Central Jackson County Fire Protection District

2019 Demographic and Service Analysis
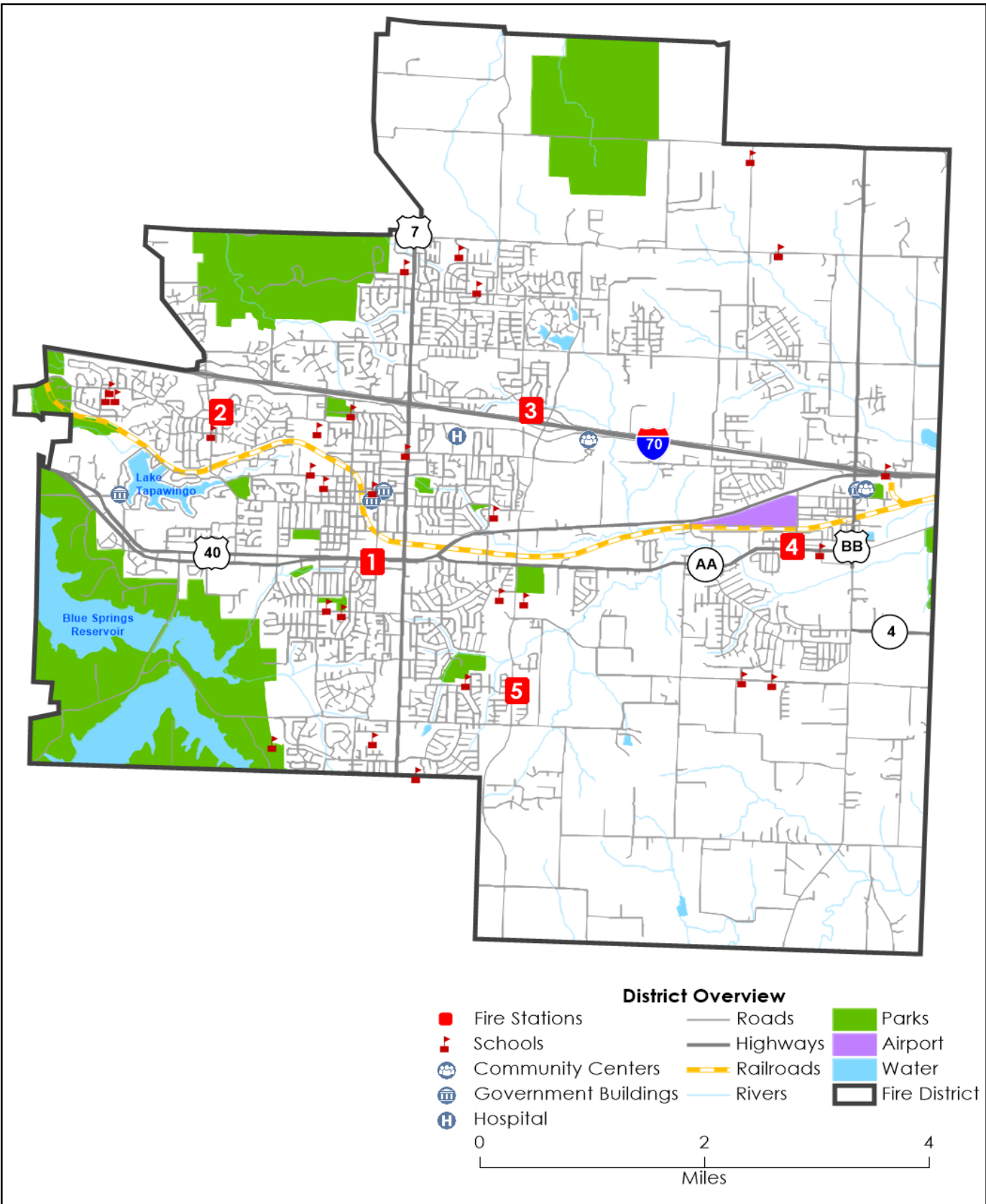
Pride

Determination

Compassion

CJCFPD

...we stand ready
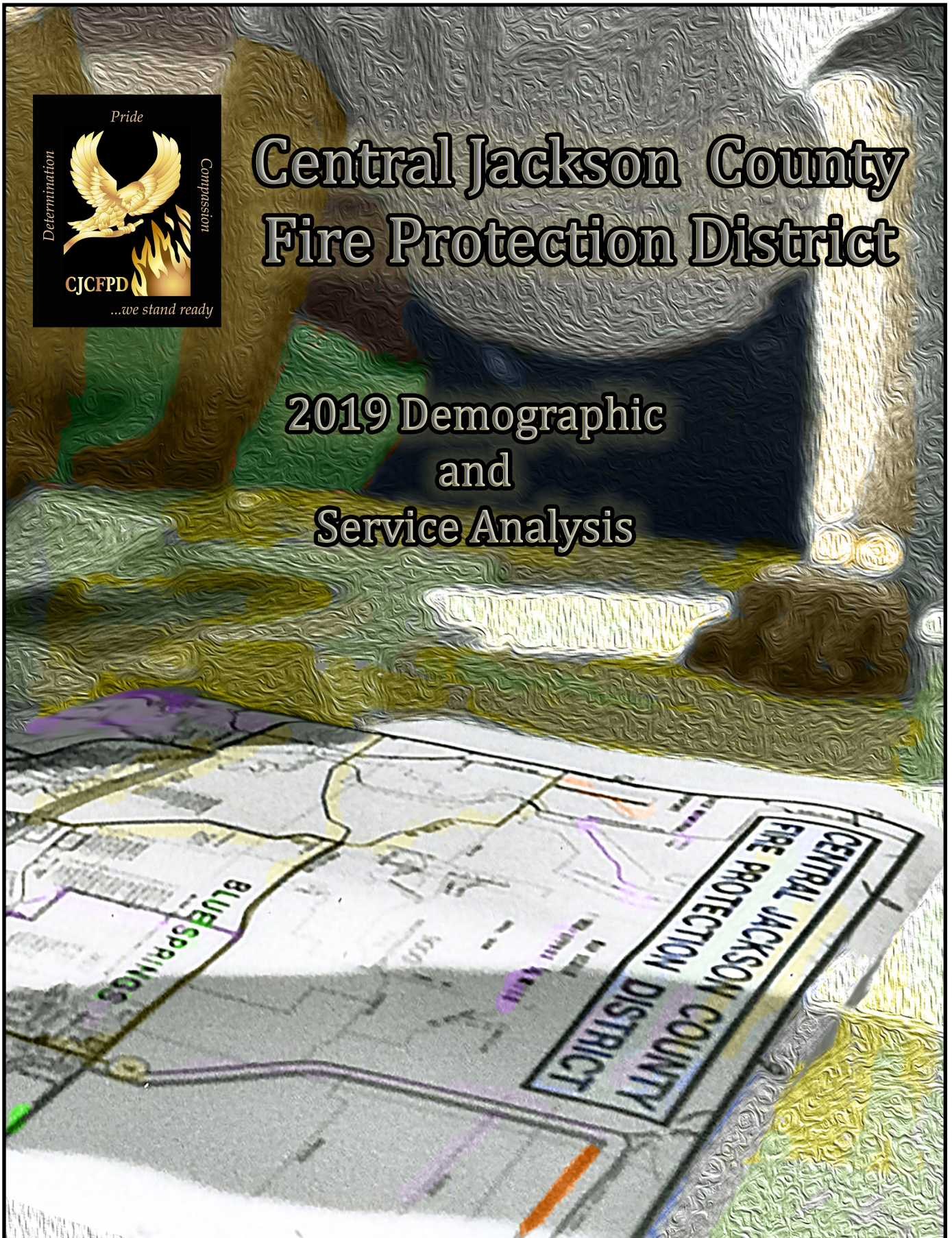
Figure 1. The Central Jackson County Fire Protection District (CJCFPD) boundary is shown, with the key landmarks in the district.

Table of Contents

Executive Summary

The Central Jackson County Fire Protection District provides fire protection, emergency medical services, fire fighting services and hazmat and water rescue services to more than 70,000 residents across 52 sq. miles.

In our analysis, we have found that the district's population since 2000 has increased by 27.3 percent and the number of incidents have increased by 30 percent.

We strongly believe that the Central Jackson County Fire Protection District evaluate relocating current deployment assets, construct new fire stations or a combination of both. Considering the population during the next decade as well as growth patterns, there would be a service gap of 17,578 persons by 2028. As the population in the district ages, it is probable that demand for the emergency medical services provided by the district will continue to increase.

More than 70 percent of all service calls are medical in nature. Again, as the district's population ages, demand for those services should increase proportionately. Since 2003, the number of persons receiving Social Security Insurance payments has nearly doubled and the total amount of payments made to recipients have nearly tripled. The aging of the Central Jackson County Fire Protection District patrons will continue to make the services the CJCFPD provide even more important in the years to come.

Preston Smith
Principal Owner
Business Information Services, LLC

Key Findings

- Between 2000 and 2018, the population in the Central Jackson County Fire Protection District increased by 27.3 percent.

- The fire district's 2018 population is aging at a rapid pace compared with the 2000 Census population. By 2028, the number of persons over 60 years old is expected to be 18,269. This is 33 percent more than what we have living in the district today. In the 2000 Census, only 29.8 percent of the population was older than 45 years old. By 2028, it is projected to be 42.5 percent of the population.

- Based on the projected increase in population in the district, we estimate that the number of incidents in the district will increase from 7,819 in 2018 to between 8,542 to 8,761 by 2023 to 8,920 to 9,162 by 2028.

- An analysis of incidents responded to by the CJCFPD indicated that more than 70 percent of all calls were medical in nature. Other emergency calls account for 25.9 percent of all incidents.

- By 2028, demographic data shows that the district's population could reach 77,433, an increase of 6,243 persons or 8 percent. This rate of growth would be in line with the national population rate growth between 2000 and 2010, which was 9 percent overall.

- About one-third of the adult residents of the CJCFPD are not in the workforce . Residents of Eastern Jackson County have higher-than-average incidences of Alzheimer's Disease, heart disease and congestive heart disease. . Since 2003, the number of persons receiving Social Security Insurance payments has nearly doubled and the payments made to recipients have nearly tripled. .

- Our analysis shows that there are several areas of concern for District leadership. Relocating assets or the construction of new fire stations will be needed to serve the future needs of the District.
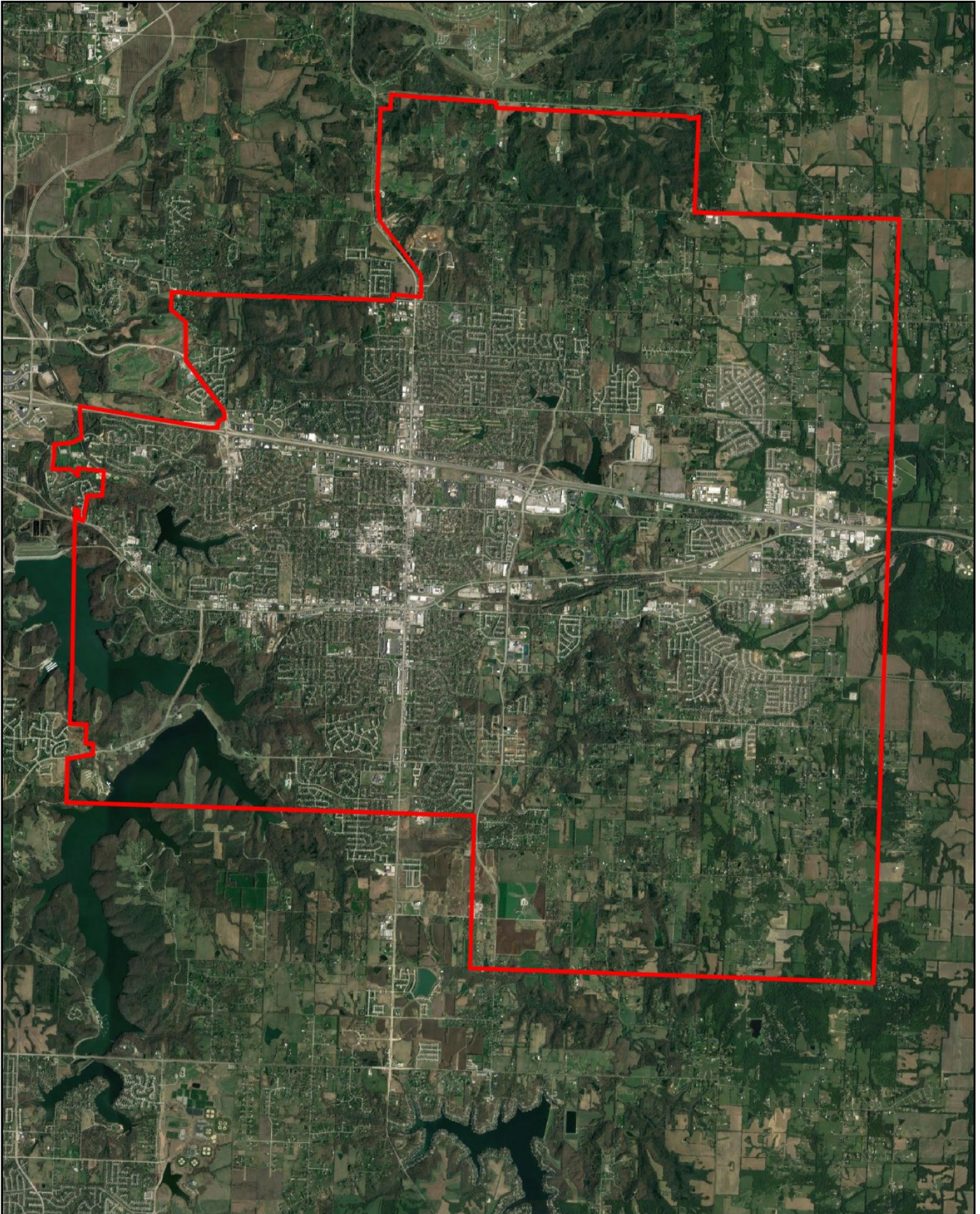
Figure 2. Aerial view of the Central Jackson County Fire Protection District.

Reason for the Study

The Central Jackson County Fire Protection District (CJCFPD) is located in Eastern Jackson County, Missouri, just east of the Kansas City metropolitan area. The district covers 52 sq. miles. The Central Jackson County Fire Department was formed in 1960, including Lake Tapawingo and the City of Blue Springs. In 1981, Grain Valley joined the district. Presently, the district staffs five stations, has 108 firefighters, and 16 administrators and staff. The district's mission has always been to save lives, protect property and preserve the environment.

In July 2019, district's board asked our firm to conduct a study of where the district's population was increasing, and analyze its incident data for the last four years.

The district intends to use the data collected and presented in this study to not only evaluate how adequately it is serving the present district, but to also appropriately plan for future growth, and better account for the needs created by an increase in the community populations.

PAGE DELIBERATELY LEFT BLANK

Page 8

Demographics in the CJCFPD

Population:

Population in Central Jackson County Fire Protection District has increased from 55,907 residents in 2000 to 71,188 persons by 2018. This is a 27.3 percent increase in population; statewide the population during the same timeframe increased by only 3.4 percent. The population older than 60 years old has increased from only 5,974 in 2000 to 13,702 in 2018, an increase of 129 percent.

Since the Census Bureau does not compile data based on fire protection districts, these estimates come from using raw Census data and overlapping the district's boundary in a commercial GIS application. This method will have a small error, but is the most accurate process available to estimate population in the fire district.

Age	2018 Estimated Population				2012-2016 American Community Survey Data				2000 Census		Overall Change 2012 > 2018	Overall % Change 2012 > 2018	Overall Change 2000 > 2018	Overall % Change 2000 > 2018
	Number			Percent	Number			Percent	Number	Percent				
	Both sexes	Male	Female	Both sexes	Both sexes	Male	Female	Both sexes	Both sexes	Both sexes				
Under 17	17,833	9,117	8,716	25.1%	19,910	10,022	9,888	29.1%	16,333	29.2%	-2,077	-10.4%	1,500	9.2%
18-44	25,779	12,826	12,953	36.2%	23,559	11,565	11,994	34.4%	22,895	41.0%	2,220	9.4%	2,884	12.6%
45-59	13,874	6,635	7,239	19.5%	13,375	6,347	7,028	19.5%	10,705	19.1%	499	3.7%	3,169	29.6%
Over 60	13,702	6,145	7,557	19.2%	11,622	5,227	6,395	17.0%	5,974	10.7%	2,080	17.9%	7,728	129.4%
Total population (all ages)	71,188	34,723	36,465	100.0%	68,466	33,161	35,305	100.0%	55,907	100.0%	2,722	4.0%	15,281	27.3%

Title: Age Cohorts in the Central Jackson County Fire Protection District: 2000 Census, 2012-2016 ACS and 2018 Estimated

Figure 3. 2000 Census and 2012-2016 ACS Data with estimated 2018 totals for the Central Jackson County Fire Protection District, by age cohorts, and compared to changes in the state overall.
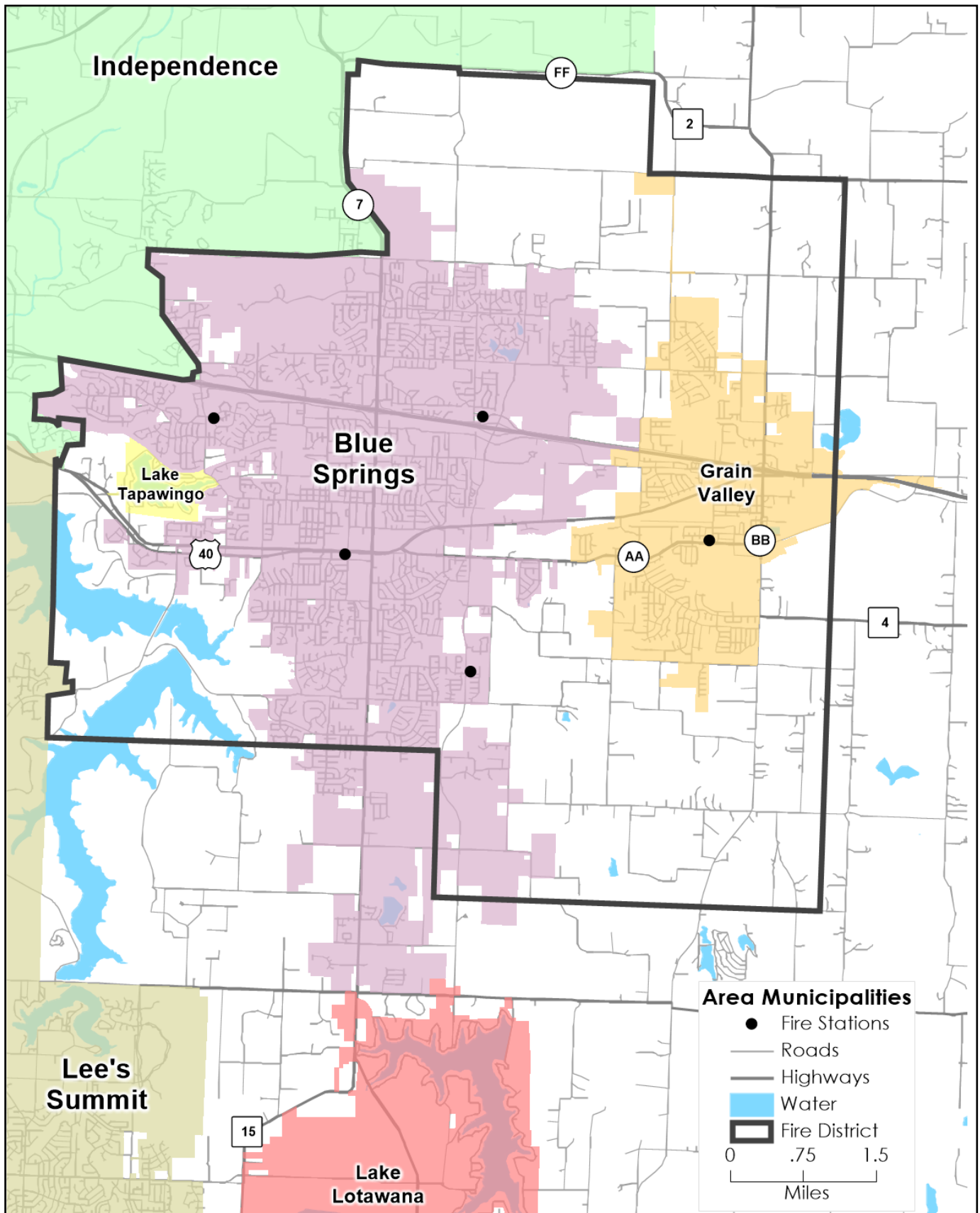
Figure 4. Area municipalities within and near the Central Jackson County Fire Protection District.

