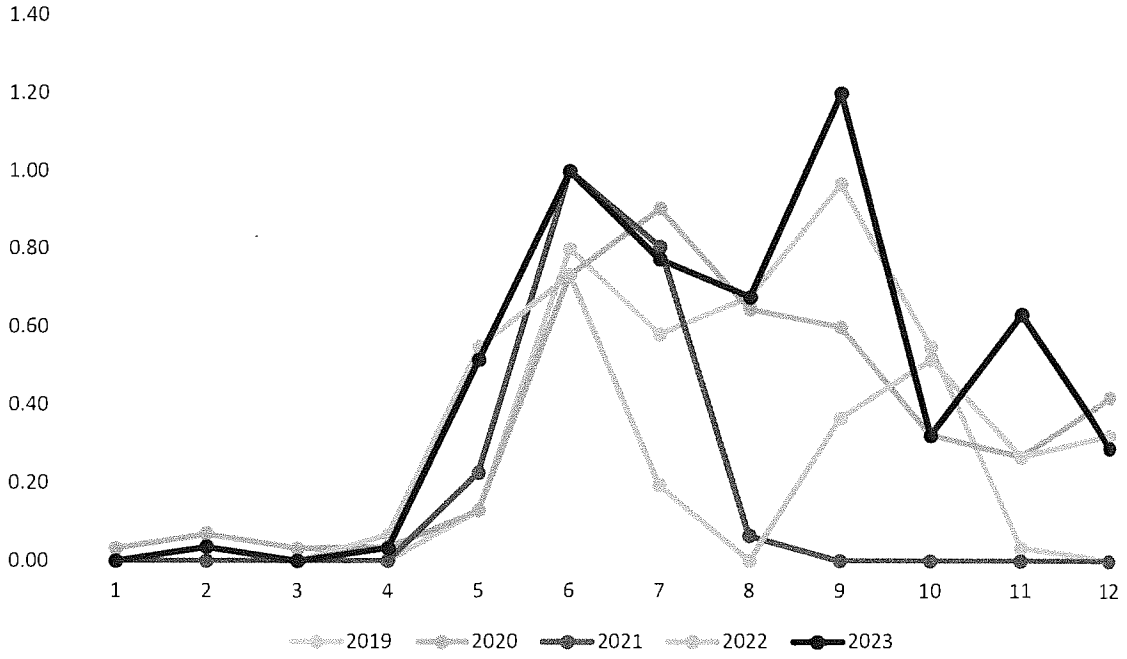


Figure 7: West Yellowstone Volume by Month (Table)

2019	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Total	0	0	0	0	4	24	18	21	29	17	1	0
Avg/Day	0.00	0.00	0.00	0.00	0.13	0.80	0.58	0.68	0.97	0.55	0.03	0.00
2020	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
Total	1	2	1	1	4	22	28	20	18	10	8	13
Avg/Day	0.03	0.07	0.03	0.03	0.13	0.73	0.90	0.65	0.60	0.32	0.27	0.42
2021	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
Total	0	0	0	0	7	30	25	2	0	0	0	0
Avg/Day	0.00	0.00	0.00	0.00	0.23	1.00	0.81	0.06	0.00	0.00	0.00	0.00
2022	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
Total	0	1	0	2	17	22	6	0	11	16	8	10
Avg/Day	0.00	0.04	0.00	0.07	0.55	0.73	0.19	0.00	0.37	0.52	0.27	0.32
2023	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
Total	0	1	0	1	16	30	24	21	36	10	19	9
Avg/Day	0.00	0.04	0.00	0.03	0.52	1.00	0.77	0.68	1.20	0.32	0.63	0.29

Figure 8: Adjusted Aggregate Total Volume by Month (Table) (Previously Figure 5)

2021	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Total	807	842	813	777	734	902	939	785	830	812	765	943
Avg/Day	26.03	30.07	26.23	25.90	23.68	30.07	30.29	25.32	27.67	26.19	25.50	30.42
2022	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
Total	892	933	899	799	764	861	883	906	921	874	851	1041
Avg/Day	28.77	33.32	29.00	26.63	24.65	28.70	28.48	29.23	30.70	28.19	28.37	33.58
2023	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
Total	965	911	1010	772	890	901	979	917	952	873	840	968
Avg/Day	31.13	32.54	32.58	25.73	28.71	30.03	31.58	29.58	31.72	28.15	28.00	31.22

TEMPORAL ANALYSIS

Figure 9: West Yellowstone Average Volume per Hour of Day (2019-2023

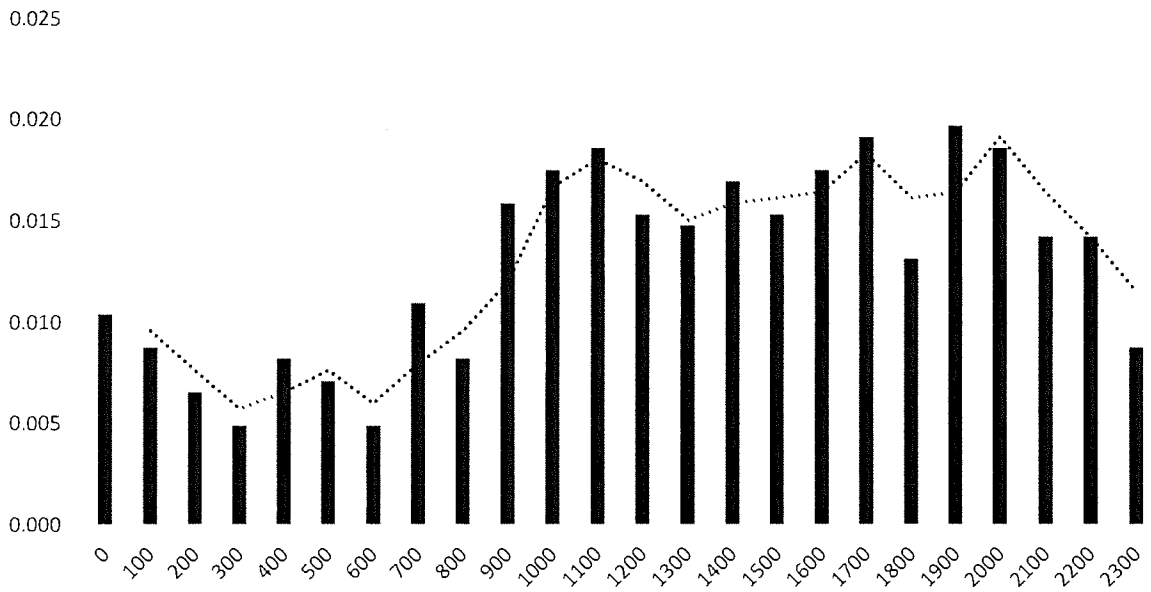


Figure 10: Adjusted Aggregate Average Total Volume per Hour of Day (2021-2023)