The charts and table on these two pages, illustrate how the population in the fire district is aging at a rapid pace compared with the 2000 Census population. In Figure 6, below, the blue bars represent the estimated 2018 population in each age cohort. Notice how in each group from 45 years old and older, the blue bar is taller than the other two. The childbearing-ages of 18 to 44 are holding their own, with the 2018 numbers close to or a bit higher than the other two. However, there is a big drop in the number of children living in the district currently, from the 2012-2016 estimate. Since a majority of incidents the CJCFPD currently responds is for emergency medical services, it is probable that as the population ages demand for this service will increase sharply.
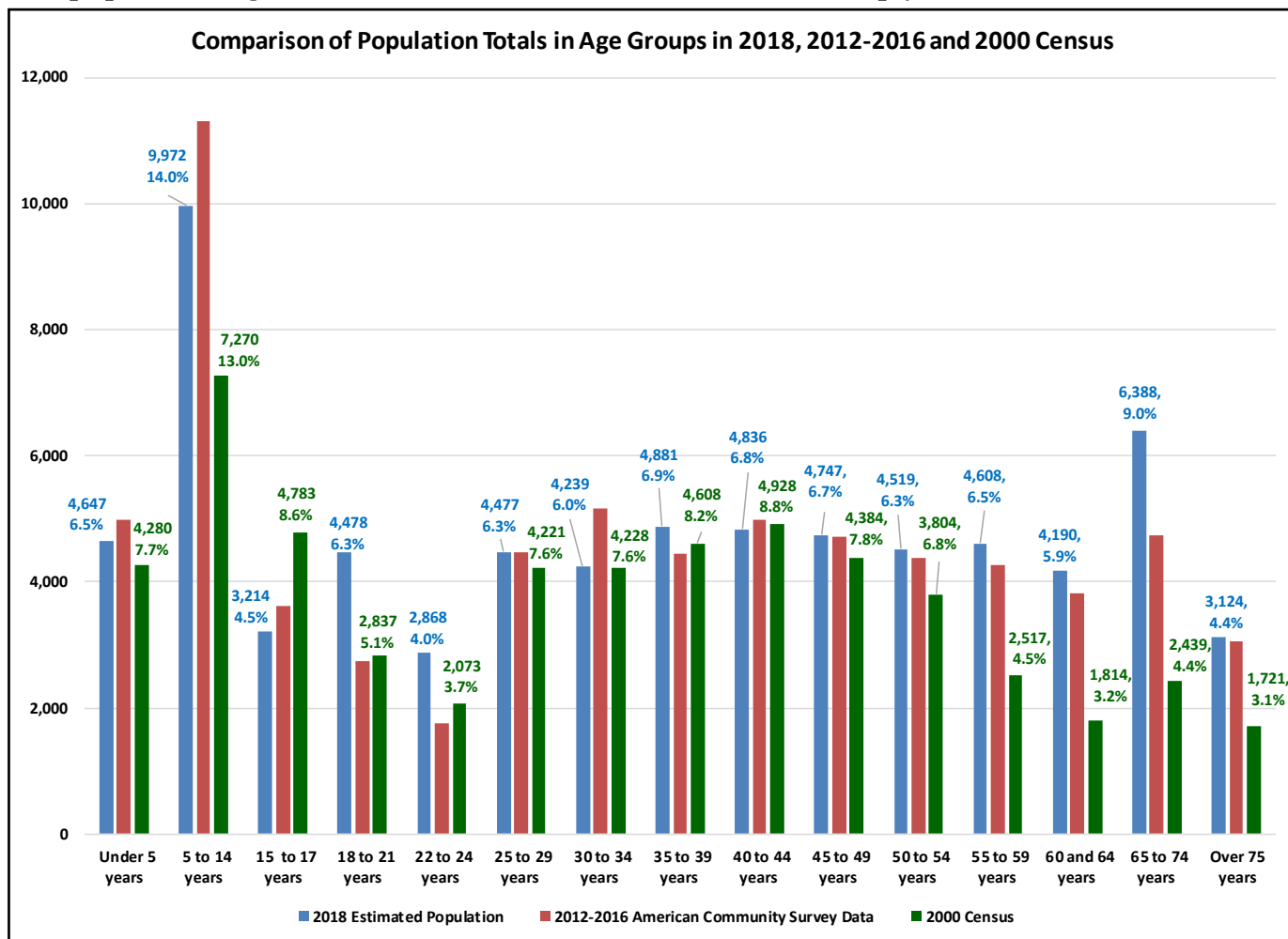
Figure 5. Distribution by age cohorts and by percentage in the Central Jackson County Fire Protection District, for the 2000 Census, 2012-2016 ACS, and estimated 2018 population.

By 2028, the number of persons over 60 years old is expected to be 18,269. This is 33 percent more than what we have living in the district today. Figure 5 shows that in the 2000 Census, only 29.8 percent of the population was older than 45 years old. By 2028, it is projected to be 42.5 percent of the population.
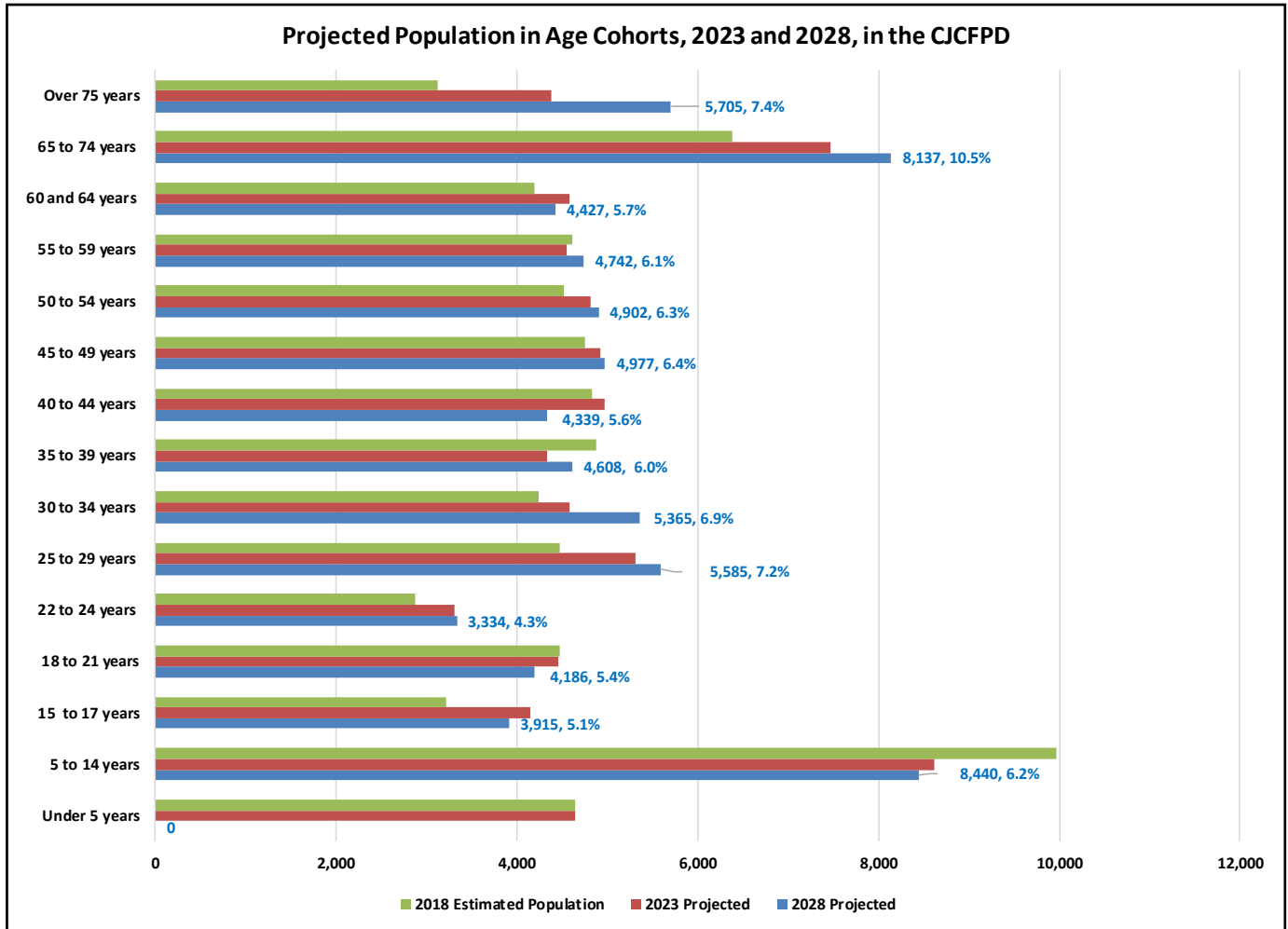
Figure 6. Distribution by age cohorts and percentage in the Central Jackson County Fire Protection District, population estimated for 2018, projected to 2023 and 2028.

We used two models to predict how many annual calls for assistance by 2028. The red numbers are based on a growth model, using the projected population; this model shows as many as 8,920 incidents could occur by 2028. Similar results were obtained using a linear regression model (shown in the blue boxed yellow numbers), indicating total annual calls could be as high as 9,162 incidents by 2028. We have had limited data points in this analysis, which could cause error to increase. Additionally, the district is actively engaged in call-reduction programs. The potential impact of these programs on either predictive model is unknown.
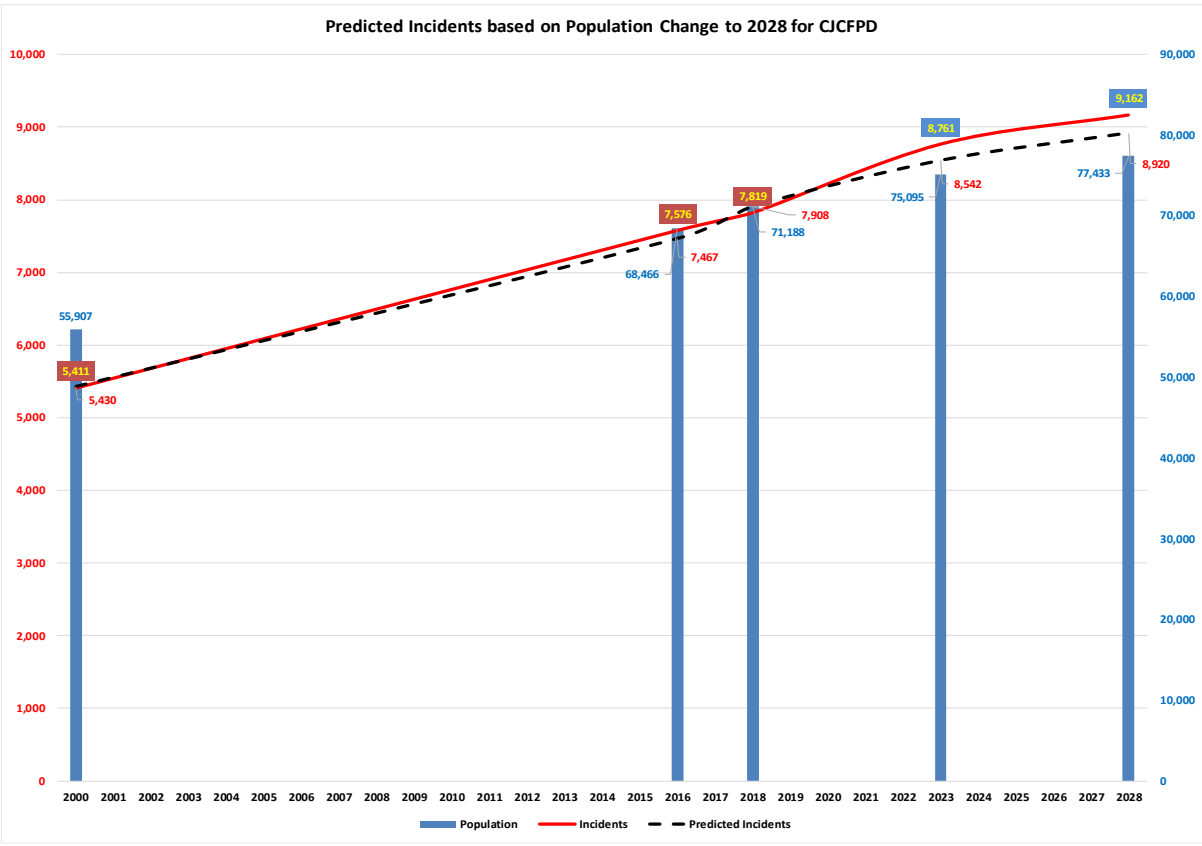
Figure 7. Predicted incidents based on population change in the Central Jackson County Fire Protection District, estimated 2028 population. There are two models shown on this graph. The red numbers show an estimated number of incidents based on a simple linear model. The boxed yellow numbers show the number of incidents based on a regression model. The blue bars and the right-hand axis show the changes in population. (The red line for actual incidents are predicted after 2018 using a linear model.

Change in Percentage of Total Population, by Cohorts, 2000-2028, in CJCFPD
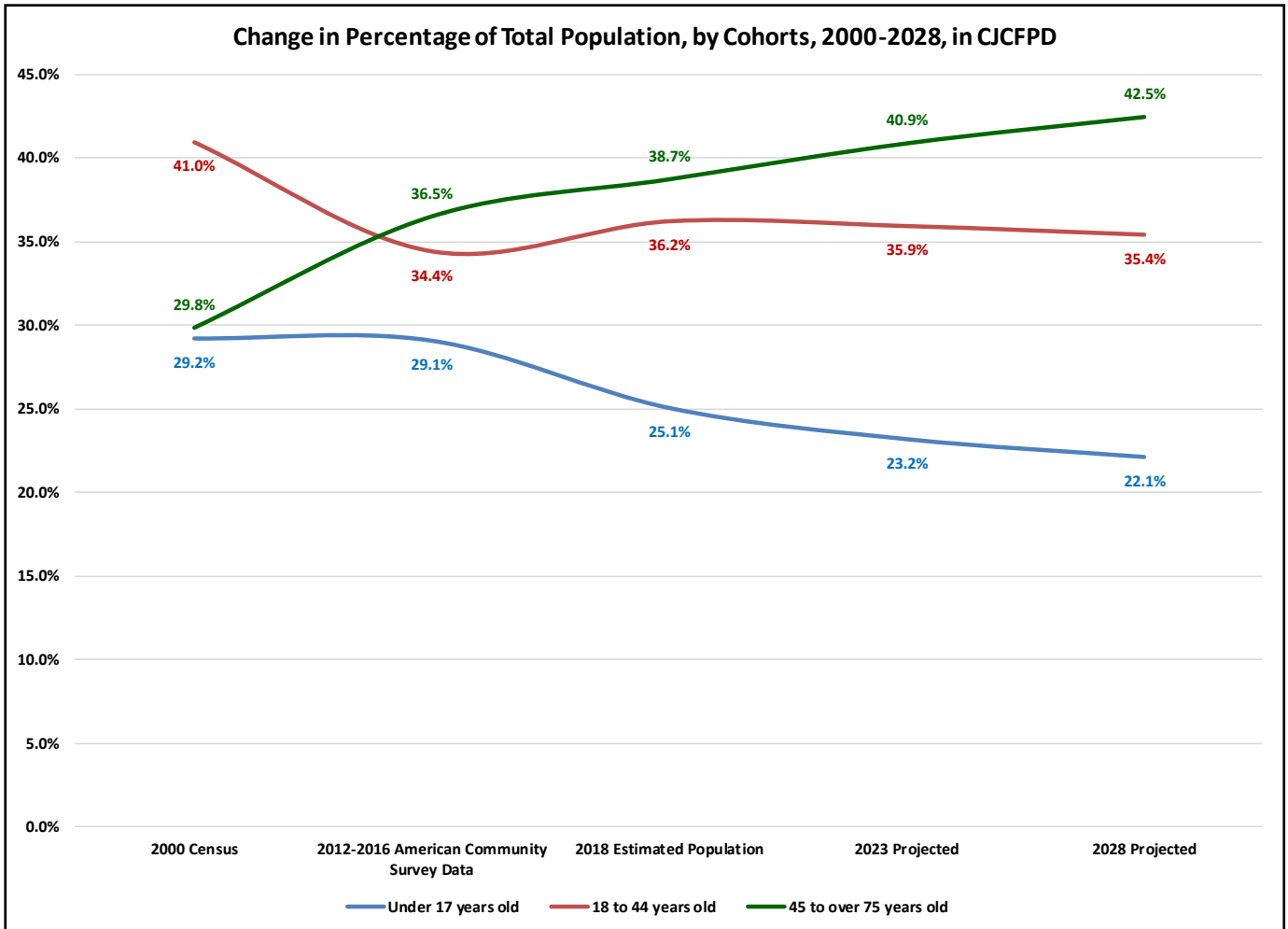
Figure 8. Change in percentage of total population, by cohorts, 2000-2028, in CJCFPD.

Central Jackson County Fire Protection District

The CJCFPD is unique in that it has large areas of dense population that would be similar to a metropolitan area, a few scattered urban areas and large rural and even a few wilderness areas. This means that the district has to be able to respond to widely diverse levels of development. Figure 9, below, shows that about half the district is rural and more than a third is metropolitan. The locations of the current stations, shown as black dots, indicate a solid level of service to the metropolitan areas, with the exception of north Highway 7.
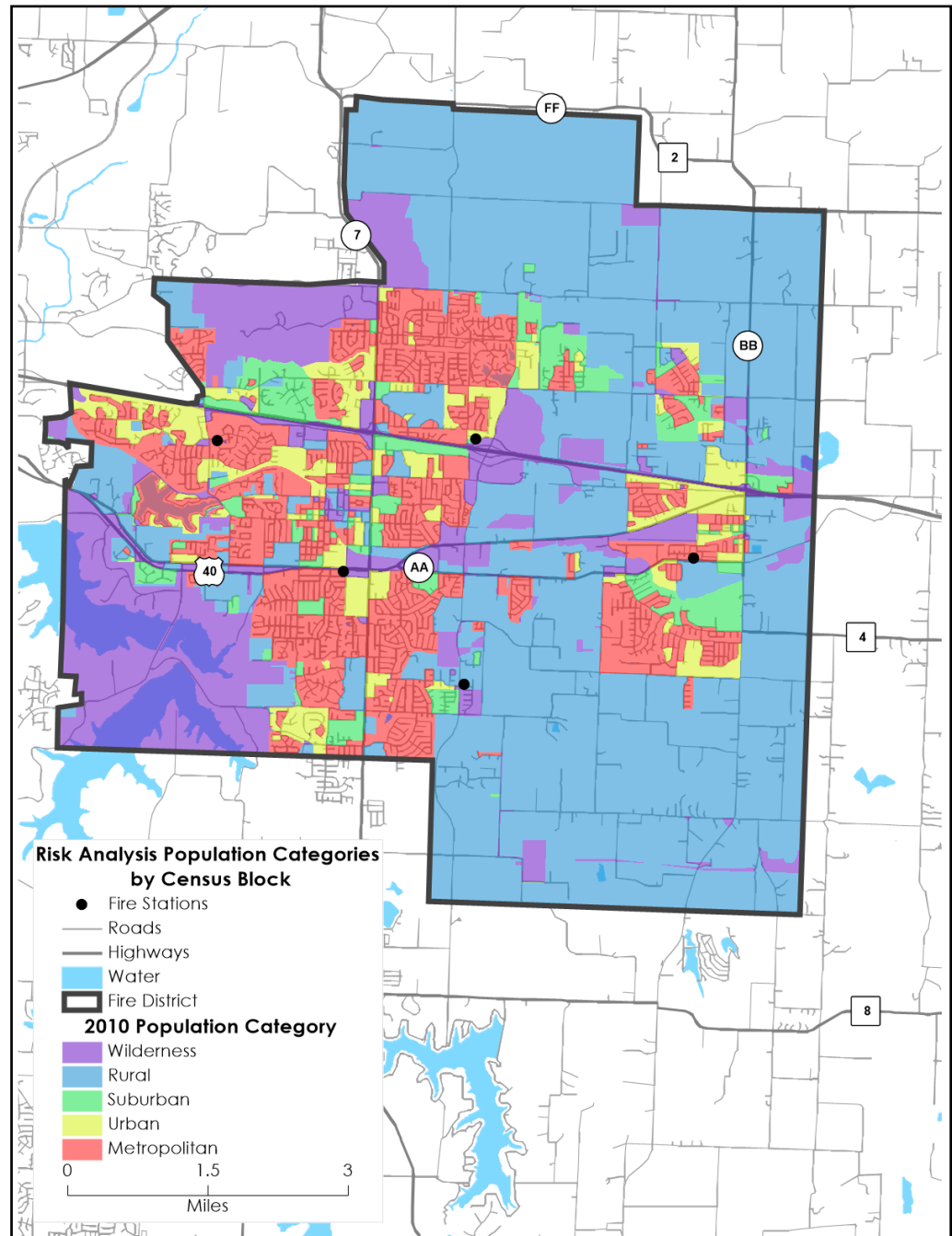
Figure 9. These areas were determined by calculating the population percentage of each Census block, summing those areas to find a total district population, and dividing by the district area in square miles.

2010 Population by Census Block
- ● Fire Stations
- ⎯ Highways
- ☐ Fire District
- 49 and below
- 50 to 149
- 150 to 299
- 300 to 599
- 600 and above
- No population

0   .75   1.5
Miles
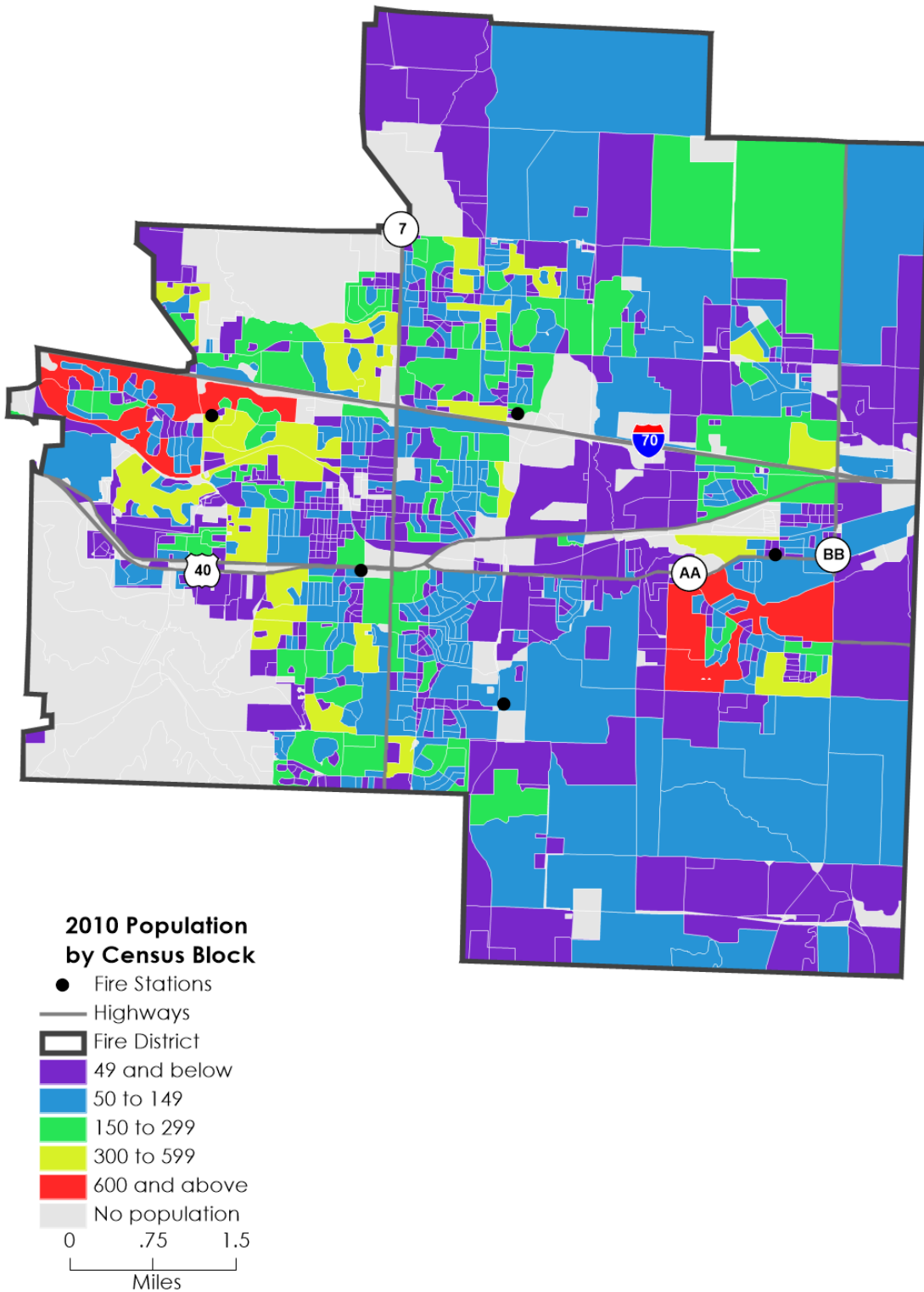
Figure 10. Population density in the Central Jackson County Fire Protection District, 2010 Census.

Page 17

The blue areas of the map in Figure 11 show areas that had increases of more than 50 new persons who moved into the district during the last year. There is a large swath through the middle of the district where the population is growing, but about half the district in the northern and southern parts have lost population during the last year.

Figures 12 and 13 on p. 19, show the increases in the number of residential building permits in Blue Springs and Grain Valley since 2005. The Heartland MLS data service provided a decade of house sales for Eastern Jackson County. Included in these house sales would also be new construction, which can be estimated from the chart that shows the building permits.
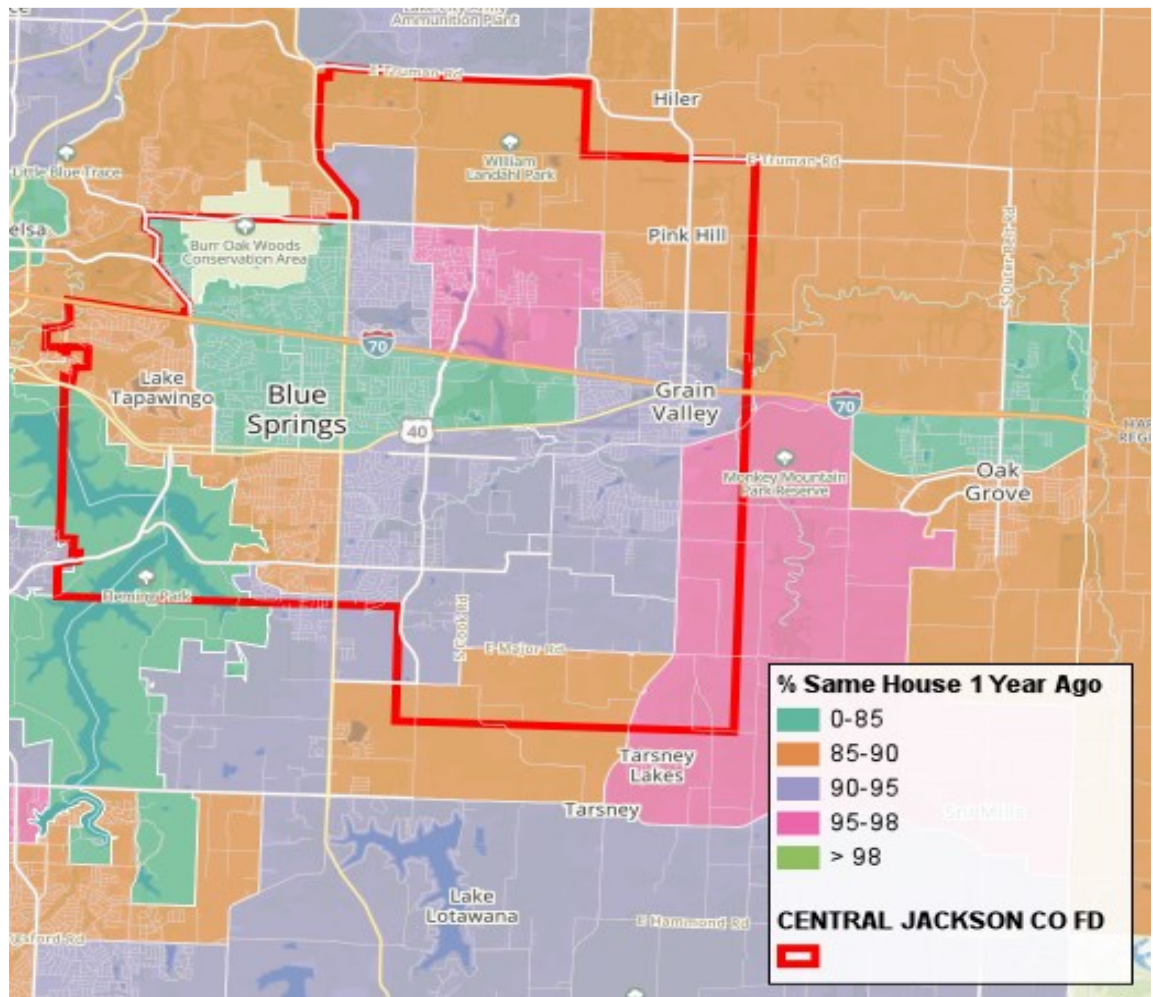
Figure 11. The level of population migration in the CJCFPD during 2018. A large swath on both sides of I-70 indicate as much as 85 percent of the residents were living in the same house as a year ago. That means that as high as 15 percent of the persons living in this year were not living there a year ago. That is a higher-than-average migration rate. The pink areas show where there is virtually no migration into or out.

All Single-Family Homes Sold in Eastern Jackson County in 2008-2018

City	Number of Homes Sold 2018	Number of Homes Sold 2017	Number of Homes Sold 2016	Number of Homes Sold 2015	Number of Homes Sold 2014	Number of Homes Sold 2013	Number of Homes Sold 2012	Number of Homes Sold 2011	Number of Homes Sold 2010	Number of Homes Sold 2009	Number of Homes Sold 2008	Number of Homes Sold 2007	Number of Homes Sold 2006	Number of Homes Sold 2005	% Change 2008 > 2018	% Change 2010 > 2018
Blue Springs	1,106	1,061	1,128	1,032	867	1,634	710	600	639	742	729	801	842	1,011	51.7%	73.1%
Grain Valley	360	348	385	329	293	486	250	218	234	272	284	314	388	372	26.8%	53.8%
Independence	1,960	1,865	1,763	1,640	1403	3,160	1,419	1,297	1,295	1415	1,547	1,636	1,842	2,055	26.7%	51.4%
Lee's Summit	2,141	2,041	2,154	1,972	1720	3,354	1,491	1,183	1,241	1402	1,491	1,716	1,772	2,079	43.6%	72.5%
Oak Grove	175	175	184	134	142	266	111	90	116	123	111	125	140	138	57.7%	50.9%
Total	5,742	5,490	5,614	5,107	4,425	8,900	3,981	3,388	3,525	3,954	4,162	4,592	4,984	5,655	38.0%	62.9%
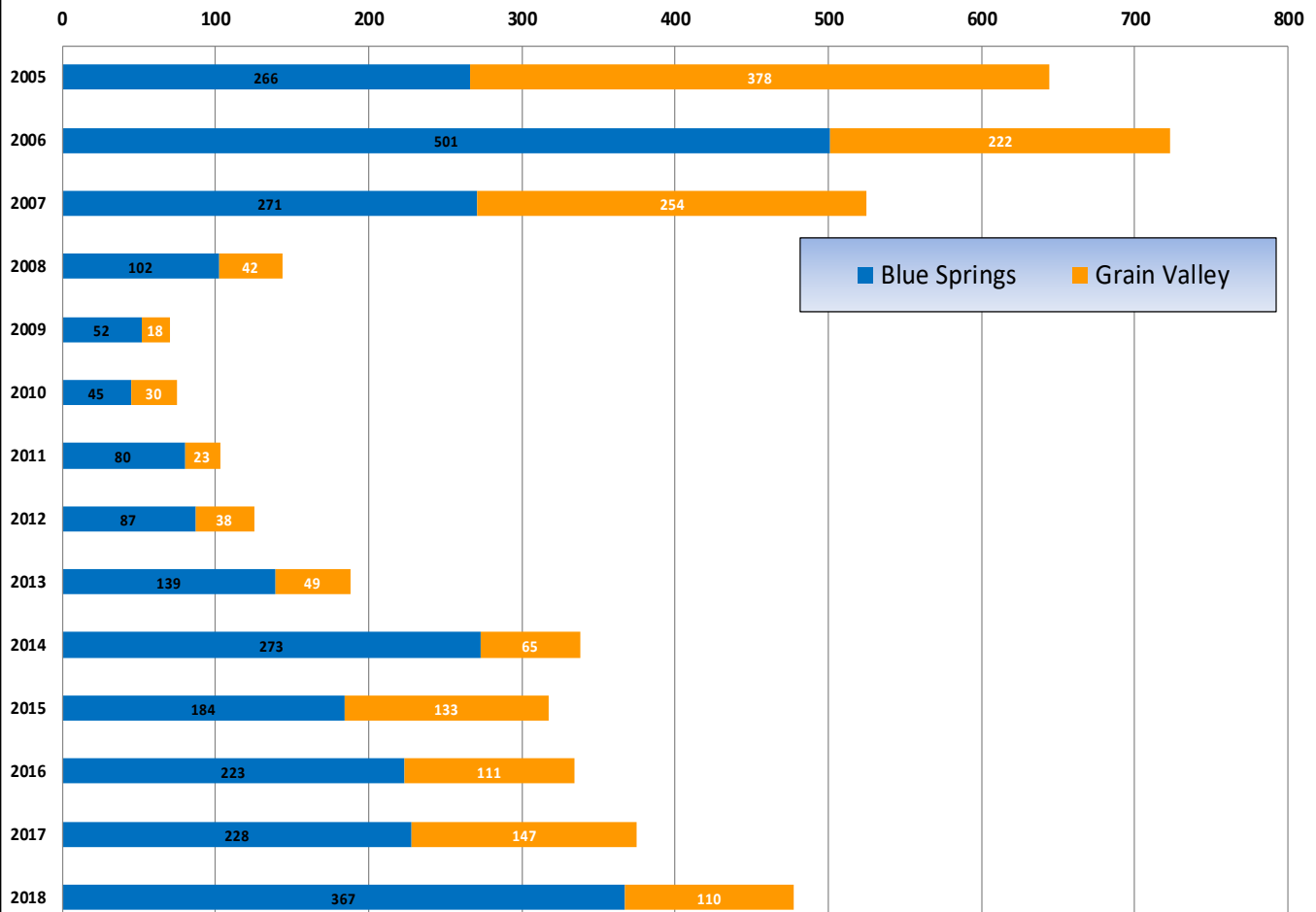
Figures 12-13. Top, house sales in Eastern Jackson County during the last decade. Bottom, residential building permits in the City of Blue Springs and Grain Valley, 2005-2018.

The CJCFPD is comprised of 27 Census block groups, which is one of the primary ways that the Census Bureau segregates data, as shown in Figure 15. On p. 21, Figure 15, shows the smallest area, Census blocks, where data is aggregated. There are 1,353 Census blocks in the CJCFPD.

All the maps in this study are based on data aggregated by block groups for simplicity to see the comparisons. As you can see in Figure 14, below, some of the block groups extend beyond the boundaries of the CJCFPD but the data totals for those blocks would be calculated within the district's boundaries.
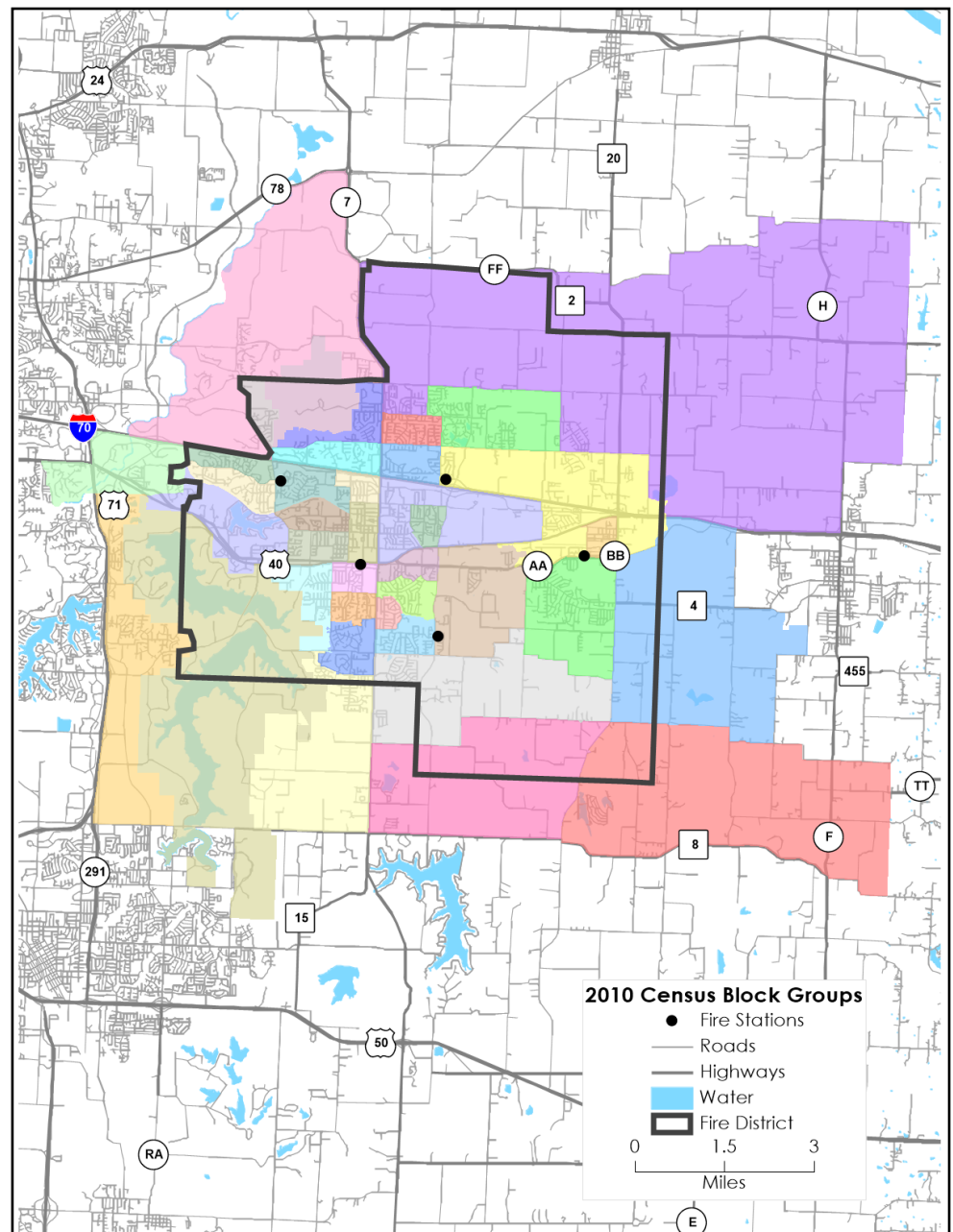
Figure 14. 2010 Census block groups in the CJCFPD.
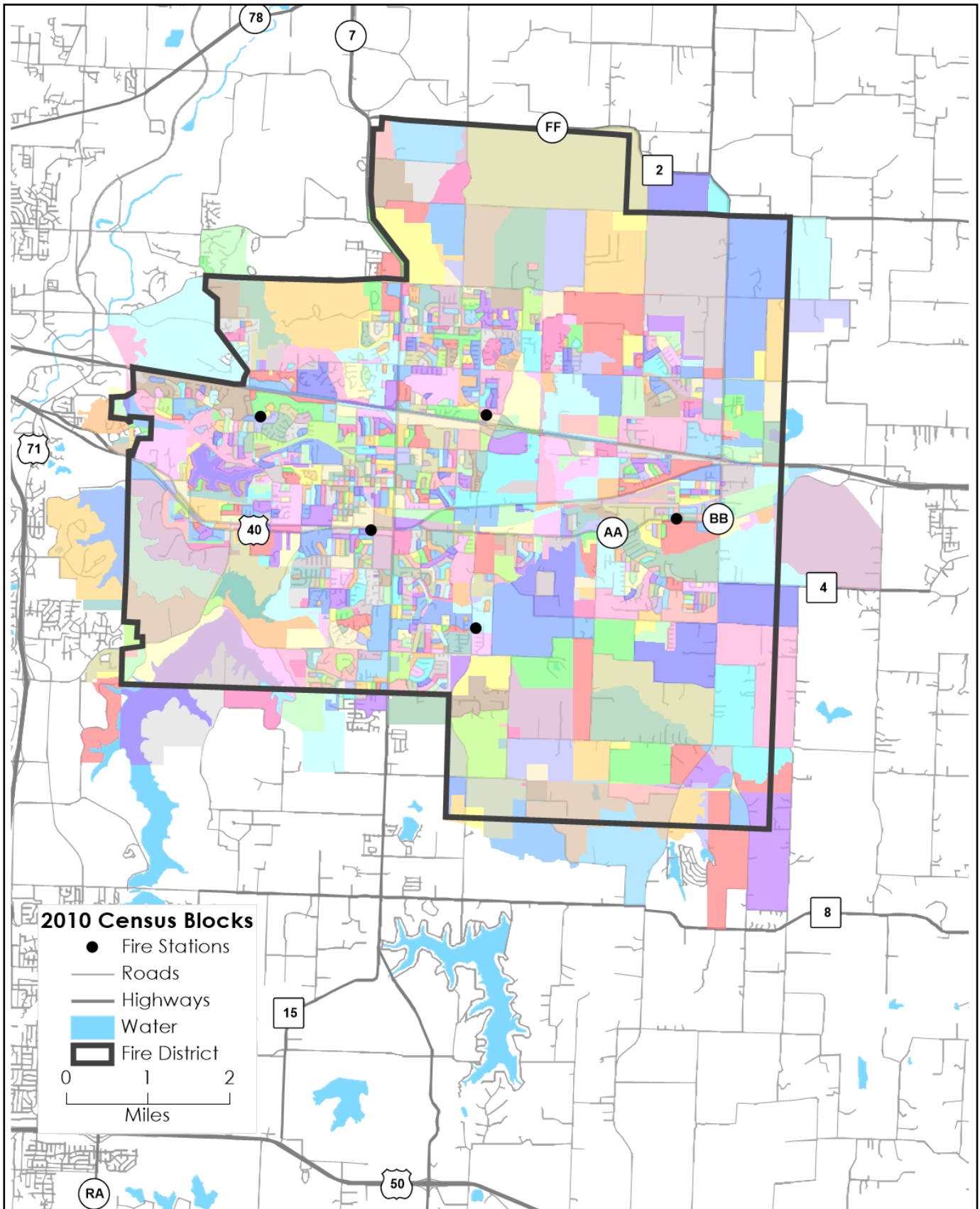
Figure 15. 2010 Census blocks in the CJCFPD.