(Previously Figure 55)

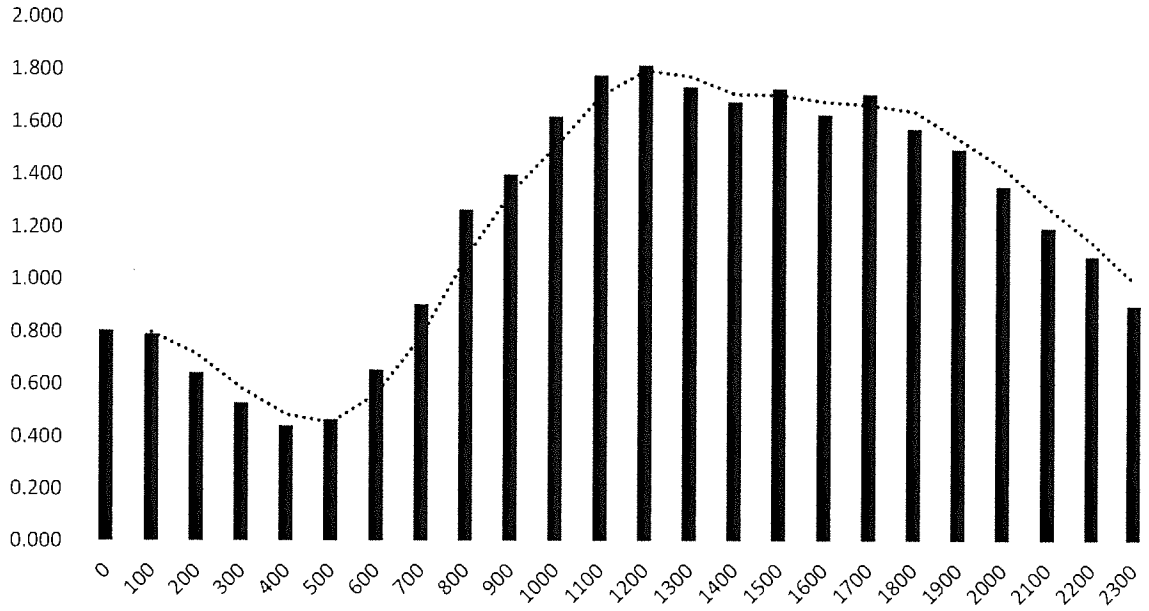


Figure 11: West Yellowstone Average Total Volume per Hour of Day (Table)

	0	100	200	300	400	500	600	700
2019	4	5	3	3	3	4	3	2
Avg/Hr	0.011	0.014	0.008	0.008	0.008	0.011	0.008	0.005
2020	4	4	1	1	4	0	2	4
Avg/Hr	0.011	0.011	0.003	0.003	0.011	0.000	0.005	0.011
2021	2	1	1	2	0	5	1	6
Avg/Hr	0.005	0.003	0.003	0.005	0.000	0.014	0.003	0.016
2022	3	1	4	1	2	3	0	2
Avg/Hr	0.008	0.003	0.011	0.003	0.005	0.008	0.000	0.005
2023	6	5	3	2	6	1	3	6

Avg/Hr	0.016	0.014	0.008	0.005	0.016	0.003	0.008	0.016
Agg 19-23	19	16	12	9	15	13	9	20
Avg/Hr	0.010	0.009	0.007	0.005	0.008	0.007	0.005	0.011
	800	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**
2019	4	5	7	7	4	4	5	5
Avg/Hr	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01
2020	1	10	7	7	7	8	12	11
Avg/Hr	0	0.03	0.02	0.02	0.02	0.02	0.03	0.03
2021	3	1	4	0	2	2	1	3
Avg/Hr	0.008	0.003	0.011	0.000	0.005	0.005	0.003	0.008
2022	2	4	8	8	7	3	4	4
Avg/Hr	0.005	0.011	0.022	0.022	0.019	0.008	0.011	0.011
2023	5	9	6	12	8	10	9	5
Avg/Hr	0.014	0.025	0.016	0.033	0.022	0.027	0.025	0.014
Agg 21-23	15	29	32	34	28	27	31	28
Avg/Hr	0.008	0.016	0.018	0.019	0.015	0.015	0.017	0.015
	1600	**1700**	**1800**	**1900**	**2000**	**2100**	**2200**	**2300**
2019	6	9	4	5	8	7	2	5
Avg/Hr	0.02	0.02	0.01	0.01	0.02	0.02	0.01	0.01
2020	7	5	6	4	5	6	8	4
Avg/Hr	0.02	0.01	0.02	0.01	0.01	0.02	0.02	0.01
2021	5	2	3	6	5	5	4	0
Avg/Hr	0.014	0.005	0.008	0.016	0.014	0.014	0.011	0.000
2022	4	7	5	3	6	2	7	3

Avg/Hr	0.011	0.019	0.014	0.008	0.016	0.005	0.019	0.008
2023	10	12	6	18	10	6	5	4
Avg/Hr	0.027	0.033	0.016	0.049	0.027	0.016	0.014	0.011
Agg 21-23	32	35	24	36	34	26	26	16
Avg/Hr	0.018	0.019	0.013	0.020	0.019	0.014	0.014	0.009

Figure 12: Adjusted Aggregate Average Total Volume per Hour of Day (Table) (Previously Figure 59)