Estimated 2018 Population
- Fire Stations
- Highways
- Fire District
- 799 and below
- 800 to 1,599
- 1,600 to 2,499
- 2,500 to 3,999
- 4,000 to 5,999
- 6,000 and above

0   1   2
Miles
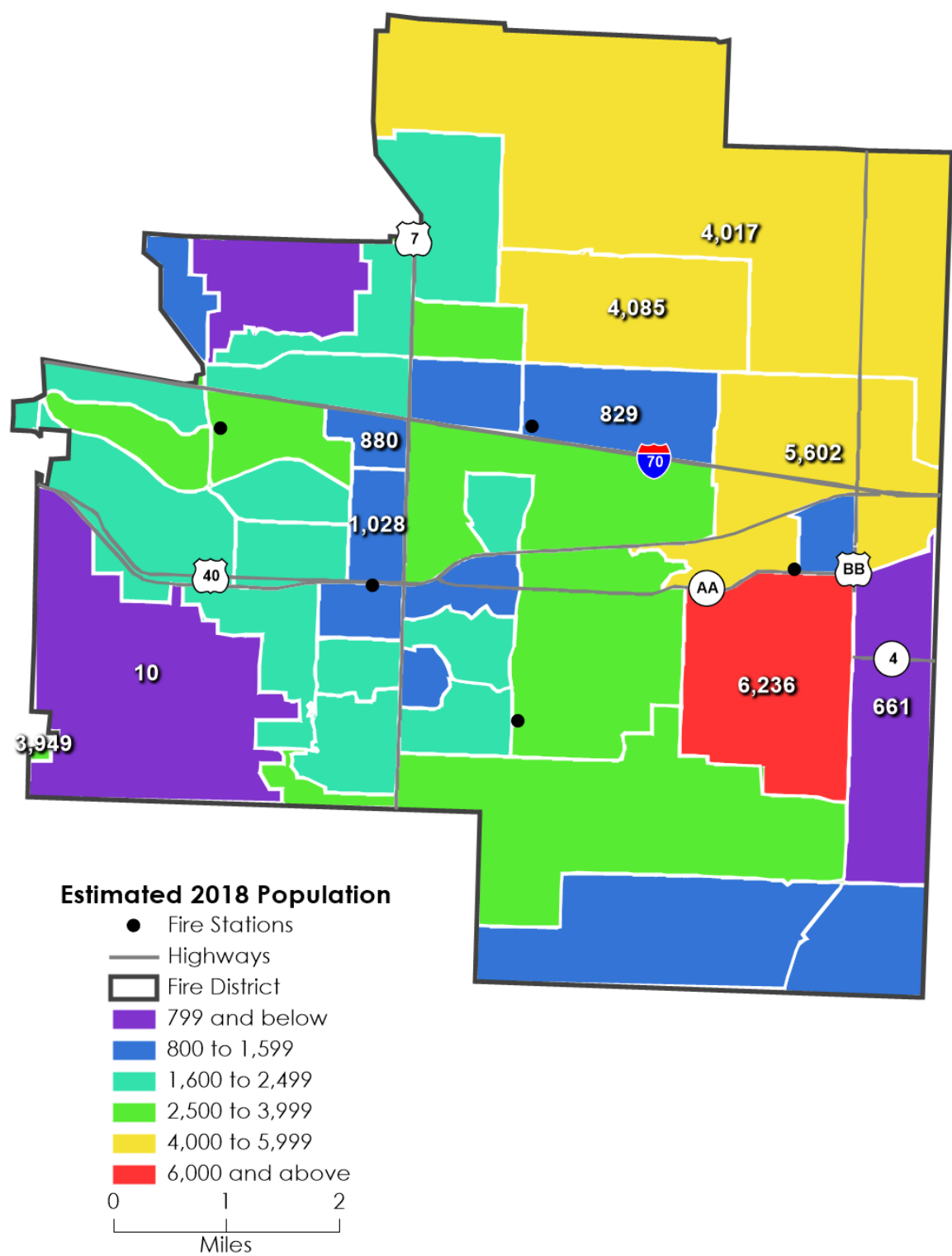
Figure 16. Estimated 2018 population by Census block group in the CJCFPD.

Page 22
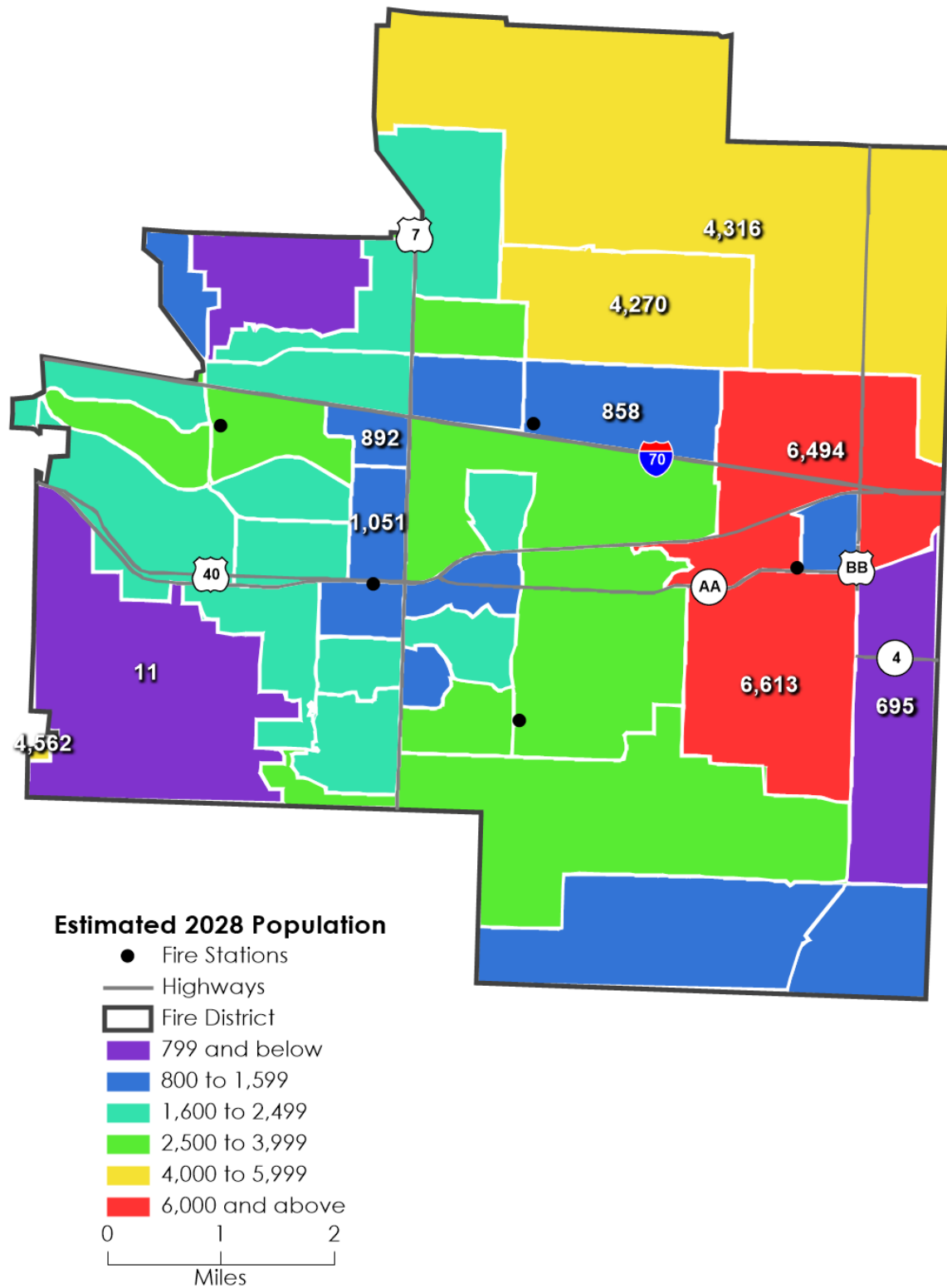
Figure 17. Estimated 2028 population by Census block group in the CJCFPD.

Estimated Percent Change in Population from 2010 to 2018

- Fire Stations
- Highways
- Fire District
- 0.0% and below
- 0.0% to 5.0%
- 5.0% to 10.0%
- 10.0% to 20.0%
- 20.0% to 30.0%
- 30.0% and above
- No Population

0   1   2
Miles

21.6%
-0.8%
0.5%
25.4%
-2.8%
-0.8%
57.3%
-23.1%
29.1%
34.2%
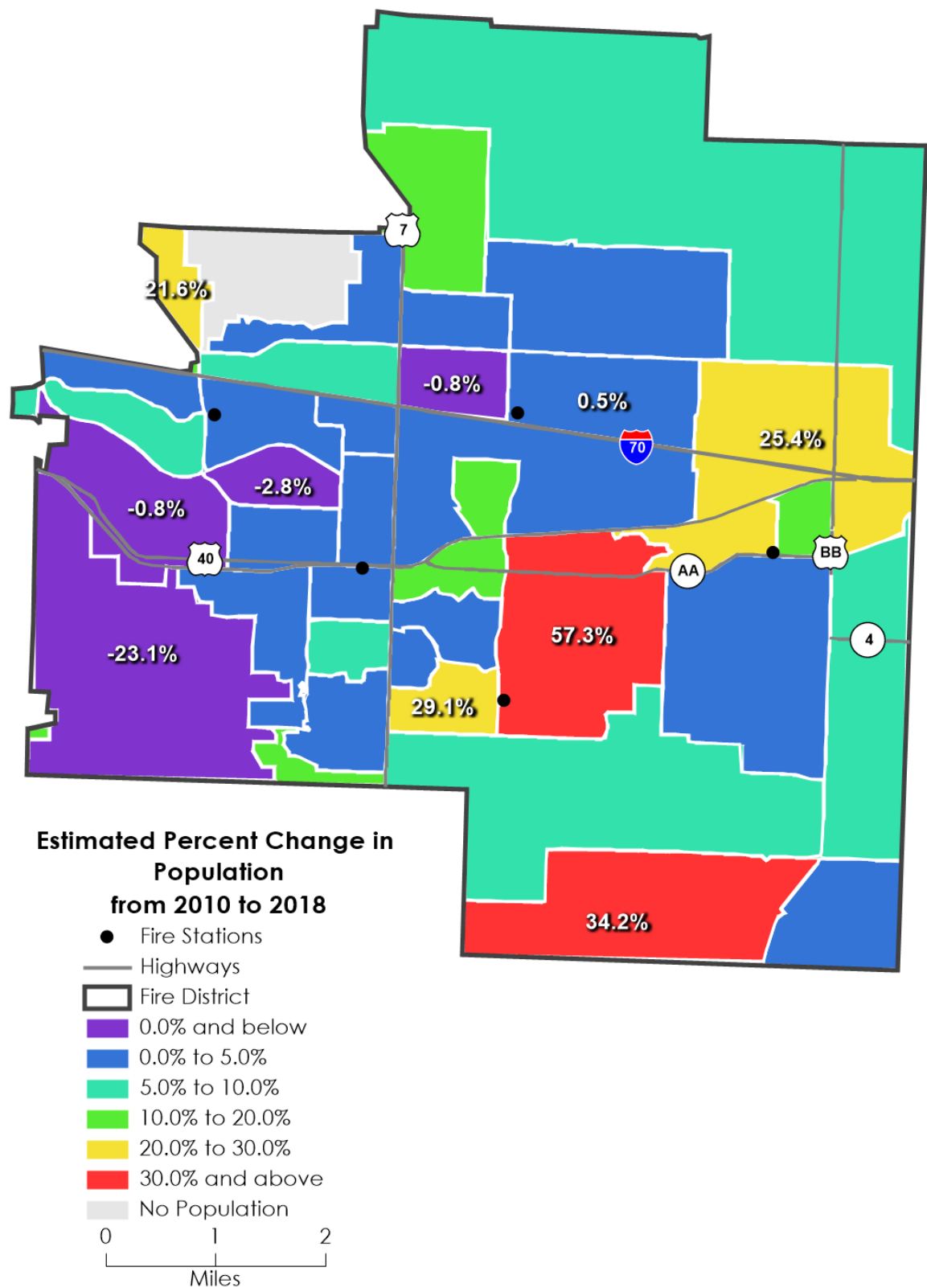
Figure 18. Estimated percent change in population in the CJCFPD, from 2010-2018.
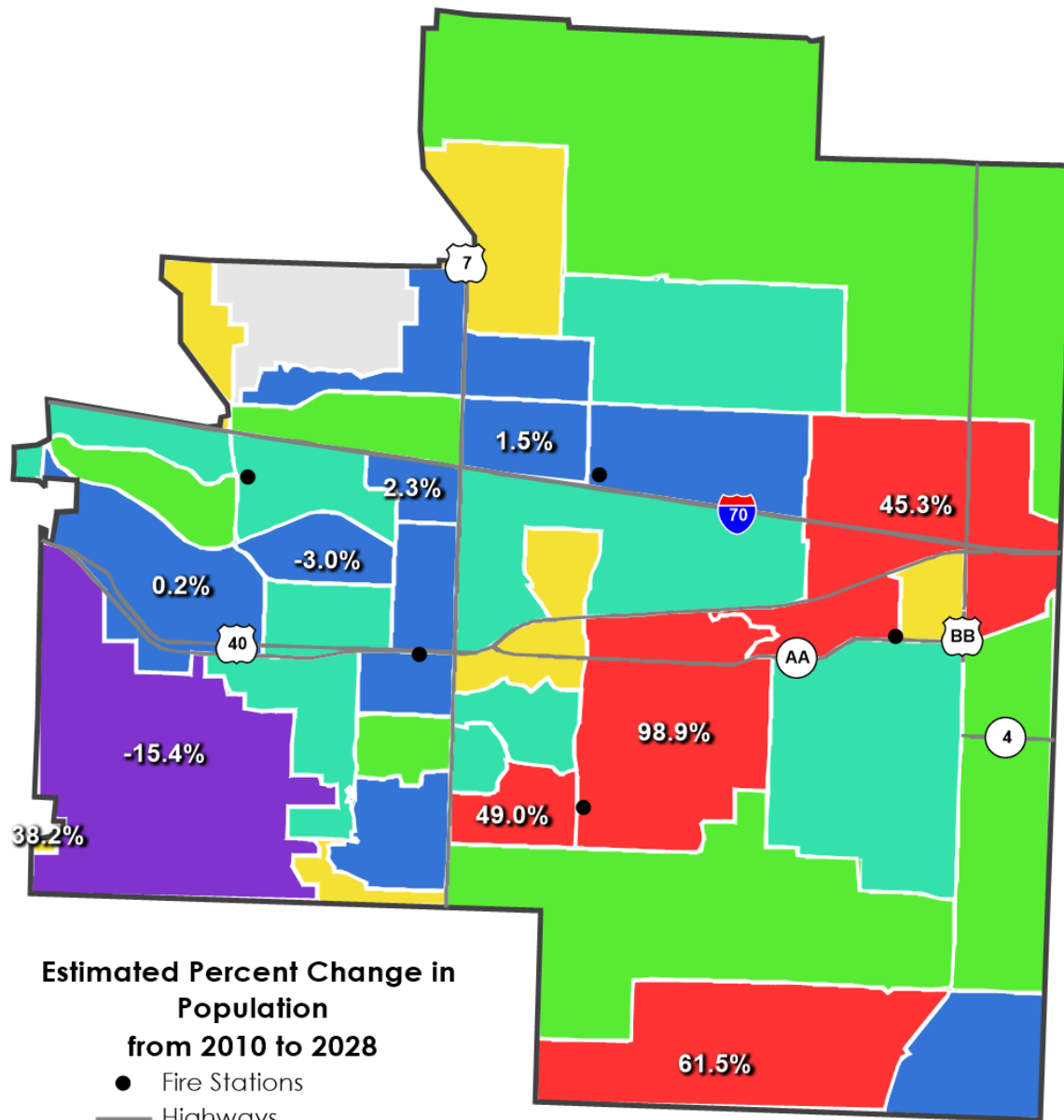
Figure 19. Estimated percent change in population in the CJCFPD, from 2010-2028.

Eastern Jackson County Health Information Data Profiles:

With the population in the CJCFPD aging in large numbers, this section focuses on the types of diseases prevalent in the district. About one-third of persons living in the district are not in the work force, which in this strong economy, would likely point to retirement. Figure 20, below, shows that most of the Census block groups have more than 588 persons in each one who are not in the work force. Data from the state Department of Health and Senior Services show health data for Eastern Jackson County, which would include the CJCFPD. Medical services comprise a major part of the services delivered by the district, and during the next 10 years, as the number of elderly persons increase in the district, medical services will make up even more incidents.
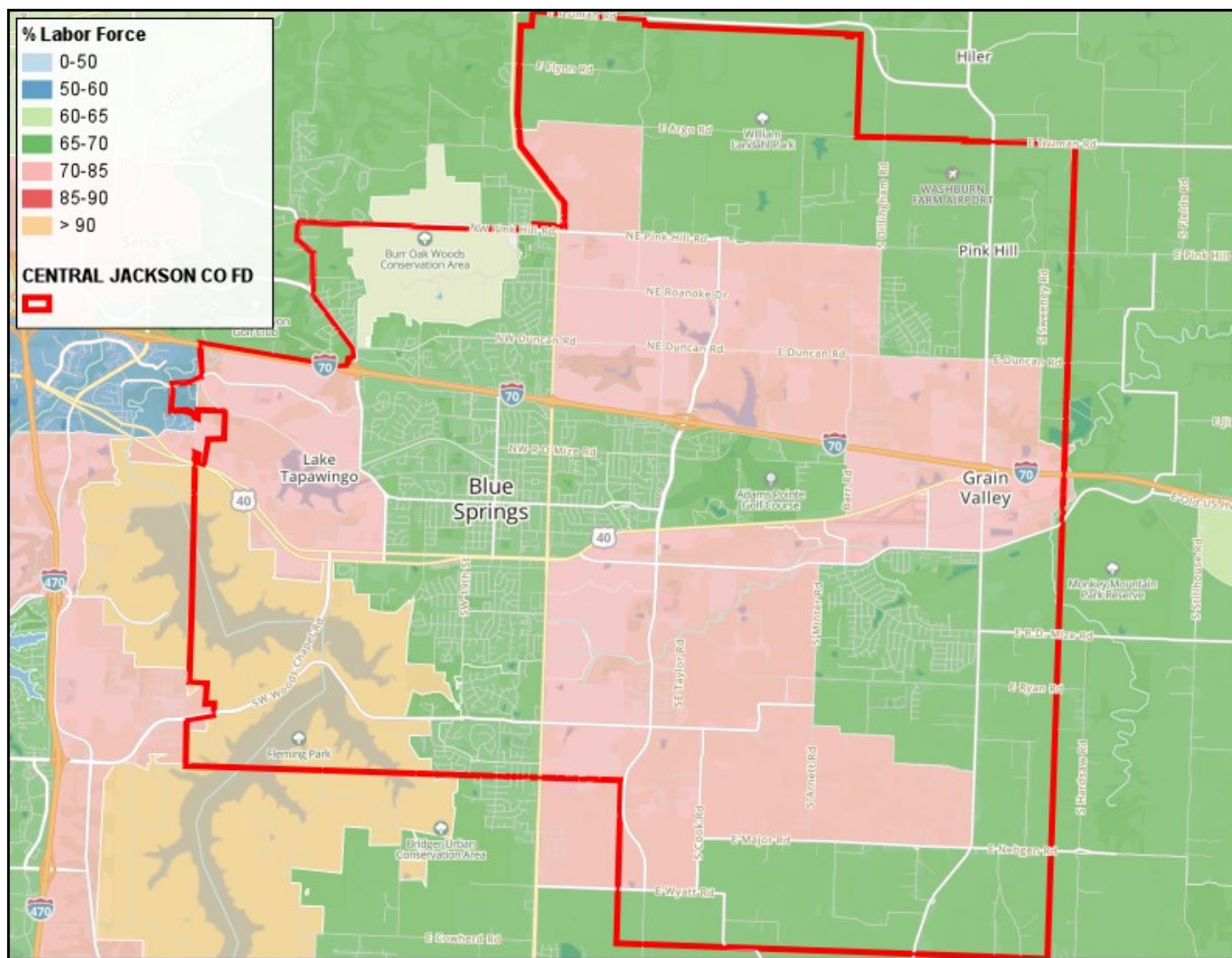
Figure 20. Not working is often an indicator of retirement. This map shows the percentage of how many persons 25 years old and older are in the workforce, and where they live. The green areas show were as high as 30 percent of the residents are not in the workforce. Given the strength of the local economy, the high non-participation percentage would more likely indicate retirement or nursing home residency.

Missouri Resident Death - Leading Causes Profile					
Eastern Jackson County					
Leading Cause of Death Indicators					
	Data Years	Count	Rate	State Rate	Significantly Different
Leading Causes of Death					
All Causes	2007 - 2017	21,647	776.23	815.85	L
Heart Disease	2007 - 2017	4,899	175.26	199.32	L
All Cancers (Malignant Neoplasms)	2007 - 2017	4,892	171.74	178.9	L
Lung Cancer	2007 - 2017	1,343	46.96	54.06	L
Breast Cancer	2007 - 2017	381	13.06	12.54	N/S
Colorectal Cancer	2007 - 2017	426	15.15	16.04	N/S
Chronic Lower Respiratory Disease	2007 - 2017	1,371	49.93	51.81	N/S
Total Unintentional Injuries	2007 - 2017	1,109	39.66	49.98	L
Accidental Poisoning	2007 - 2017	300	10.61	15.52	L
Motor Vehicle Accidents	2007 - 2017	295	10.79	14.62	L
Stroke/Other Cerebrovascular Disease	2007 - 2017	1,019	37.27	43.02	L
Alzheimer's Disease	2007 - 2017	836	30.99	28.09	H
Diabetes Mellitus	2007 - 2017	511	18.19	20.34	L
Kidney Disease (Nephritis and Nephrosis)	2007 - 2017	528	19.22	18.85	N/S
Pneumonia and Influenza	2007 - 2017	432	15.54	18.03	L
Suicide	2007 - 2017	422	15.19	15.45	N/S
Septicemia	2007 - 2017	309	11.1	11.32	N/S
Chronic Liver Disease and Cirrhosis	2007 - 2017	189	6.45	8.27	L
Other Causes of Interest					
Smoking-Attributable (estimated)	2007 - 2017	3,501	123.01	138.93	L
All Injuries and Poisonings	2007 - 2017	1,717	61.71	76.01	L
Homicide	2007 - 2017	151	5.64	8.17	L
Alcohol-Induced Deaths	2007 - 2017	200	6.62	6.53	N/S
Drug-Induced Deaths	2007 - 2017	331	11.62	17.86	L
Accidental Drug Poisonings	2007 - 2017	265	9.35	14.58	L
Injury by Firearms	2007 - 2017	320	11.72	15.48	L

Figure 21. Eastern Jackson County leading causes of death profile, from the Missouri Department of Health and Senior Services. Alzheimer's Disease, highlighted, is significantly higher than the statewide rate. All other causes are either lower or not significantly different from the statewide rate. (Eastern Jackson County is defined as Jackson County, with the cities of Kansas City and Independence removed.)

Eastern Jackson County Health Information Data Profiles:

Missouri Resident Death - Leading Causes Profile							
Indicator: Leading Causes of Death - Alzheimer's Disease							
Rank	**Geography**	**Data Years**	**Count**	**Rate**	**State Rate**	**Lower 95% Confidence Limit**	**Upper 95% Confidence Limit**	**Significantly Different**
	Missouri	*2007 - 2017*	*22,242*	*28.09*	*28.09*	*27.72*	*28.46*	
1	Lawrence	2007 - 2017	361	59.72	28.09	53.72	66.21	H
2	Madison	2007 - 2017	114	58.83	28.09	48.53	70.67	H
3	Butler	2007 - 2017	341	55.6	28.09	49.85	61.83	H
4	Douglas	2007 - 2017	125	55.6	28.09	46.28	66.24	H
5	Lincoln	2007 - 2017	246	51.96	28.09	45.67	58.88	H
6	Perry	2007 - 2017	154	48.66	28.09	41.28	56.98	H
7	Dunklin	2007 - 2017	222	48.35	28.09	42.2	55.15	H
8	Wright	2007 - 2017	132	46.39	28.09	38.81	55.01	H
9	Howell	2007 - 2017	277	44.75	28.09	39.63	50.34	H
10	Iron	2007 - 2017	64	42.87	28.09	33.02	54.74	H
58	**Eastern Jackson County**	**2007 - 2017**	**836**	**30.99**	**28.09**	**28.89**	**33.09**	**H**
59	St. Clair	2007 - 2017	64	30.76	28.09	23.69	39.28	N/S

Figure 22. Missouri leading causes of death-Alzheimer's Disease profile. Eastern Jackson County is ranked 58th statewide in deaths caused by Alzheimer's. (Note: There are 114 counties in Missouri, to give perspective on the rankings.)

Missouri Inpatient Hospitalizations Profile

Indicator: Heart and Circulation - Heart Disease

Rank	Geography	Data Years	Count	Rate	State Rate	Lower 95% Confidence	Upper 95% Confidence	Significantly Different
	Missouri	*2015*	*72,507*	*100.18*	*100.18*	*99.45*	*100.91*	
1	Dunklin	2015	565	145.81	100.18	133.79	157.83	H
2	Butler	2015	786	141.46	100.18	131.57	151.35	H
3	Iron	2015	197	140.21	100.18	121.31	161.22	H
4	Pemiscot	2015	283	136.96	100.18	121.47	153.88	H
5	Henry	2015	423	136.35	100.18	123.66	149.98	H
6	Independence	2015	1,993	135.57	100.18	129.62	141.52	H
7	Bates	2015	298	133.61	100.18	118.87	149.67	H
8	St. Louis City	2015	4,208	131.31	100.18	127.34	135.28	H
9	St. Francois	2015	1,015	129.03	100.18	121.09	136.97	H
10	Harrison	2015	159	128.94	100.18	109.68	150.61	H
26	Eastern Jackson County	2015	3,179	117.61	100.18	113.52	121.7	H
27	Ray	2015	343	116.81	100.18	104.77	129.85	H

Figure 23. Missouri Inpatient Hospitalizations Profile-Indicator: Heart Disease. Eastern Jackson County ranks 26th in the state for heart disease hospitalizations.

Missouri Inpatient Hospitalizations Profile

Indicator: Congestive Heart Failure

Rank	Geography	Data Years	Count	Rate	State Rate	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Significantly Different
	Missouri	*2007 - 2017*	*19,812*	*24.98*	*24.98*	*24.63*	*25.33*	
1	Oregon	2007 - 2017	389	214.2	24.98	193.4	236.53	H
2	Carroll	2007 - 2017	113	65.7	24.98	54.15	78.99	H
3	Iron	2007 - 2017	93	59.87	24.98	48.32	73.34	H
4	Bates	2007 - 2017	148	54.29	24.98	45.9	63.77	H
5	Reynolds	2007 - 2017	57	52.63	24.98	39.86	68.19	H
6	Macon	2007 - 2017	160	52.07	24.98	44.31	60.79	H
7	Pike	2007 - 2017	129	50.4	24.98	42.08	59.89	H
8	Mississippi	2007 - 2017	92	47.88	24.98	38.6	58.72	H
9	South Central Ozark	2007 - 2017	924	46.16	24.98	43.18	49.14	H
10	Ray	2007 - 2017	134	44.12	24.98	36.97	52.25	H
44	Eastern Jackson County	2007 - 2017	873	31.78	24.98	29.67	33.89	H
45	Cass	2007 - 2017	398	31.51	24.98	28.49	34.76	H

Figure 24. Missouri Inpatient Hospitalizations Profile– Indicator: Congestive Heart Failure.
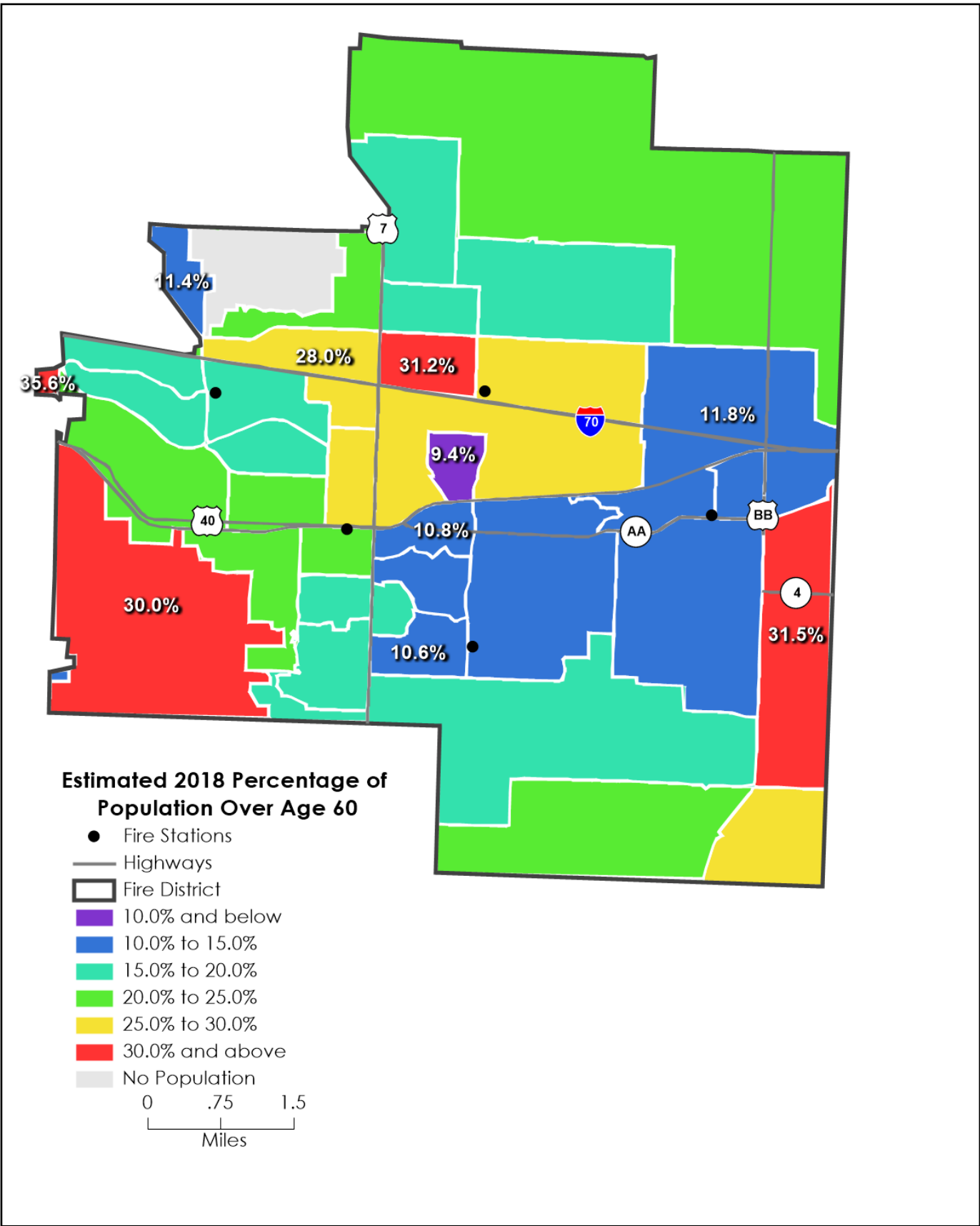
Figure 25. Estimated 2018 Percentage of population over age 60 in CJCFPD.
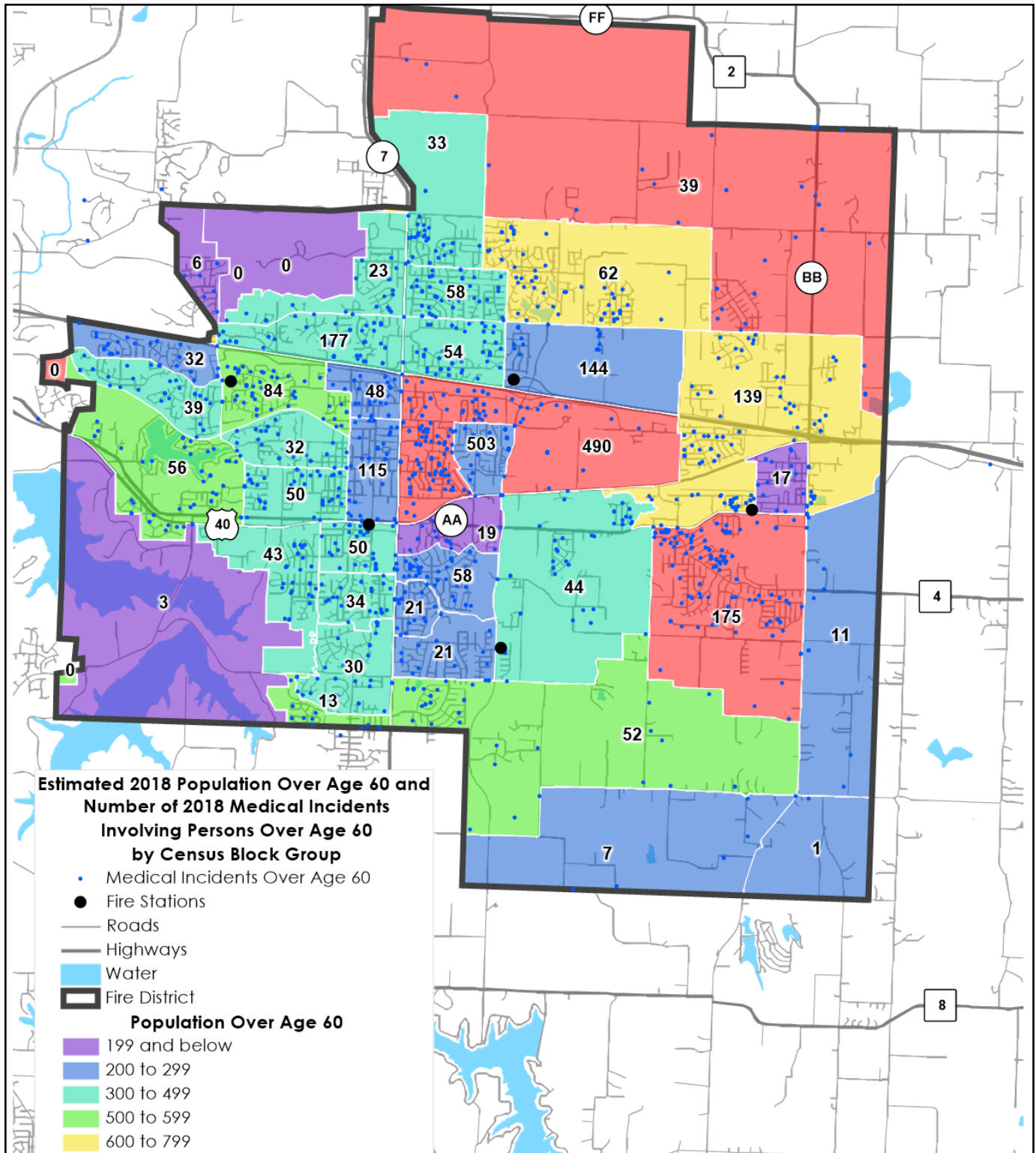
Figure 26. Estimated 2018 Population over age 60 and number of medical incidents in CJCFPD. The map is based on actual CJCFPD data that was geocoded and then summed by Census block. The shading on the map shows the number of persons over 60 years old based on our demographic data. The numbers show the number of medical incidents. (The specific codes used to produce this map are: 300, 311, 320, 321, 322, 323, 324, 331, 340, 350, 353, 354 and 381.)

Page 31

Central Jackson County Fire Protection District

Eastern Jackson County Health Information Data Profiles

Missouri Resident Chronic Disease Comparisons Profile					
Eastern Jackson County					
	Data Years	**Count**	**Rate**	**State Rate**	**Significantly Different**
Heart Disease					
Deaths	2007 - 2017	4,899	175.26	199.32	L
Hospitalizations	2011 - 2015	14,630	110.83	109.46	N/S
ER Visits	2011 - 2015	17,847	13.91	15.12	L
Ischemic Heart Disease					
Deaths	2007 - 2017	2,613	92.97	124.16	L
Hospitalizations	2011 - 2015	4,187	30.91	32.53	L
ER Visits	2011 - 2015	329	0.24	0.57	L
Stroke/Other Cerebrovascular Disease					
Deaths	2007 - 2017	1,019	37.27	43.02	L
Hospitalizations	2011 - 2015	3,318	25.3	27.85	L
ER Visits	2011 - 2015	882	0.67	0.77	L
All Cancers (Malignant Neoplasms)					
Deaths	2007 - 2017	4,892	171.74	178.9	L
Hospitalizations	2011 - 2015	4,014	29.53	29.93	N/S
Colorectal Cancer					
Deaths	2007 - 2017	426	15.15	16.04	N/S
Hospitalizations	2011 - 2015	475	3.61	3.9	N/S
Colon and Rectum Cancer (SEER)					
Deaths	2007 - 2017	422	15.03	15.82	N/S
Lung Cancer (SEER)					
Deaths	2007 - 2017	1,343	46.96	54.04	L
Hospitalizations	2011 - 2015	461	3.43	4.01	L

Figure 27. Eastern Jackson County Chronic Disease Comparison Profile.

Missouri Resident Chronic Disease Comparisons Profile
Eastern Jackson County

	Data Years	Count	Rate	State Rate	Significantly Different
Breast Cancer					
Deaths	2007 - 2017	381	13.06	12.54	N/S
Hospitalizations	2011 - 2015	157	1.16	1.1	N/S
Cervical Cancer					
Deaths	2007 - 2017	30	1.03	1.33	N/S
Hospitalizations	2011 - 2015	81	0.63	0.45	H
Prostate Cancer					
Deaths	2007 - 2017	187	6.95	7.52	N/S
Hospitalizations	2011 - 2015	243	1.61	1.86	N/S
Diabetes Mellitus					
Deaths	2007 - 2017	511	18.19	20.34	L
Hospitalizations	2011 - 2015	2,048	15.61	18.78	L
ER Visits	2011 - 2015	2,209	1.7	1.96	L
Chronic Obstructive Pulmonary Disease Excluding Asthma					
Deaths	2007 - 2017	1,346	49.09	50.71	N/S
Hospitalizations	2011 - 2015	2,467	18.31	20.64	L
ER Visits	2011 - 2015	6,230	4.82	5.54	L
Asthma					
Deaths	2007 - 2017	25	0.84	1.1	N/S
Hospitalizations	2011 - 2015	1,157	8.8	11.27	L
ER Visits	2011 - 2015	5,369	4.26	5.39	L
Smoking-Attributable (Estimated)					
Deaths	2007 - 2017	3,501	123.01	138.93	L
Arthritis/Lupus					
Deaths	2007 - 2017	69	2.45	2.94	N/S
Hospitalizations	2011 - 2015	6,238	45.05	42.91	H
ER Visits	2011 - 2015	11,772	9.24	10.91	L

Figure 27. (cont) Eastern Jackson County Chronic Disease Comparison Profile.