	0	100	200	300	400	500	600	700
Agg 2021	268	281	237	166	153	169	219	335
Avg/Hr	0.734	0.770	0.649	0.455	0.419	0.463	0.600	0.918
Agg 2022	276	265	232	212	157	174	234	318
Avg/Hr	0.756	0.726	0.636	0.581	0.430	0.477	0.641	0.871
Agg 2023	210	225	159	137	121	112	186	231
Avg/Hr	0.856	0.919	0.650	0.561	0.490	0.460	0.761	0.942
Agg 21-23	794	780	632	519	438	459	644	890
Avg/Hr	0.807	0.794	0.644	0.529	0.443	0.465	0.658	0.905
	800	900	1000	1100	1200	1300	1400	1500
Agg 2021	447	458	568	639	604	596	546	580
Avg/Hr	1.225	1.255	1.556	1.751	1.655	1.633	1.496	1.589
Agg 2022	457	527	596	654	686	655	637	607
Avg/Hr	1.252	1.444	1.633	1.792	1.879	1.795	1.745	1.663
Agg 2023	330	378	415	440	479	439	452	496
Avg/Hr	1.351	1.543	1.700	1.794	1.960	1.793	1.848	2.034

Agg 21-23	1239	1378	1594	1747	1780	1702	1652	1699
Avg/Hr	1.266	1.402	1.623	1.779	1.816	1.736	1.683	1.733
	1600	**1700**	**1800**	**1900**	**2000**	**2100**	**2200**	**2300**
Agg 2021	565	549	540	476	496	420	356	281
Avg/Hr	1.548	1.504	1.479	1.304	1.359	1.151	0.975	0.770
Agg 2022	565	625	565	539	461	395	424	363
Avg/Hr	1.548	1.712	1.548	1.477	1.263	1.082	1.162	0.995
Agg 2023	457	489	430	445	365	350	282	231
Avg/Hr	1.867	1.996	1.761	1.807	1.488	1.432	1.154	0.945
Agg 21-23	1600	1677	1545	1469	1335	1178	1072	884
Avg/Hr	1.629	1.707	1.576	1.492	1.356	1.198	1.089	0.901

Figure 13: West Yellowstone Average Total Volume by Day of Week (2019-2023)

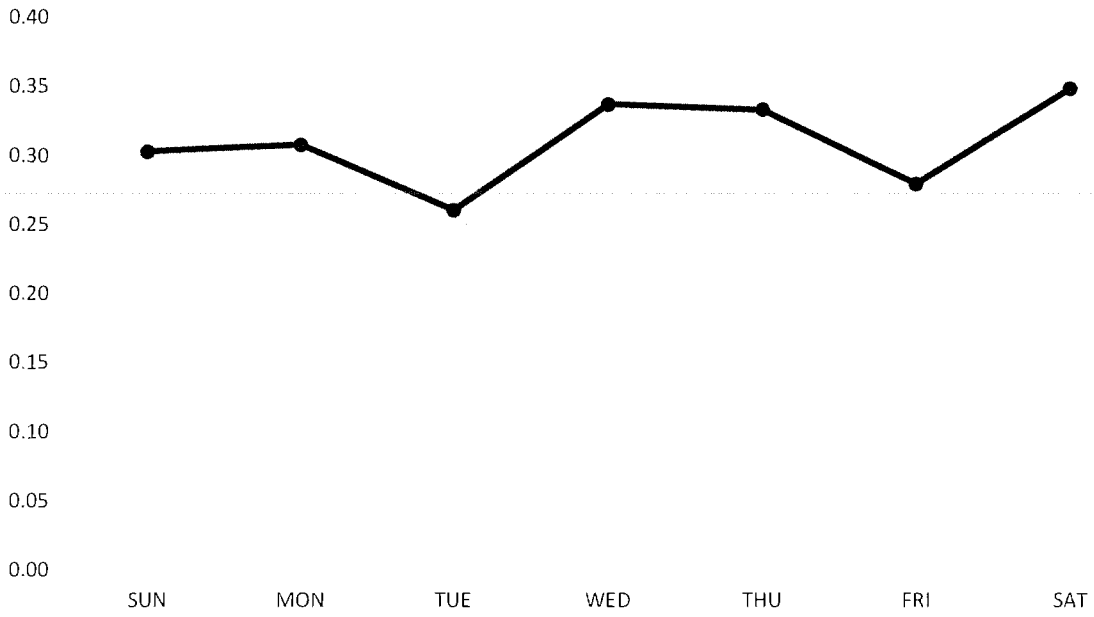


Figure 14: West Yellowstone Average Total Volume by Day of Week per Year

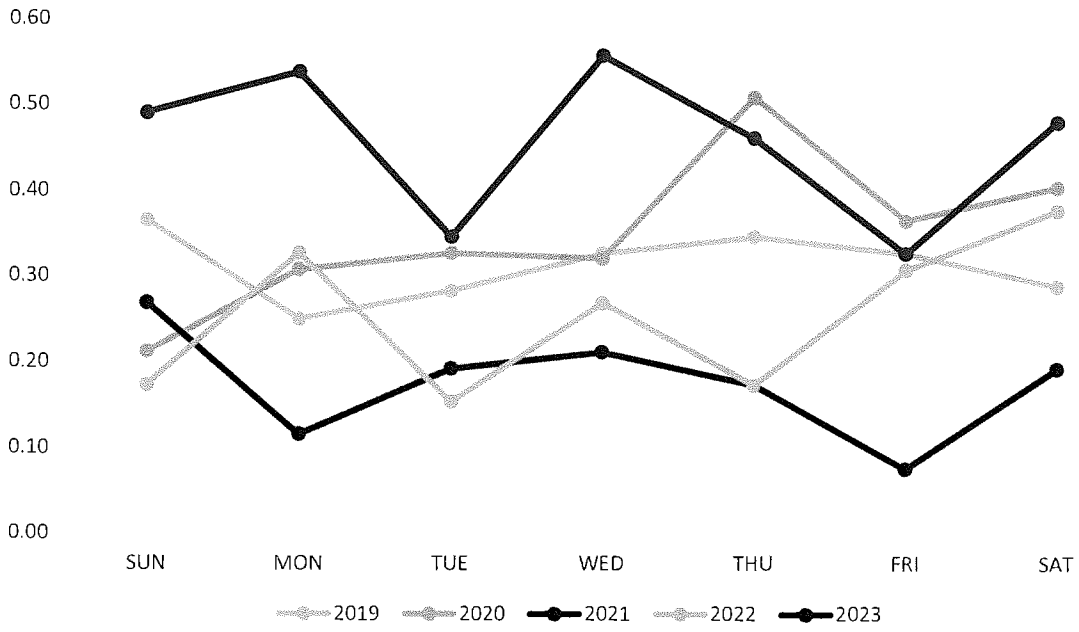


Figure 15: West Yellowstone Volume by Day of Week and Year (Table)