Central Jackson County Fire Protection District

Incident	2009	2010	2011	2012	2013	2014	2015	2016	2017
Abdominal Aortic Aneurysm	0	3	2	1	2	5	2	0	0
Abdominal Pain/Problems	157	169	163	149	160	152	166	202	237
Airway Obstruction	9	11	9	8	6	11	8	9	7
Allergic Reaction	16	13	19	15	15	14	33	21	19
Altered Level of Consciousness	122	125	148	142	149	119	132	168	175
Asthma	21	27	23	21	17	17	20	15	16
Back Pain (Non-Traumatic)	59	78	63	68	54	67	60	88	85
Behavioral/Psychiatric Disorder	195	136	128	157	143	160	197	193	241
Bowel Obstruction	2	6	5	6	6	0	1	4	3
Cancer	81	3	7	3	4	6	1	4	3
Cardiac Arrest	41	21	33	47	65	49	48	64	52
Cardiac Rhythm Disturbance	47	37	39	35	34	38	42	39	38
Chest Pain/Discomfort	215	271	227	248	262	232	331	312	315
CHF (Congestive Heart Failure)	18	17	17	14	15	9	5	13	8
COPD (Emphysema/Chronic Bronchitis)	16	33	29	31	20	37	34	29	30
Dehydration	18	23	8	21	16	10	17	24	19
Diabetic Hyperglycemia	9	20	24	22	17	21	20	32	43
Diabetic Symptoms (Hypoglycemia)	89	65	93	76	87	79	79	68	75
Diarrhea	9	12	5	6	6	11	13	10	5
Electrocution	0	1	0	2	1	0	0	1	3
Epistaxis (Non-Traumatic)	11	10	6	12	7	6	8	14	20
ETOH Abuse	36	47	46	61	61	60	75	80	101
Fever	32	27	22	26	23	18	22	31	34
G.I. Bleed	20	37	25	14	16	28	30	35	35
General Malaise	62	78	65	43	55	71	96	74	61
Headache	47	47	50	30	40	53	46	57	70
Heat Exhaustion/Stroke	13	11	15	7	9	7	8	13	9
Hypertension	14	10	9	10	11	20	9	16	24
Hypotension	17	6	12	20	11	8	15	10	24
Hypothermia	2	0	0	0	1	1	1	3	0
Hypovolemia/Shock	0	1	1	0	2	2	2	1	5
Inhalation Injury (Toxic Gas)	4	3	1	2	1	1	0	0	4
Medical Transport (Transfer)	403	958	974	879	852	770	797	846	825
Migraine	2	2	2	2	2	0	2	1	1
Nausea/Vomiting (Unknown Etiology)	68	77	71	84	85	82	86	90	149
No Apparent Illness/Injury	289	184	157	127	121	148	134	123	145
Not Applicable	126	10	3	6	2	1	1	1	0
Not Reported	281	289	268	330	303	342	411	380	439
OB/Delivery	7	6	8	5	8	5	6	6	5
Obvious Death	40	40	38	40	36	19	21	18	29
Other Abdominal/GI Problem	35	15	12	5	6	9	9	20	16
Other Cardiovascular Problem	25	5	6	3	7	7	8	5	3
Other Endocrine/Metabolic Problem	4	1	1	0	0	2	2	6	10
Other GU Problems	12	10	9	5	10	13	19	26	21
Other Illness/Injury	589	353	266	233	295	283	334	360	366
Other OB/Gyn	7	8	3	2	2	7	5	6	5
Pain	530	265	136	165	160	166	219	254	224
Patient Assist Only	35	9	4	3	2	1	4	2	1
Poisoning/Drug Ingestion	57	61	72	78	82	77	76	66	80
Pregnancy/OB Delivery	3	1	3	1	7	2	6	8	7
Respiratory Arrest	3	2	5	2	0	3	1	2	5
Respiratory Distress	176	190	194	223	206	239	272	272	290
Seizure	157	131	177	170	184	185	157	201	166
Sepsis	21	12	8	16	13	9	13	14	17
Sexual Assault/Rape	1	1	2	1	4	2	0	1	1
Smoke Inhalation	2	0	1	5	3	1	3	5	1
Stings/Venomous Bites	2	1	2	2	0	1	0	1	1
Stroke/CVA	70	45	49	42	39	50	41	55	40
Substance/Drug Abuse	34	32	26	45	37	45	35	54	43
Syncope/Fainting	111	87	128	147	133	134	136	165	203
TIA (Transient Ischemic Attack)	8	17	17	12	9	11	20	10	13
Toxic Exposure	5	4	3	2	3	2	2	2	3
Traumatic Injury	381	824	995	915	944	915	979	1122	1081
Unconscious	26	23	24	23	17	17	19	20	20
Unknown Problem	50	31	14	24	26	18	15	15	29
Vaginal Hemorrhage	4	5	2	7	2	5	3	2	3
Weakness	124	96	105	104	116	148	201	201	246
Grand Total	5,070	5,143	5,079	5,005	5,032	5,031	5,558	5,990	6,249

Figure 28. Incidents requiring emergency room visits within the CJCFPD.

Top 5 Situations Found Upon Arrival, 2009-2017
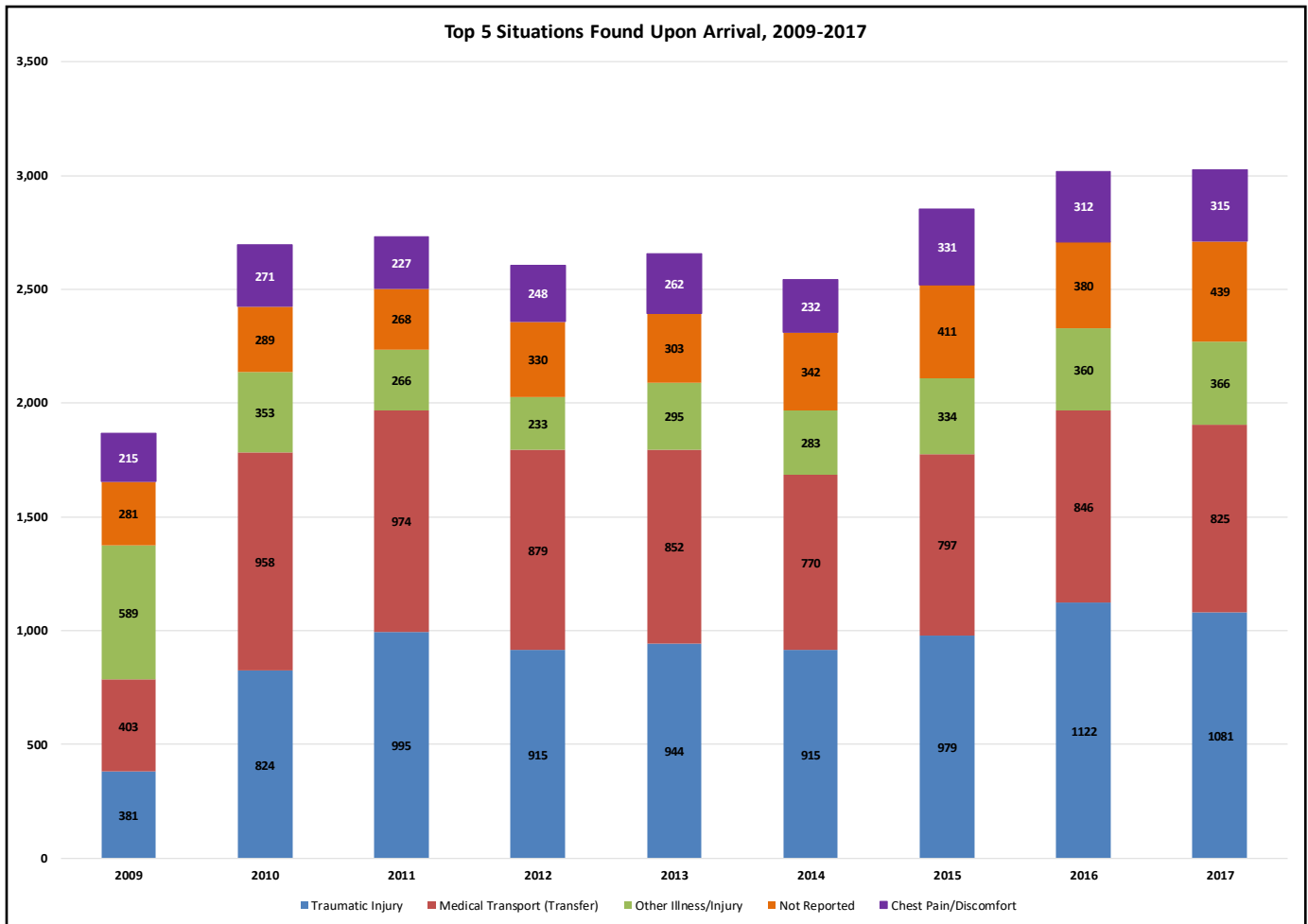
Figure 29. Top 5 situations found upon arrival, 2009-2017 in the district.

PAGE DELIBERATELY LEFT BLANK

Number of Social Security Insurance Payments, 2003,2007,2012,2017, in CJCFP District Zip Codes
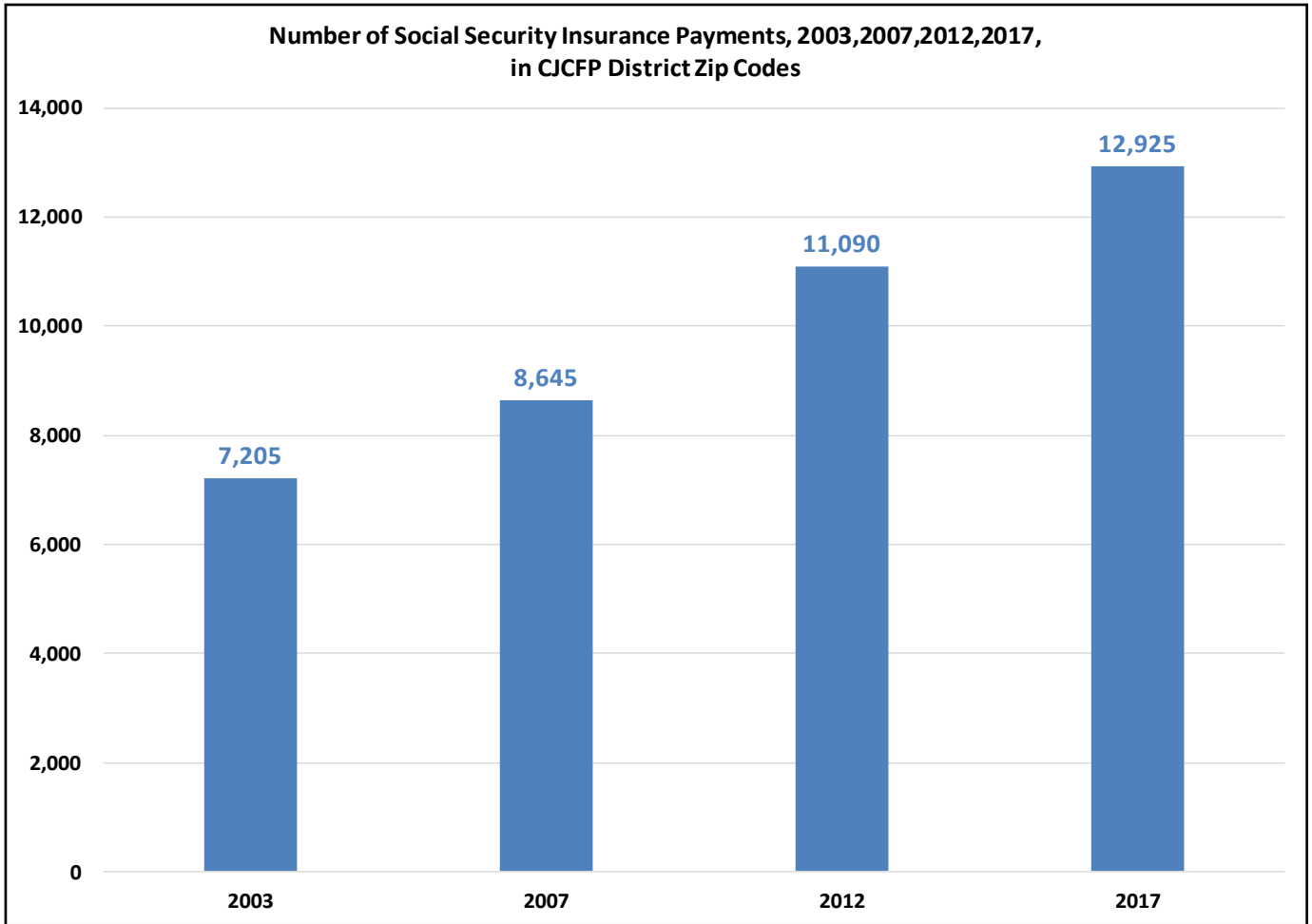
Figure 30. Total of Social Security Insurance payments, 2003, 2007, 2012 and 2017, for ZIP codes within the CJCFPD. This shows how the number of persons receiving the SSI payments has nearly doubled since 2003.

Central Jackson County Fire Protection District

STI: PopStats Population Summary	CENTRAL JACKSON COUNTY FIRE PROTECTION DISTRICT		Blue Springs city, MO		Grain Valley city, MO		Lake Tapawingo city, MO	
		%		%		%		%
Population								
2028 Forecast	77,433		57,977		15,776		564	
2023 Projection	75,095		56,391		15,139		558	
2018 Estimate	72,586		54,838		14,324		559	
2010 Census	67,697		52,575		12,854		730	
2000 Census	55,908		47,488		6,164		458	
1990 Census	44,780		40,167		2,874		361	
Growth 2028-2023	3.11%		2.81%		4.20%		1.15%	
Growth 2023-2018	3.46%		2.83%		5.69%		-0.16%	
Growth 2018-2010	7.22%		4.30%		11.43%		-23.46%	
Growth 2010-2000	21.09%		10.71%		108.53%		59.48%	
2018 Estimated Population by Ethnicity	**72,586**		**54,838**		**14,324**		**559**	
White	64,123	88%	47,892	87%	13,155	92%	477	85%
Black	3,927	5%	3,433	6%	326	2%	47	8%
Asian	815	1%	725	1%	74	1%	5	1%
Other	3,721	5%	2,787	5%	769	5%	30	5%
2018 Estimated Population Hispanic or Latino	3,462		2,596		738		20	
2018 Estimated Total Population by Age	**72,586**		**54,838**		**14,324**		**559**	
Age 0 to 4	4,726	7%	3,463	6%	1,050	7%	33	6%
Age 5 to 14	9,033	12%	6,480	12%	2,124	15%	62	11%
Age 14 to 18	4,413	6%	3,195	6%	1,012	7%	26	5%
Age 18 to 22	4,570	6%	3,472	6%	892	6%	26	5%
Age 22 to 25	2,920	4%	2,293	4%	497	3%	19	3%
Age 25 to 30	4,554	6%	3,545	6%	805	6%	31	6%
Age 30 to 35	4,300	6%	3,263	6%	866	6%	26	5%
Age 35 to 40	4,959	7%	3,579	7%	1,167	8%	35	6%
Age 40 to 45	4,929	7%	3,509	6%	1,188	8%	36	6%
Age 45 to 50	4,851	7%	3,553	6%	1,048	7%	35	6%
Age 50 to 55	4,617	6%	3,544	6%	852	6%	36	6%
Age 55 to 60	4,708	6%	3,727	7%	766	5%	40	7%
Age 60 to 65	4,283	6%	3,442	6%	631	4%	41	7%
Age 65 to 70	3,717	5%	2,988	5%	535	4%	41	7%
Age 70 to 75	2,810	4%	2,256	4%	400	3%	32	6%
Age 75 to 80	1,650	2%	1,312	2%	245	2%	20	4%
Age 80 to 85	915	1%	720	1%	143	1%	12	2%
Age 85 and over	629	1%	497	1%	102	1%	6	1%
2018 Median Age	36.8		37.4		34.5		42.8	
2018 Average Age	37.4		38.0		34.6		41.5	
2018 Estimated Population Age 25+ by Educational Attainment	**46,923**		**35,935**		**8,748**		**392**	
Less than 9th grade	434	1%	269	1%	127	1%	6	2%
Some High School, no diploma	2,215	5%	1,548	4%	634	7%	13	3%
High School Graduate (or GED)	13,051	28%	9,418	26%	2,973	34%	91	23%
Some College, no degree	12,244	26%	9,439	26%	2,174	25%	111	28%
Associate Degree	3,700	8%	2,920	8%	600	7%	33	8%
Bachelor's Degree	10,006	21%	8,120	23%	1,423	16%	85	22%
Master's Degree	3,957	8%	3,171	9%	610	7%	35	9%
Professional School Degree	907	2%	728	2%	129	1%	7	2%
Doctorate Degree	409	1%	321	1%	78	1%	12	3%

Figure 31. Third-party demographic data for the CJCFPD, 2018.

ation

Business Information Services, LLC

STI: PopStats Household Summary

STI: PopStats Household Summary	CENTRAL JACKSON COUNTY FIRE PROTECTION DISTRICT	%	Blue Springs city, MO	%	Grain Valley city, MO	%	Lake Tapawingo city, MO	%
Households								
2028 Forecast	28,551		21,484		5,641		253	
2023 Projection	27,700		20,904		5,412		250	
2018 Estimate	26,799		20,348		5,116		250	
2010 Census	25,032		19,522		4,566		342	
2000 Census	20,322		17,150		2,237		194	
1990 Census	15,254		13,601		967		133	
Growth 2028-2023	3.07%		2.78%		4.23%		1.10%	
Growth 2023-2018	3.37%		2.73%		5.78%		-0.10%	
Growth 2018-2010	7.06%		4.23%		12.06%		-26.76%	
Growth 2010-2000	23.18%		13.83%		104.10%		76.74%	
Population in Households								
2028 Forecast	77,200		57,780		15,750		560	
2023 Projection	74,858		56,191		15,112		558	
2018 Estimate	72,350		54,637		14,296		559	
Average Household Size								
2028 Forecast	2.70		2.69		2.79		2.23	
2023 Projection	2.70		2.69		2.79		2.23	
2018 Estimated	2.70		2.69		2.79		2.23	
2018 Estimated Families by Number of Workers in Family	**20,084**		**15,203**		**3,881**		**188**	
No workers	2,268	11%	1,735	11%	400	10%	28	15%
1 worker	5,670	28%	4,360	29%	1,037	27%	67	36%
2 workers	9,581	48%	7,228	48%	1,885	49%	75	40%
3 or more workers	2,564	13%	1,880	12%	559	14%	18	10%
2018 Estimated Housing Units by Tenure	**28,273**		**21,440**		**5,421**		**267**	
Vacant Housing Units	1,474	5%	1,092	5%	304	6%	17	6%
Occupied Housing Units	26,799	95%	20,348	95%	5,116	94%	250	94%
Owner-Occupied	19,053	67%	14,605	68%	3,437	63%	191	72%
Renter-Occupied	7,746	27%	5,743	27%	1,679	31%	59	22%
2018 Estimated Per Capita Income	$ 29,294		$ 30,049		$ 25,451		$ 38,467	

Figure 32. Third-party demographic data for the CJCFPD, 2018.