	SUN	MON	TUE	WED	THU	FRI	SAT
2019							
Total	19	13	15	17	18	17	15
Avg/Day	0.37	0.25	0.28	0.33	0.35	0.33	0.29
2020							
Total	11	16	17	17	27	19	21
Avg/Day	0.21	0.31	0.33	0.32	0.51	0.37	0.40
2021							
Total	14	6	10	11	9	4	10
Avg/Day	0.27	0.12	0.19	0.21	0.17	0.08	0.19
2022							
Total	9	17	8	14	9	16	20
Avg/Day	0.17	0.33	0.15	0.27	0.17	0.31	0.38
2023							

Total	26	28	18	29	24	17	25
Avg/Day	0.49	0.54	0.35	0.56	0.46	0.33	0.48
2019-2023							
Total	79	80	68	88	87	73	91
Avg/Day	0.30	0.31	0.26	0.34	0.33	0.28	0.35

Figure 16: Adjusted Aggregate Average Total Volume by Day of Week (Table) (Previously Figure 71)

		SUN	MON	TUE	WED	THU	FRI	SAT
Aggregate	2021							
Total		1376	1389	1435	1381	1445	1466	1457
Avg/Day		26.5	26.7	27.6	26.6	27.8	27.7	28.0
Aggregate	2022							
Total		1397	1506	1468	1476	1441	1665	1671
Avg/Day		26.9	29.0	28.2	28.4	27.7	32.0	31.5
Aggregate	2023							
Total		1052	1073	1076	1119	1146	1219	1174
Avg/Day		29.8	30.4	30.6	31.7	32.5	35.7	34.3
Aggregate	21-23							
Total		3855	3997	4011	4010	4077	4386	4338
Avg/Day		27.5	28.5	28.6	28.6	29.0	31.3	30.9

Total Busy Time

Figure 17: West Yellowstone Total Busy Time (Hours)

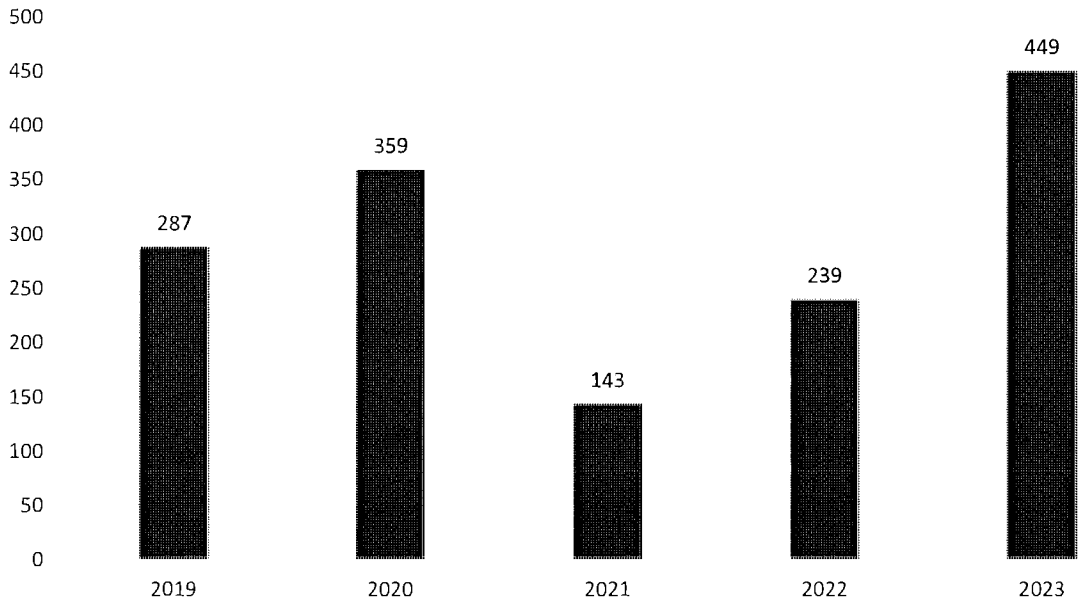


Figure 18: Adjusted Aggregate Total Busy Time (Hours) (Previously Figure 73)

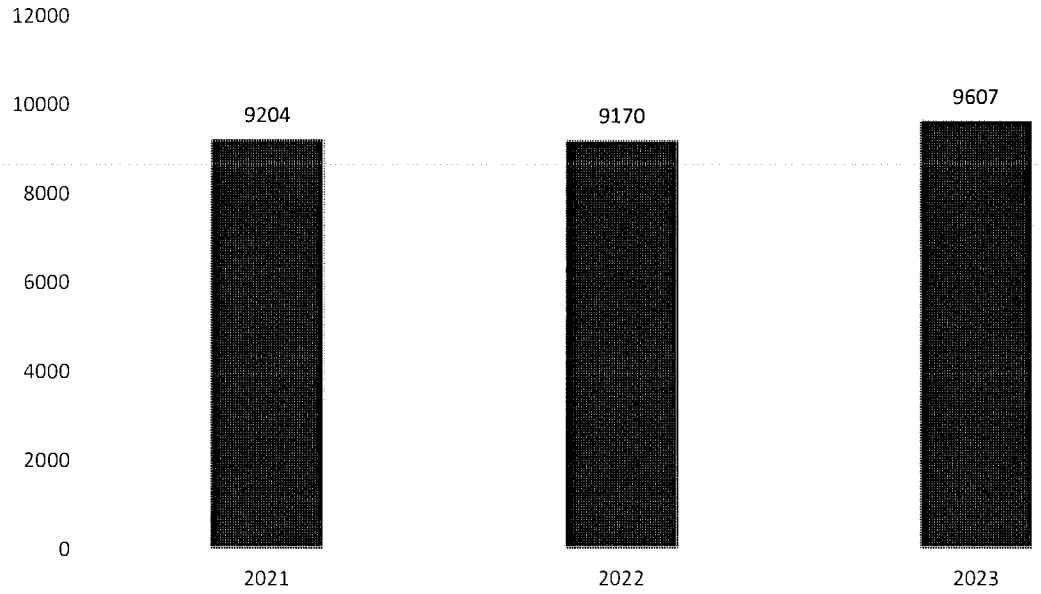


Figure 19: West Yellowstone Average Total Busy Time per Day (Minutes)

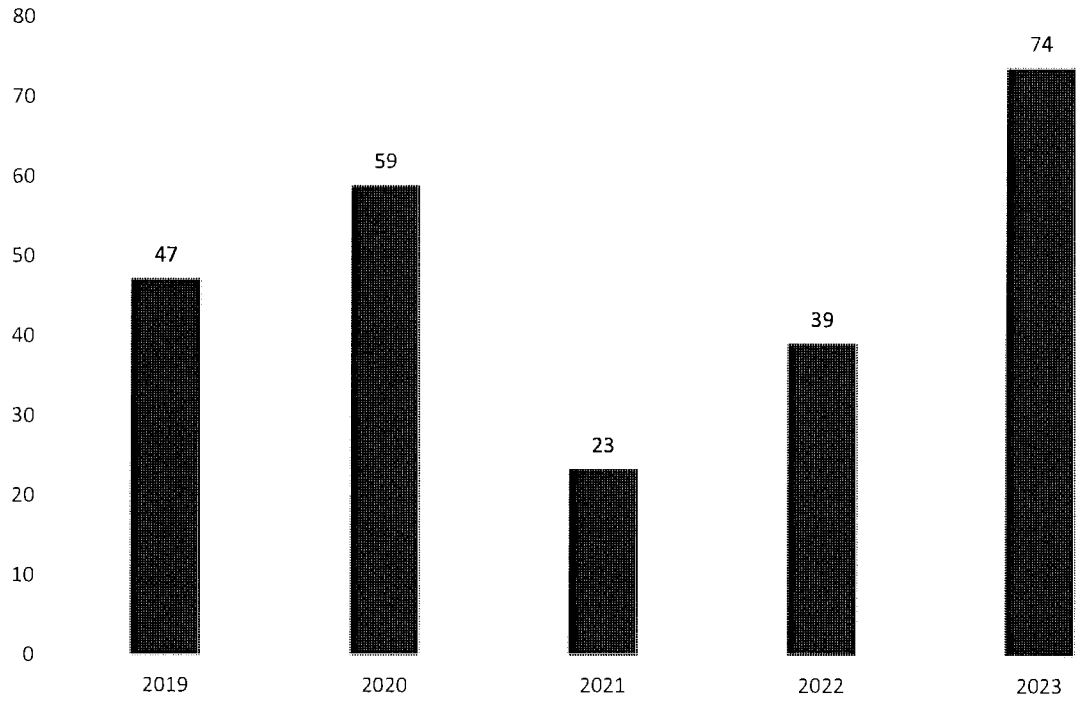


Figure 20: Adjusted Aggregate Average Total Busy Time per Day (Minutes) (Previously Figure 74)

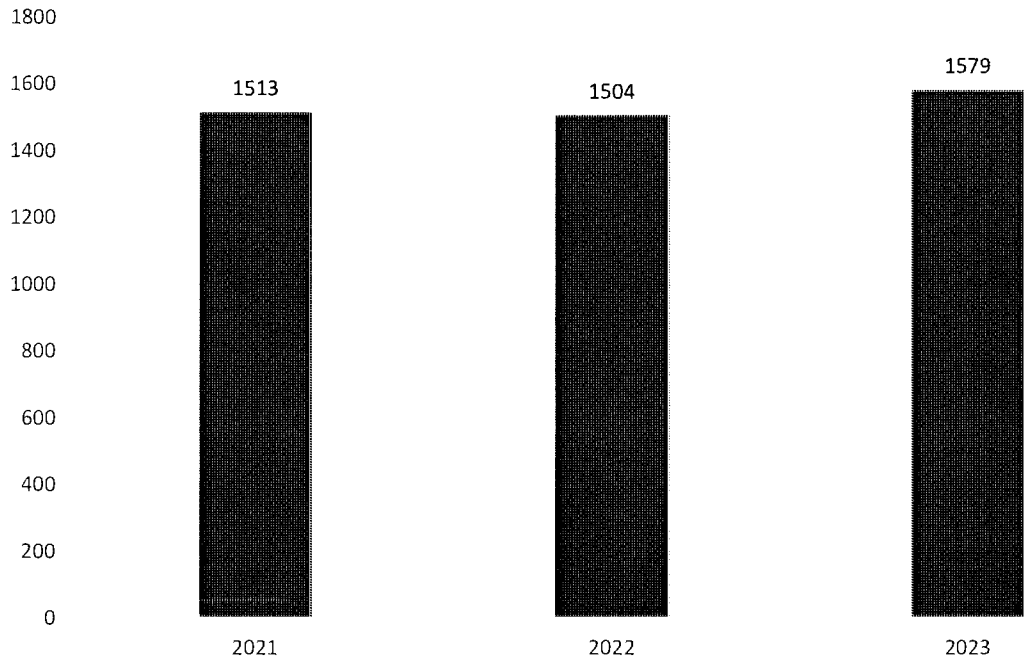


Figure 21: Adjusted Aggregate Total Busy Time by Service (Hours) (Previously Figure 75)