Central Jackson County Fire Protection District

Business Information Services, LLC							
Ten Year Projected Population by Age and Sex							
Ten Year Projected Population by Age and Sex	CENTRAL JACKSON COUNTY FIRE PROTECTION DISTRICT		Blue Springs city, MO		Grain Valley city, MO		Lake Tapawingo city, MO	
		%		%		%		%
Ten Year Projected Total Population	**77,433**		**57,977**		**15,776**		**564**	
Age 0 to 4	4,769	6%	3,599	6%	952	6%	31	5%
Age 5 to 14	8,440	11%	6,239	11%	1,815	12%	58	10%
Age 14 to 18	3,915	5%	2,815	5%	914	6%	29	5%
Age 18 to 22	4,186	5%	2,949	5%	1,028	7%	29	5%
Age 22 to 25	3,334	4%	2,406	4%	767	5%	19	3%
Age 25 to 30	5,585	7%	4,120	7%	1,204	8%	33	6%
Age 30 to 35	5,365	7%	4,106	7%	1,012	6%	33	6%
Age 35 to 40	4,608	6%	3,570	6%	829	5%	31	6%
Age 40 to 45	4,339	6%	3,269	6%	892	6%	26	5%
Age 45 to 50	4,977	6%	3,568	6%	1,187	8%	35	6%
Age 50 to 55	4,902	6%	3,468	6%	1,196	8%	36	6%
Age 55 to 60	4,742	6%	3,455	6%	1,038	7%	34	6%
Age 60 to 65	4,427	6%	3,381	6%	829	5%	34	6%
Age 65 to 70	4,398	6%	3,467	6%	728	5%	37	7%
Age 70 to 75	3,739	5%	2,994	5%	561	4%	36	6%
Age 75 to 80	2,894	4%	2,323	4%	419	3%	32	6%
Age 80 to 85	1,871	2%	1,501	3%	267	2%	21	4%
Age 85 and over	940	1%	747	1%	140	1%	11	2%
Median Age	38.4		38.9		36.2		43.6	
Average Age	39.7		40.2		37.7		43.0	
Ten Year Projected Male Population	37,717		28,155		7,773		267	
Age 0 to 4	2,454	3%	1,853	3%	490	3%	16	3%
Age 5 to 14	4,344	6%	3,212	6%	934	6%	30	5%
Age 14 to 18	2,009	3%	1,447	2%	467	3%	15	3%
Age 18 to 22	2,118	3%	1,486	3%	525	3%	14	3%
Age 22 to 25	1,693	2%	1,206	2%	404	3%	10	2%
Age 25 to 30	2,864	4%	2,091	4%	639	4%	17	3%
Age 30 to 35	2,750	4%	2,107	4%	522	3%	17	3%
Age 35 to 40	2,326	3%	1,799	3%	420	3%	17	3%
Age 40 to 45	2,131	3%	1,633	3%	415	3%	12	2%
Age 45 to 50	2,389	3%	1,733	3%	553	4%	16	3%
Age 50 to 55	2,328	3%	1,634	3%	584	4%	16	3%
Age 55 to 60	2,266	3%	1,633	3%	513	3%	14	3%
Age 60 to 65	2,110	3%	1,592	3%	408	3%	16	3%
Age 65 to 70	1,983	3%	1,556	3%	331	2%	17	3%
Age 70 to 75	1,655	2%	1,332	2%	241	2%	15	3%
Age 75 to 80	1,237	2%	992	2%	180	1%	14	2%
Age 80 to 85	757	1%	605	1%	108	1%	8	1%
Age 85 and over	302	0%	244	0%	40	0%	4	1%
Male Median Age	36.3		36.9		34.1		39.5	
Male Average Age	38.3		38.7		36.5		41.0	
Ten Year Projected Female Population	39,716		29,822		8,003		297	
Age 0 to 4	2,314	3%	1,746	3%	462	3%	15	3%
Age 5 to 14	4,096	5%	3,027	5%	881	6%	28	5%
Age 14 to 18	1,906	2%	1,368	2%	447	3%	14	3%
Age 18 to 22	2,068	3%	1,463	3%	502	3%	14	3%
Age 22 to 25	1,641	2%	1,200	2%	363	2%	9	2%
Age 25 to 30	2,722	4%	2,028	3%	565	4%	16	3%
Age 30 to 35	2,615	3%	1,999	3%	490	3%	17	3%
Age 35 to 40	2,282	3%	1,771	3%	408	3%	14	3%
Age 40 to 45	2,208	3%	1,636	3%	476	3%	15	3%
Age 45 to 50	2,588	3%	1,834	3%	635	4%	18	3%
Age 50 to 55	2,574	3%	1,835	3%	612	4%	20	3%
Age 55 to 60	2,477	3%	1,822	3%	525	3%	19	3%
Age 60 to 65	2,318	3%	1,789	3%	420	3%	18	3%
Age 65 to 70	2,415	3%	1,911	3%	397	3%	20	4%
Age 70 to 75	2,085	3%	1,662	3%	320	2%	21	4%
Age 75 to 80	1,656	2%	1,331	2%	239	2%	19	3%
Age 80 to 85	1,115	1%	897	2%	159	1%	13	2%
Age 85 and over	638	1%	503	1%	100	1%	7	1%
Median Age	40.5		40.9		38.5		46.7	
Female Average Age	41.0		41.6		38.9		44.7	

Figure 33. Third-party demographic data for the CJCFPD, 2018.

Current Year Estimated Owner-Occupied Housing Units by Value	CENTRAL JACKSON COUNTY FIRE PROTECTION DISTRICT		Blue Springs city, MO		Grain Valley city, MO		Lake Tapawingo city, MO	
Business Information Services, LLC **Current Year Estimated Owner-Occupied Housing Units by Value**								
		%		%		%		%
Current Year Estimated Owner-Occupied Housing Units by Value	**19,053**		**14,605**		**3,437**		**191**	
Less than $10,000	195	1%	133	1%	51	1%	3	1%
$10,000 to $14,999	46	0%	46	0%	4	0%	0	0%
$15,000 to $19,999	126	1%	77	1%	44	1%	1	0%
$20,000 to $24,999	77	0%	71	0%	6	0%	0	0%
$25,000 to $29,999	57	0%	25	0%	18	1%	0	0%
$30,000 to $34,999	24	0%	21	0%	2	0%	0	0%
$35,000 to $39,999	53	0%	42	0%	4	0%	1	0%
$40,000 to $49,999	41	0%	29	0%	8	0%	0	0%
$50,000 to $59,999	107	1%	85	1%	7	0%	7	4%
$60,000 to $69,999	131	1%	105	1%	8	0%	8	4%
$70,000 to $79,999	98	1%	77	1%	13	0%	0	0%
$80,000 to $89,999	126	1%	109	1%	11	0%	0	0%
$90,000 to $99,999	270	1%	163	1%	100	3%	1	0%
$100,000 to $124,999	1,178	6%	888	6%	224	7%	12	6%
$125,000 to $149,999	2,020	11%	1,679	11%	257	7%	14	7%
$150,000 to $174,999	2,746	14%	2,187	15%	475	14%	12	6%
$175,000 to $199,999	2,689	14%	2,188	15%	461	13%	11	6%
$200,000 to $249,999	3,785	20%	2,744	19%	852	25%	32	17%
$250,000 to $299,999	2,047	11%	1,461	10%	423	12%	36	19%
$300,000 to $399,999	1,969	10%	1,568	11%	265	8%	35	18%
$400,000 to $499,999	591	3%	458	3%	87	3%	12	6%
$500,000 to $749,999	513	3%	334	2%	96	3%	7	3%
$750,000 to $1,000,000	116	1%	82	1%	17	0%	2	1%
$1,000,000 or more	46	0%	35	0%	6	0%	1	0%
Median Housing Unit Value	$ 195,728		$ 192,903		$ 201,535		$ 244,246	
Average Housing Unit Value	$ 222,660		$ 220,812		$ 217,350		$ 258,645	

Figure 34. Third-party demographic data for the CJCFPD, 2018.

PAGE DELIBERATELY LEFT BLANK

Incident Count
Detailed Analysis in the CJCFPD

PAGE DELIBERATELY LEFT BLANK

Page 44

We analyzed the CJCFPD incident data two different ways. First, there was a total of 72,616 incidents if all apparatus that responded on an incident are counted. (The analysis on the apparatus, starting on p. 112 include all the records.) However, for the analysis of types of incidents, we eliminate the duplicate vehicle records, and worked with 36,972 unique incidents, which are shown on this page.

The table and pie chart on this page shows that medical incidents account for 74 percent of all the district's incidents. Other calls account for 26.3 percent of all incidents.

Incident Distribution by Category for Central Jackson County Fire Protection District 2014-2018												
	2014		2015		2016		2017		2018			
Incident Category	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Grand Total	Percent
Medical Codes: 300,311,320,321,322,323,324, 331,340,350,353,354,381	4,780	72.9%	5,215	72.9%	5,630	74.3%	5,883	74.6%	5,805	74.2%	27,313	73.9%
Fires, Public Assistance, Special Calls	1,774	27.1%	1,934	27.1%	1,946	25.7%	2,001	25.4%	2,014	25.8%	9,659	26.1%
Grand Total	6,554	100.0%	7,149	100.0%	7,576	100.0%	7,884	100.0%	7,819	100.0%	36,972	100.0%

Incident Distribution for CJCFPD, 2018

Fires, Public Assistance, Special Calls
2,014, 25.8%

Medical Incidents
5,805, 74.2%
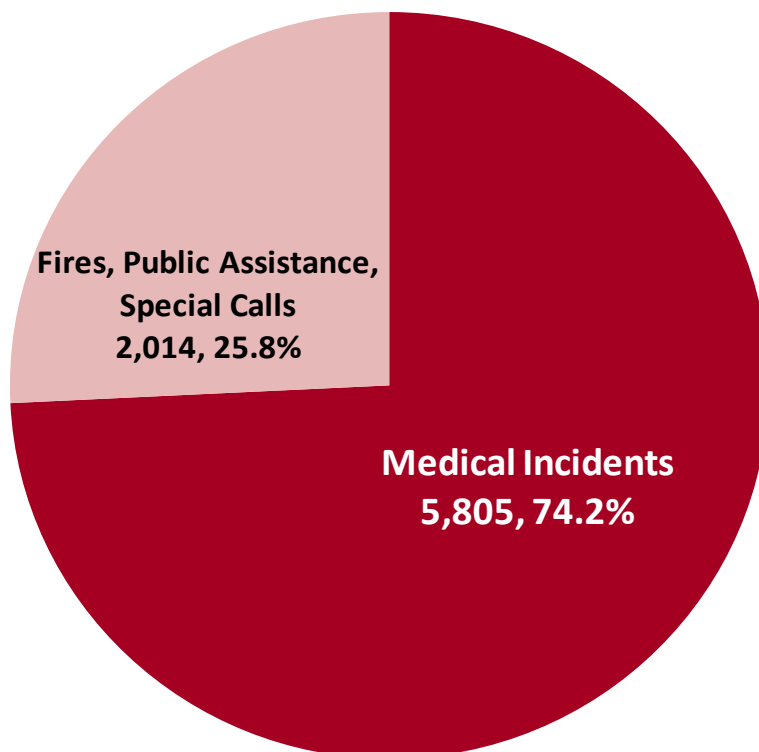
Figures 35-36. Incident distribution for CJCFPD, 2018.

Central Jackson County Fire Protection District

Incidents:

Year	2014	2015	2016	2017	2018	Grand Total
	6,544	7,149	7,576	7,884	7,819	36,972

Month	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Jan	575	8.8%	593	8.3%	571	7.5%	711	9.0%	634	8.1%	3,084	8.3%
Feb	488	7.5%	548	7.7%	576	7.6%	651	8.3%	604	7.7%	2,867	7.8%
Mar	561	8.6%	583	8.2%	645	8.5%	627	8.0%	655	8.4%	3,071	8.3%
Apr	560	8.6%	574	8.0%	658	8.7%	641	8.1%	632	8.1%	3,065	8.3%
May	569	8.7%	595	8.3%	580	7.7%	677	8.6%	681	8.7%	3,102	8.4%
Jun	508	7.8%	573	8.0%	615	8.1%	637	8.1%	621	7.9%	2,954	8.0%
Jul	554	8.5%	594	8.3%	678	8.9%	687	8.7%	618	7.9%	3,131	8.5%
Aug	546	8.3%	586	8.2%	689	9.1%	691	8.8%	682	8.7%	3,194	8.6%
Sep	557	8.5%	606	8.5%	612	8.1%	642	8.1%	664	8.5%	3,081	8.3%
Oct	533	8.1%	653	9.1%	652	8.6%	644	8.2%	655	8.4%	3,137	8.5%
Nov	526	8.0%	632	8.8%	608	8.0%	621	7.9%	648	8.3%	3,035	8.2%
Dec	567	8.7%	612	8.6%	692	9.1%	655	8.3%	725	9.3%	3,251	8.8%
Total	6,544	100.0%	7,149	100.0%	7,576	100.0%	7,884	100.0%	7,819	100.0%	36,972	100.0%

Quarter	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1st	1,624	24.8%	1,724	24.1%	1,792	25.1%	1,989	25.2%	1,893	24.2%	9,022	24.4%
2nd	1,637	25.0%	1,742	24.4%	1,853	25.9%	1,955	24.8%	1,934	24.7%	9,121	24.7%
3rd	1,657	25.3%	1,786	25.0%	1,979	27.7%	2,020	25.6%	1,964	25.1%	9,406	25.4%
4th	1,626	24.8%	1,897	26.5%	1,952	27.3%	1,920	24.4%	2,028	25.9%	9,423	25.5%
Total	6,544	100.0%	7,149	100.0%	7,576	100.0%	7,884	100.0%	7,819	100.0%	36,972	100.0%

Day of Week	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Sunday	858	13.1%	964	13.5%	1,023	13.5%	1,050	13.3%	997	12.8%	4,892	13.2%
Monday	973	14.9%	1,117	15.6%	1,067	14.1%	1,124	14.3%	1,136	14.5%	5,417	14.7%
Tuesday	935	14.3%	1,010	14.1%	1,091	14.4%	1,163	14.8%	1,153	14.7%	5,352	14.5%
Wednesday	947	14.5%	984	13.8%	1,096	14.5%	1,173	14.9%	1,143	14.6%	5,343	14.5%
Thursday	866	13.2%	1,086	15.2%	1,144	15.1%	1,097	13.9%	1,162	14.9%	5,355	14.5%
Friday	1,025	15.7%	1,049	14.7%	1,096	14.5%	1,164	14.8%	1,130	14.5%	5,464	14.8%
Saturday	940	14.4%	939	13.1%	1,059	14.0%	1,113	14.1%	1,098	14.0%	5,149	13.9%
Total	6,544	100.0%	7,149	100.0%	7,576	100.0%	7,884	100.0%	7,819	100.0%	36,972	100.0%

Time of Day	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Morning	1,080	16.5%	1,186	16.6%	1,224	16.2%	1,288	16.3%	1,265	16.2%	6,043	16.3%
Afternoon	2,071	31.6%	2,124	29.7%	2,305	30.4%	2,502	31.7%	2,229	28.5%	11,231	30.4%
Evening	1,969	30.1%	2,156	30.2%	2,261	29.8%	2,290	29.0%	2,135	27.3%	10,811	29.2%
Night	1,424	21.8%	1,683	23.5%	1,786	23.6%	1,804	22.9%	2,190	28.0%	8,887	24.0%
Total	6,544	100.0%	7,149	100.0%	7,576	100.0%	7,884	100.0%	7,819	100.0%	36,972	100.0%

Time of Day	Figures 37-42. All incidents for 2014-2018, shown by year, month, quarter, day of week and time of day, count and percentages. 2017 had the highest incident count. December had the highest count for a month. The 4th Quarter had the highest incident count. Friday was the highest incident count. Afternoon was the highest incident count.
Morning 4AM-10AM	
Afternoon 10AM-4PM	
Evening 4PM-10PM	
Night 10PM-4AM	

Time	2014		2015		2016		2017		2018		Grand Total	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
12 AM	198	3.0%	203	2.8%	243	3.2%	250	3.2%	215	2.7%	1,109	3.0%
1 AM	214	3.3%	197	2.8%	176	2.3%	208	2.6%	193	2.5%	988	2.7%
2 AM	155	2.4%	174	2.4%	176	2.3%	168	2.1%	165	2.1%	838	2.3%
3 AM	155	2.4%	162	2.3%	163	2.2%	170	2.2%	163	2.1%	813	2.2%
4 AM	130	2.0%	140	2.0%	129	1.7%	142	1.8%	163	2.1%	704	1.9%
5 AM	131	2.0%	142	2.0%	152	2.0%	142	1.8%	151	1.9%	718	1.9%
6 AM	138	2.1%	181	2.5%	169	2.2%	196	2.5%	194	2.5%	878	2.4%
7 AM	189	2.9%	220	3.1%	243	3.2%	289	3.7%	240	3.1%	1,181	3.2%
8 AM	236	3.6%	308	4.3%	285	3.8%	301	3.8%	337	4.3%	1,467	4.0%
9 AM	317	4.8%	296	4.1%	353	4.7%	320	4.1%	356	4.6%	1,642	4.4%
10 AM	314	4.8%	365	5.1%	369	4.9%	417	5.3%	409	5.2%	1,874	5.1%
11 AM	353	5.4%	384	5.4%	407	5.4%	453	5.7%	431	5.5%	2,028	5.5%
12 PM	367	5.6%	393	5.5%	422	5.6%	453	5.7%	464	5.9%	2,099	5.7%
1 PM	370	5.7%	399	5.6%	469	6.2%	479	6.1%	473	6.0%	2,190	5.9%
2 PM	403	6.2%	415	5.8%	417	5.5%	486	6.2%	474	6.1%	2,195	5.9%
3 PM	414	6.3%	419	5.9%	491	6.5%	472	6.0%	440	5.6%	2,236	6.0%
4 PM	367	5.6%	433	6.1%	439	5.8%	449	5.7%	440	5.6%	2,128	5.8%
5 PM	351	5.4%	430	6.0%	404	5.3%	431	5.5%	410	5.2%	2,026	5.5%
6 PM	346	5.3%	374	5.2%	415	5.5%	427	5.4%	457	5.8%	2,019	5.5%
7 PM	360	5.5%	368	5.1%	400	5.3%	409	5.2%	393	5.0%	1,930	5.2%
8 PM	337	5.1%	334	4.7%	355	4.7%	372	4.7%	387	4.9%	1,785	4.8%
9 PM	245	3.7%	319	4.5%	344	4.5%	315	4.0%	328	4.2%	1,551	4.2%
10 PM	223	3.4%	280	3.9%	306	4.0%	291	3.7%	313	4.0%	1,413	3.8%
11 PM	231	3.5%	213	3.0%	249	3.3%	244	3.1%	223	2.9%	1,160	3.1%
Total	6,544	100.0%	7,149	100.0%	7,576	100.0%	7,884	100.0%	7,819	100.0%	36,972	100.0%

Figure 43. Incident distribution, by hour, for CJCFPD, 2014-2018. 3 PM is the overall peak incident time. 4 AM is the lowest.

Density of All Emergency Incidents 2014-2018

- Fire Stations
- Roads
- Highways
- Water
- Fire District

0   1   2
Miles

Figure 44. Density distribution of all emergency incidents, 2014-2018. The hot spots show the concentration of all emergency incidents in the district.

All Incidents in 2018 by Census Block

- ● Fire Stations
- ─── Highways
- ▭ Fire District
- ■ 24 and below (purple)
- ■ 25 to 49 (blue)
- ■ 50 to 149 (green)
- ■ 150 to 299 (yellow)
- ■ 300 and above (red)
- ■ No incidents (gray)

0   .75   1.5
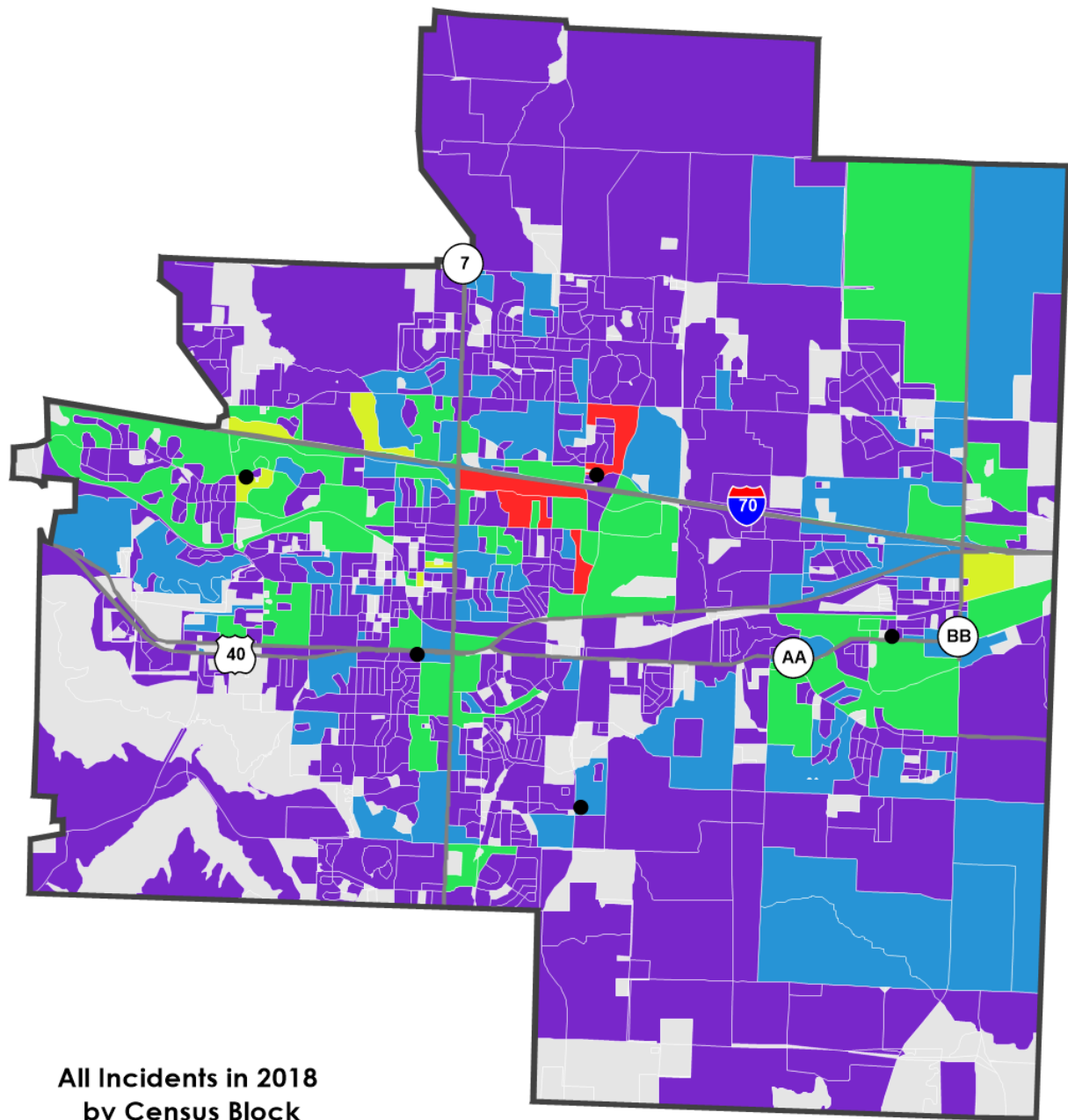
Figure 45. Density of all incidents in 2018 by Census Block in the CJCFPD.