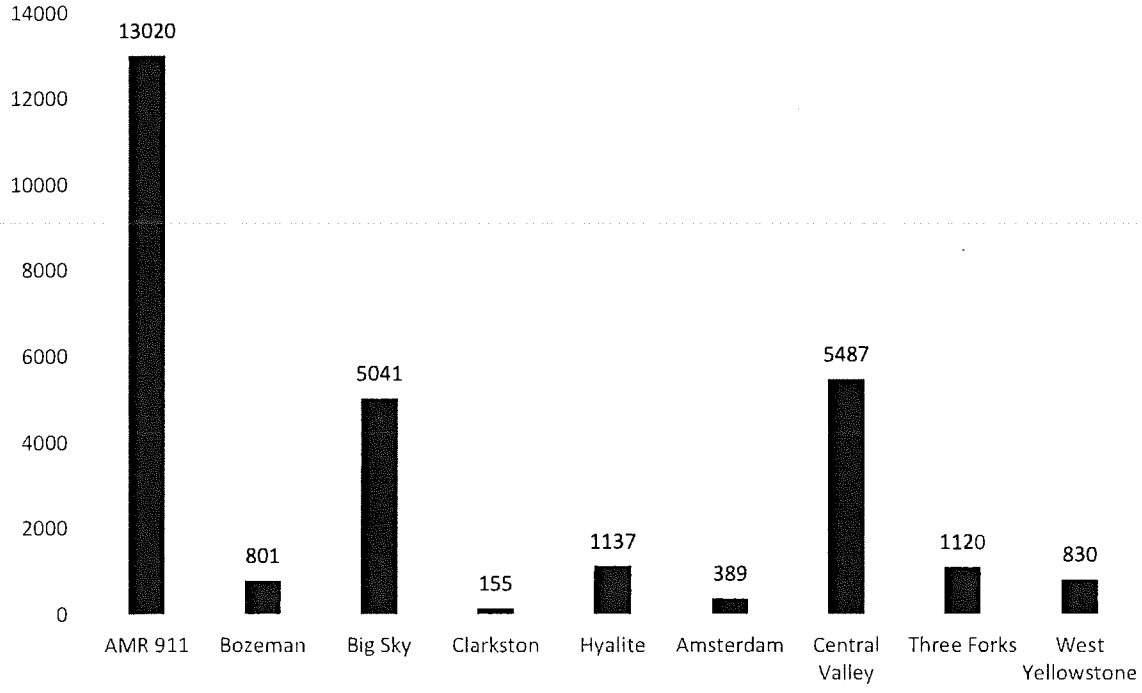


Figure 22: Adjusted Aggregate Total Busy Time by Service and Year (Hours) (Previously Figure 76)

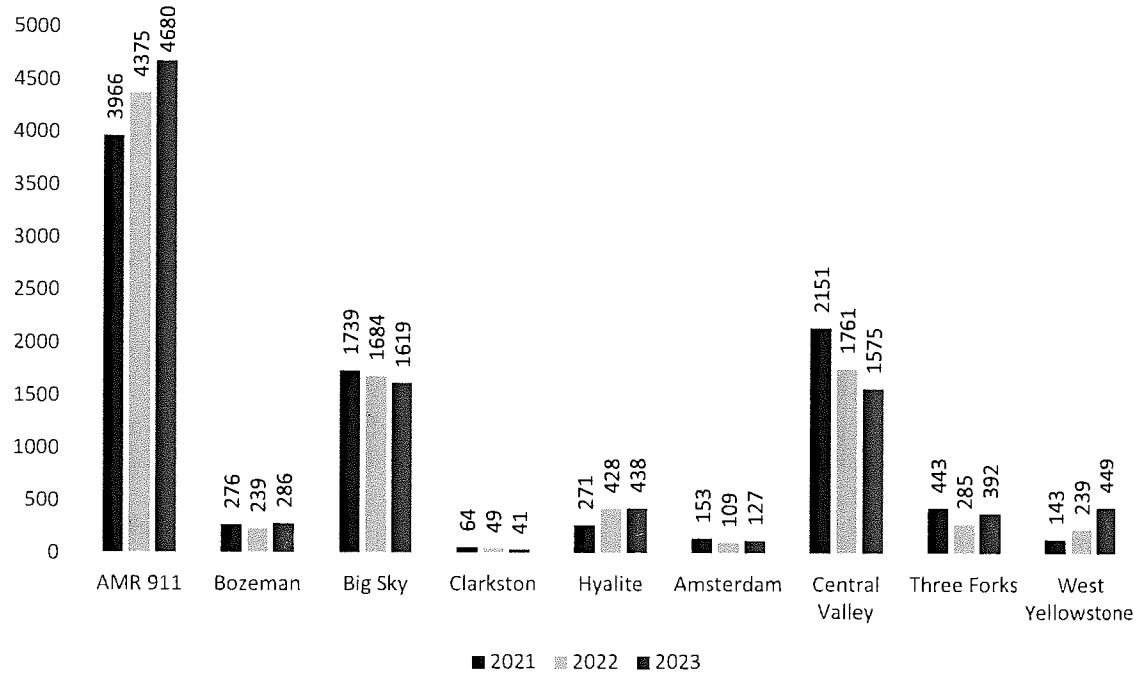


Figure 23: Adjusted Aggregate Average Total Busy Time per Day by Service (Minutes) (Previously Figure 77)

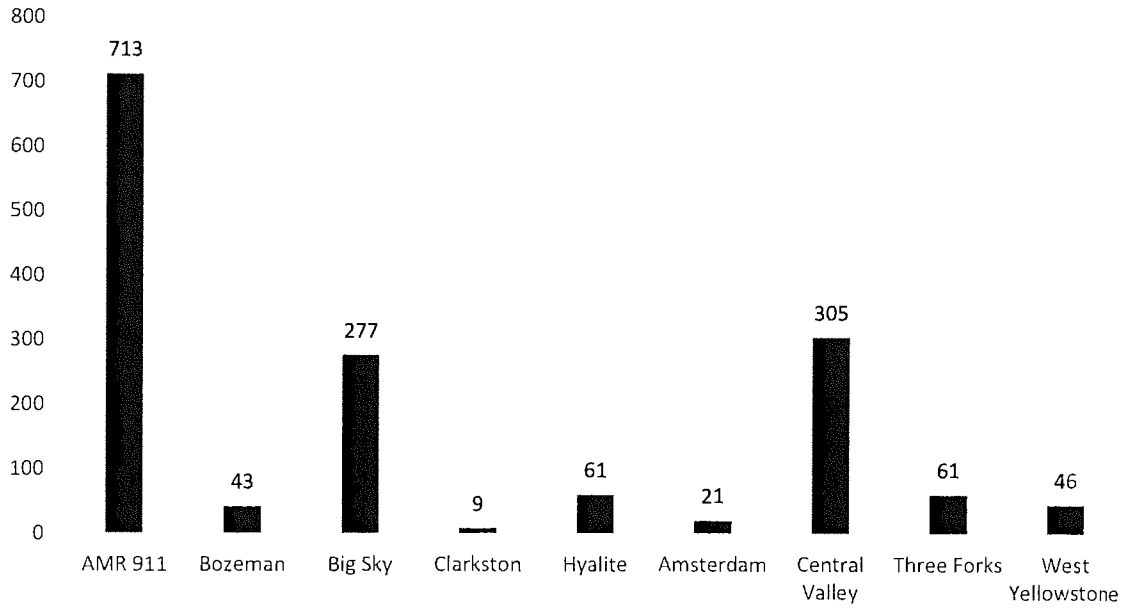


Figure 24: Adjusted Average Total Busy Time per Day by Service and Year (Minutes) (Previously Figure 78)

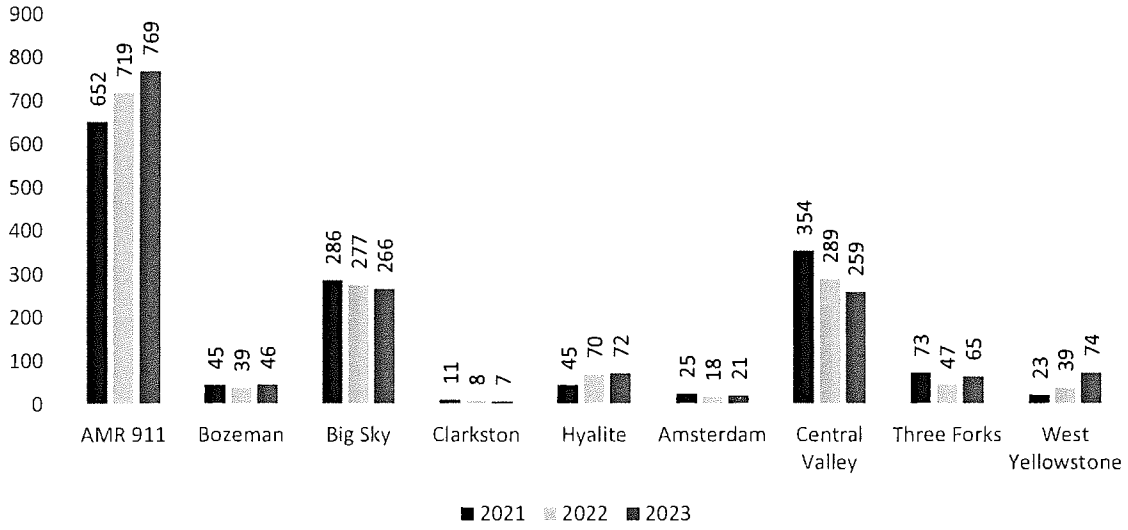


Figure 25: Adjusted Aggregate Average Total Busy Time per Call by Service (Minutes) (Previously Figure 79)

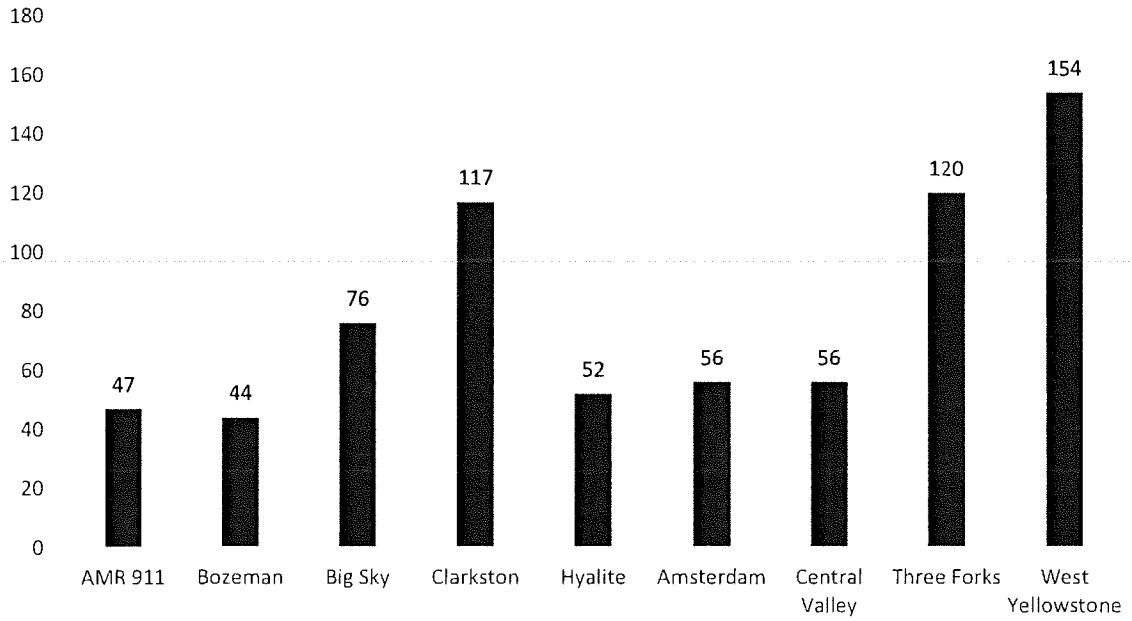


Figure 26: Adjusted Average Total Busy Time per Call by Service and Year (Minutes) (Previously Figure 80)

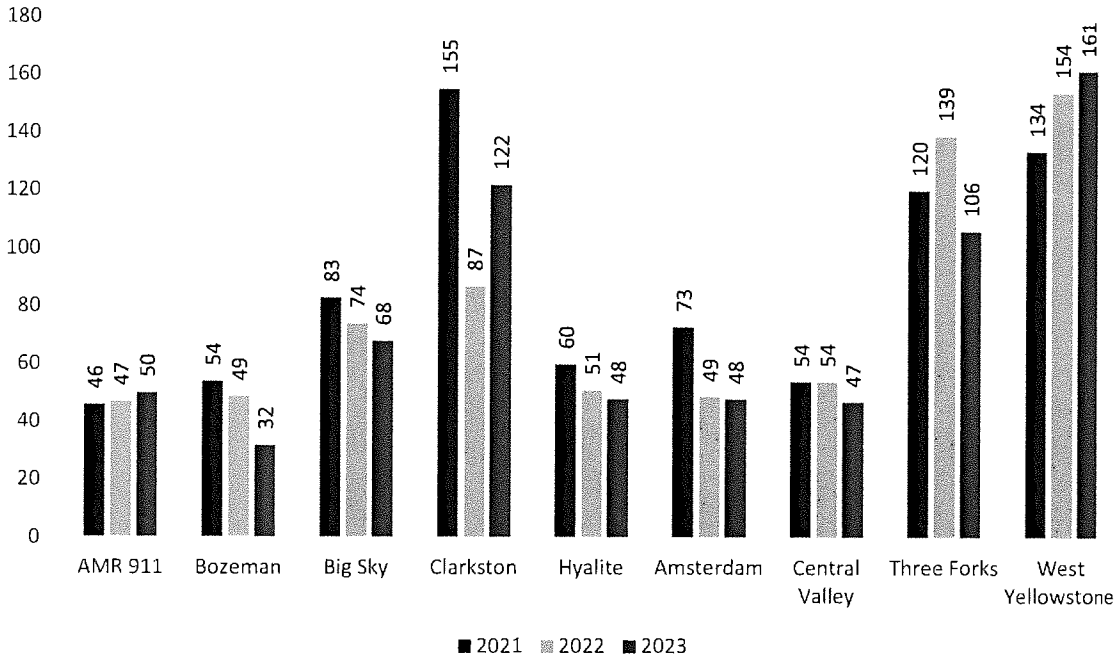
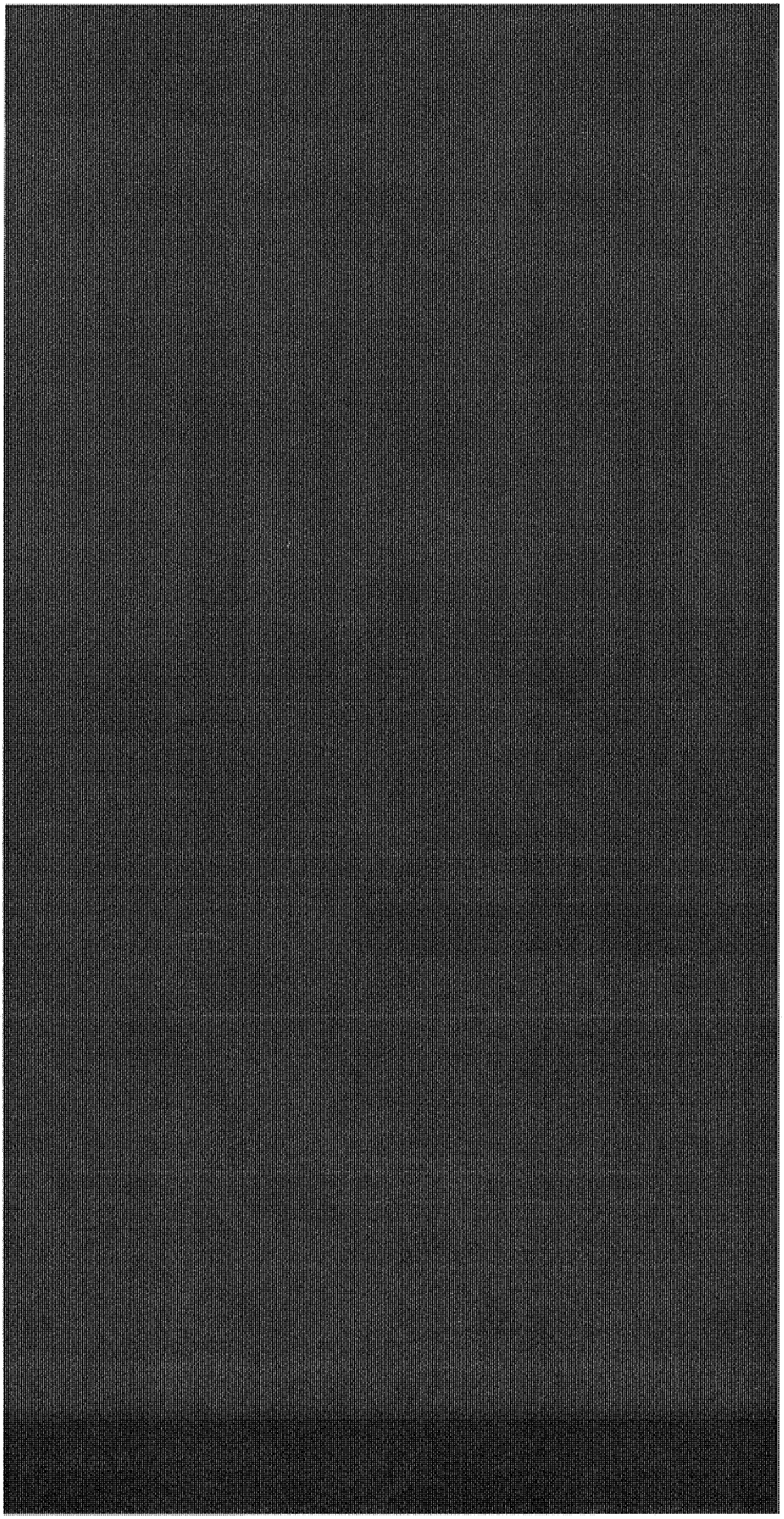


Figure 27: Adjusted Total Busy Time (Table) (Previously Figure 81)

	2021	2022	2023	2021-2023
Aggregate Total (Hrs)	9204	9170	9607	27980
Average/Day (Mins)	1513	1507	1579	1534
West Yellowstone Total (Hrs)	143	239	449	830
Average/Day (Mins)	23	39	74	46
Average/Call (Mins)	134	154	161	154



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& ASSOCIATES