Fire Incidents in 2018 by Census Block

- ● Fire Stations
- —— Highways
- ☐ Fire District
- 🟥 1
- 🟩 2
- 🟦 3
- 🟪 4 and above
- ⬜ No incidents

0   .75   1.5

Miles
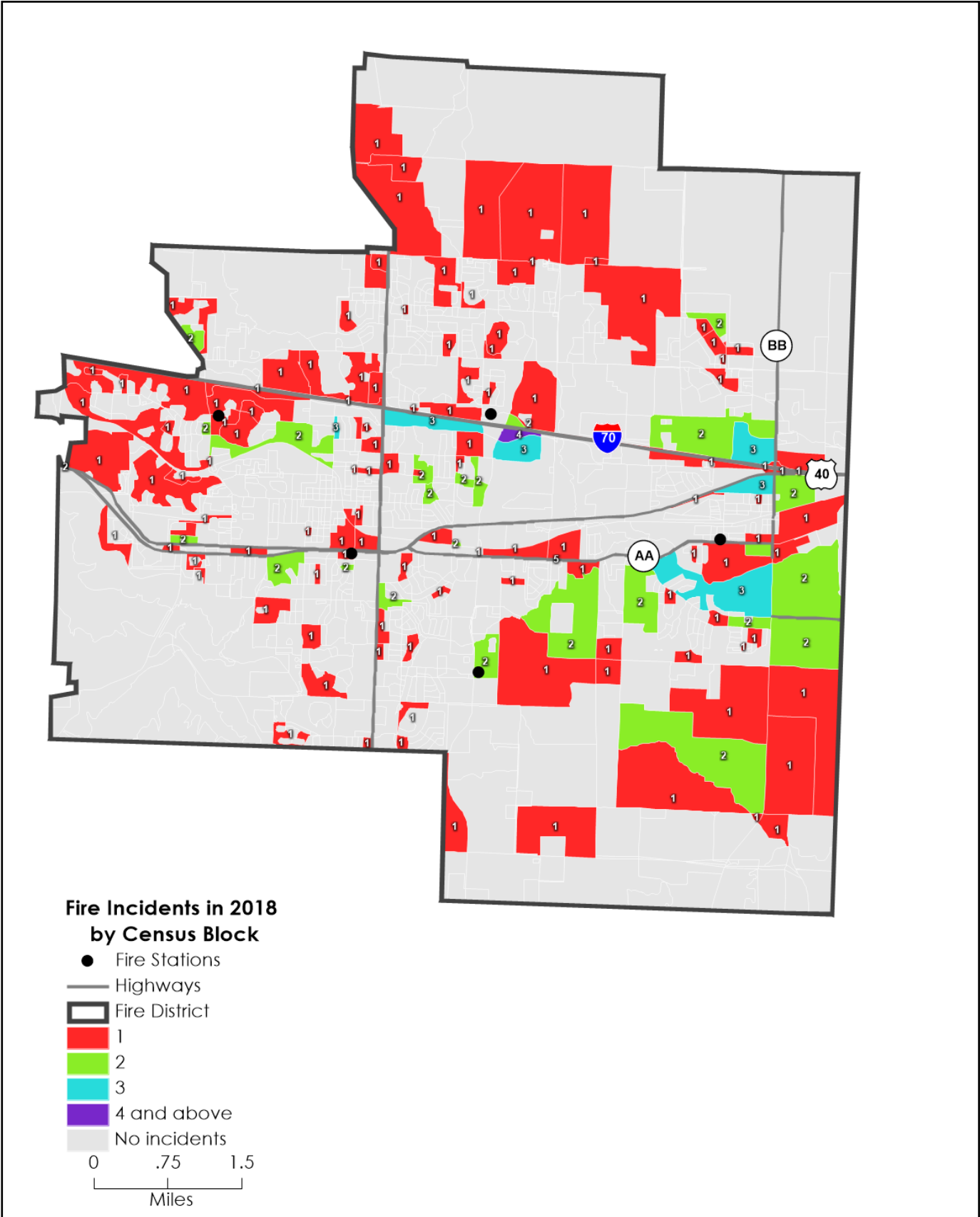
Figure 46. Density of all fire incidents in 2018 by Census Block in the CJCFPD.

Fire Incidents from 2014 to 2018 by Census Block

- ● Fire Stations
- Highways
- ▢ Fire District
- 4 and below
- 5 to 9
- 10 to 14
- 15 to 29
- 30 and above
- No incidents

0   1   2
Miles
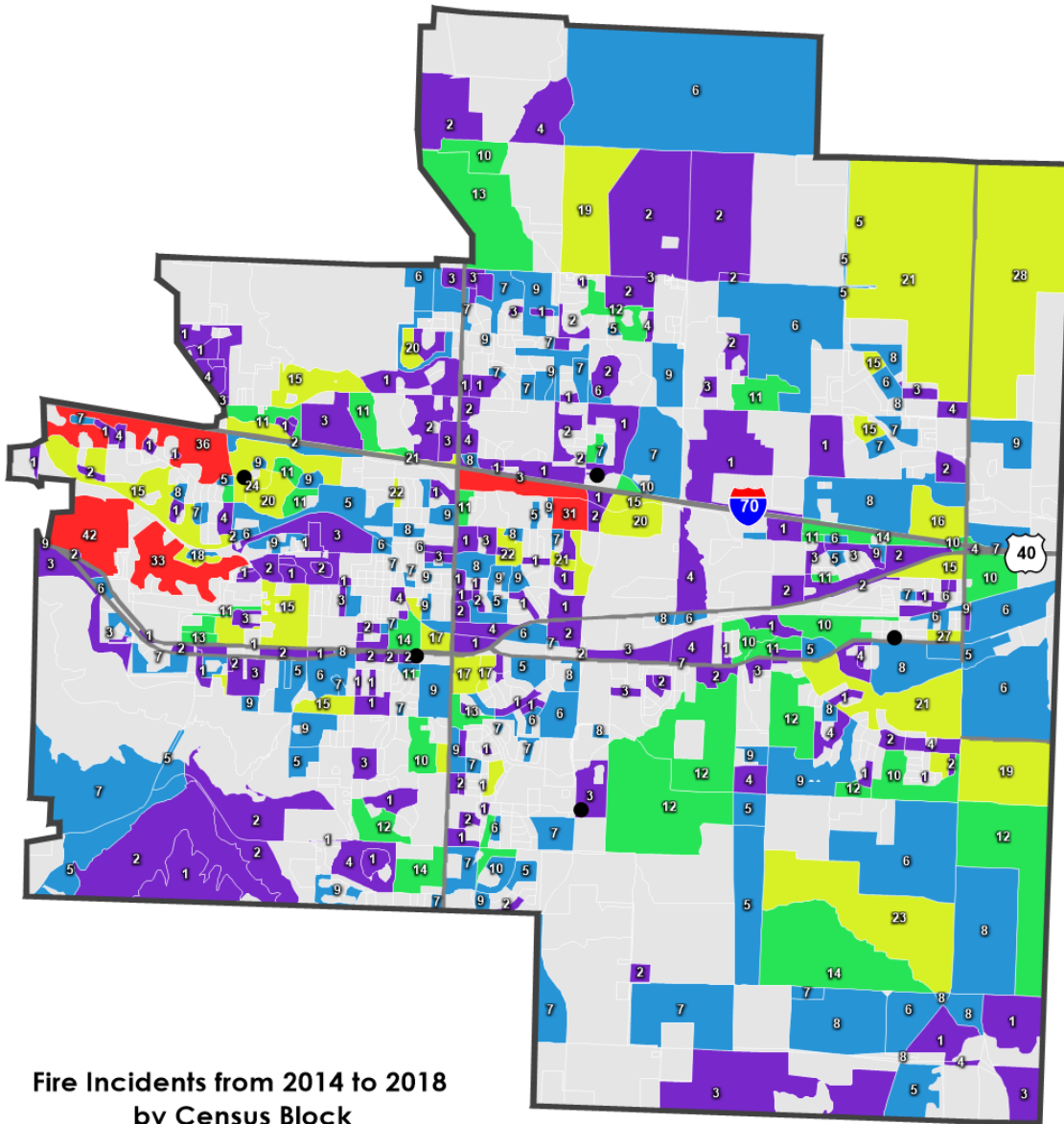
Figure 47. Density of all fire incidents 2014-2018 by Census Block in the CJCFPD.

Central Jackson County Fire Protection District

Medical Incidents:

Year	2014	2015	2016	2017	2018	Grand Total
	4,773	5,205	5,622	5,870	5,790	27,260

Month	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Jan	401	8.4%	456	8.8%	434	7.7%	542	9.2%	455	7.9%	2,288	8.4%
Feb	366	7.7%	389	7.5%	429	7.6%	470	8.0%	449	7.8%	2,103	7.7%
Mar	391	8.2%	412	7.9%	467	8.3%	454	7.7%	483	8.3%	2,207	8.1%
Apr	417	8.7%	456	8.8%	504	9.0%	475	8.1%	481	8.3%	2,333	8.6%
May	411	8.6%	434	8.3%	443	7.9%	509	8.7%	504	8.7%	2,301	8.4%
Jun	370	7.8%	399	7.7%	455	8.1%	449	7.6%	457	7.9%	2,130	7.8%
Jul	399	8.4%	429	8.2%	511	9.1%	510	8.7%	461	8.0%	2,310	8.5%
Aug	410	8.6%	412	7.9%	500	8.9%	536	9.1%	529	9.1%	2,387	8.8%
Sep	404	8.5%	448	8.6%	442	7.9%	485	8.3%	507	8.8%	2,286	8.4%
Oct	386	8.1%	476	9.1%	503	8.9%	498	8.5%	466	8.0%	2,329	8.5%
Nov	373	7.8%	450	8.6%	441	7.8%	485	8.3%	471	8.1%	2,220	8.1%
Dec	445	9.3%	444	8.5%	493	8.8%	457	7.8%	527	9.1%	2,366	8.7%
Total	4,773	100.0%	5,205	100.0%	5,622	100.0%	5,870	100.0%	5,790	100.0%	27,260	100.0%

Quarter	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1st	1,158	24.3%	1,257	24.1%	1,330	25.6%	1,466	25.0%	1,387	24.0%	6,598	24.2%
2nd	1,198	25.1%	1,289	24.8%	1,402	26.9%	1,433	24.4%	1,442	24.9%	6,764	24.8%
3rd	1,213	25.4%	1,289	24.8%	1,453	27.9%	1,531	26.1%	1,497	25.9%	6,983	25.6%
4th	1,204	25.2%	1,370	26.3%	1,437	27.6%	1,440	24.5%	1,464	25.3%	6,915	25.4%
Total	4,773	100.0%	5,205	100.0%	5,622	100.0%	5,870	100.0%	5,790	100.0%	27,260	100.0%

Day of Week	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Sunday	630	13.2%	674	12.9%	755	13.4%	788	13.4%	738	12.7%	3,585	13.2%
Monday	702	14.7%	798	15.3%	786	14.0%	841	14.3%	847	14.6%	3,974	14.6%
Tuesday	683	14.3%	745	14.3%	836	14.9%	854	14.5%	855	14.8%	3,973	14.6%
Wednesday	703	14.7%	688	13.2%	818	14.5%	860	14.7%	836	14.4%	3,905	14.3%
Thursday	609	12.8%	815	15.7%	837	14.9%	824	14.0%	831	14.4%	3,916	14.4%
Friday	754	15.8%	789	15.2%	820	14.6%	891	15.2%	849	14.7%	4,103	15.1%
Saturday	692	14.5%	696	13.4%	770	13.7%	812	13.8%	834	14.4%	3,804	14.0%
Total	4,773	100.0%	5,205	100.0%	5,622	100.0%	5,870	100.0%	5,790	100.0%	27,260	100.0%

Time of Day	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Morning	807	16.9%	911	17.5%	990	17.6%	1,046	17.8%	1,096	18.9%	4,850	17.8%
Afternoon	1,612	33.8%	1,706	32.8%	1,899	33.8%	2,081	35.5%	2,003	34.6%	9,301	34.1%
Evening	1,433	30.0%	1,642	31.5%	1,730	30.8%	1,732	29.5%	1,739	30.0%	8,276	30.4%
Night	921	19.3%	946	18.2%	1,003	17.8%	1,011	17.2%	952	16.4%	4,833	17.7%
Total	4,773	100.0%	5,205	100.0%	5,622	100.0%	5,870	100.0%	5,790	100.0%	27,260	100.0%

Time of Day
Morning 4AM-10AM
Afternoon 10AM-4PM
Evening 4PM-10PM
Night 10PM-4AM

Figures 48-53. All medical incidents for 2014-2018, shown by year, month, quarter, day of week and time of day, count and percentages. 2017 had the highest incident count. August had the highest count for a month. The 3rd Quarter had the highest incident count. Friday was the highest incident count. Afternoon was the highest incident count. (The highest level in the category is yellow highlight and red is the lowest.)

Time	2014		2015		2016		2017		2018		Grand Total	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
12 AM	153	3.2%	155	3.0%	196	3.5%	196	3.3%	161	2.8%	861	3.2%
1 AM	161	3.4%	159	3.1%	131	2.3%	148	2.5%	139	2.4%	738	2.7%
2 AM	126	2.6%	142	2.7%	133	2.4%	125	2.1%	134	2.3%	660	2.4%
3 AM	126	2.6%	126	2.4%	130	2.3%	135	2.3%	126	2.2%	643	2.4%
4 AM	92	1.9%	102	2.0%	89	1.6%	121	2.1%	129	2.2%	533	2.0%
5 AM	96	2.0%	99	1.9%	120	2.1%	109	1.9%	106	1.8%	530	1.9%
6 AM	89	1.9%	122	2.3%	133	2.4%	149	2.5%	156	2.7%	649	2.4%
7 AM	135	2.8%	161	3.1%	182	3.2%	214	3.6%	192	3.3%	884	3.2%
8 AM	175	3.7%	225	4.3%	203	3.6%	226	3.9%	233	4.0%	1,062	3.9%
9 AM	220	4.6%	202	3.9%	263	4.7%	227	3.9%	280	4.8%	1,192	4.4%
10 AM	230	4.8%	249	4.8%	277	4.9%	308	5.2%	300	5.2%	1,364	5.0%
11 AM	250	5.2%	279	5.4%	310	5.5%	352	6.0%	336	5.8%	1,527	5.6%
12 PM	267	5.6%	291	5.6%	299	5.3%	340	5.8%	347	6.0%	1,544	5.7%
1 PM	270	5.7%	300	5.8%	348	6.2%	356	6.1%	346	6.0%	1,620	5.9%
2 PM	301	6.3%	300	5.8%	307	5.5%	372	6.3%	348	6.0%	1,628	6.0%
3 PM	294	6.2%	287	5.5%	358	6.4%	353	6.0%	326	5.6%	1,618	5.9%
4 PM	263	5.5%	299	5.7%	314	5.6%	323	5.5%	319	5.5%	1,518	5.6%
5 PM	255	5.3%	308	5.9%	300	5.3%	318	5.4%	294	5.1%	1,475	5.4%
6 PM	241	5.0%	272	5.2%	307	5.5%	305	5.2%	323	5.6%	1,448	5.3%
7 PM	253	5.3%	276	5.3%	294	5.2%	294	5.0%	283	4.9%	1,400	5.1%
8 PM	242	5.1%	254	4.9%	260	4.6%	267	4.5%	277	4.8%	1,300	4.8%
9 PM	179	3.8%	233	4.5%	255	4.5%	225	3.8%	243	4.2%	1,135	4.2%
10 PM	179	3.8%	204	3.9%	230	4.1%	215	3.7%	228	3.9%	1,056	3.9%
11 PM	176	3.7%	160	3.1%	183	3.3%	192	3.3%	164	2.8%	875	3.2%
Grand Total	4,773	100.0%	5,205	100.0%	5,622	100.0%	5,870	100.0%	5,790	100.0%	27,260	100.0%

Figure 54. Incident distribution, by hour, for CJCFPD, 2014-2018. 2 PM is the overall peak incident time. 5 AM is the lowest.
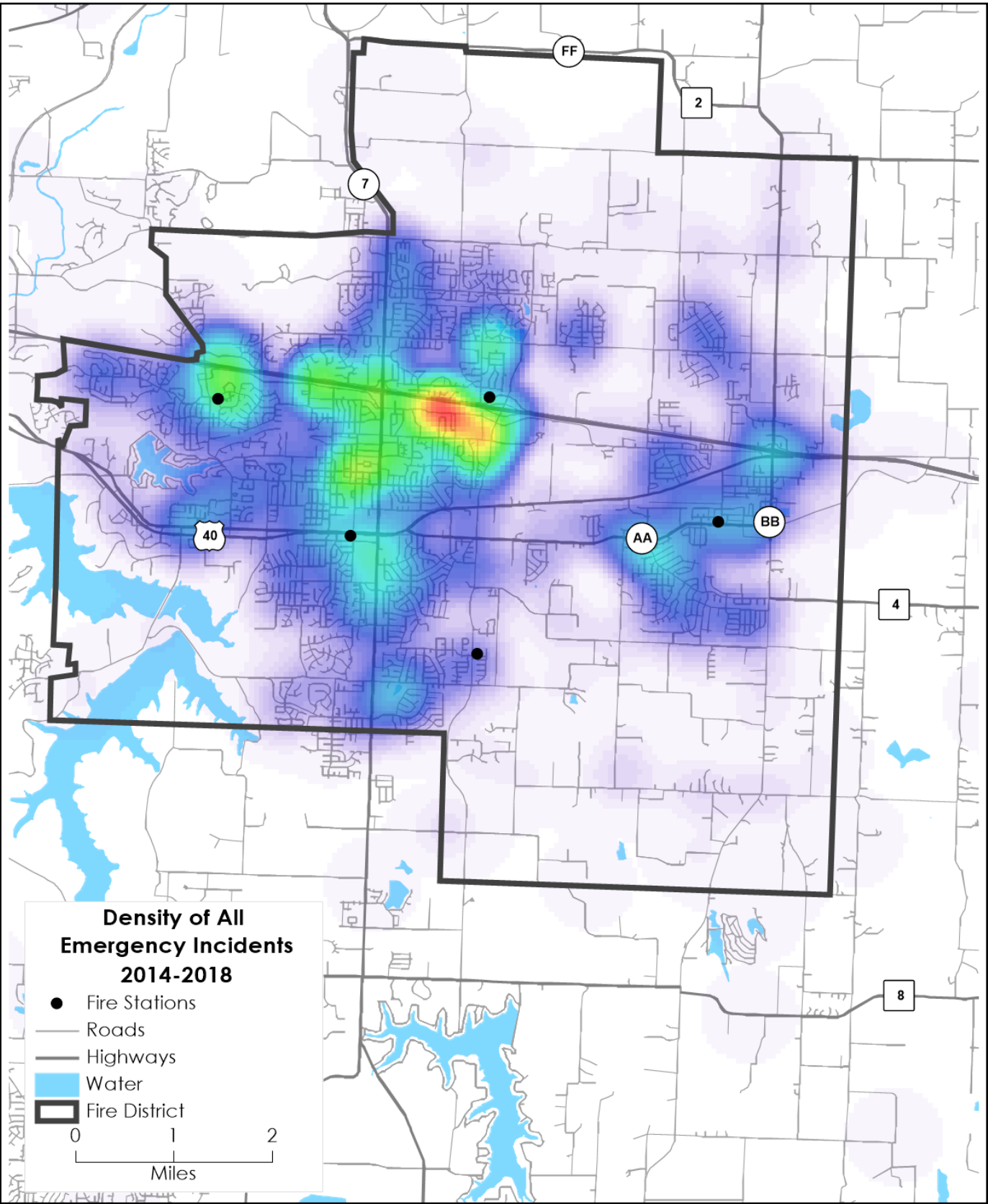
Central Jackson County Fire Protection District

Incident Category	Incident Number	Incident Description	2014	2015	2016	2017	2018	Grand Total	Percent of Incident Category	Percent of Overall Incidents
		Detailed Incident Distribution for Central Jackson County Fire Protection District								
		January 2014-December 2018								
Medical Incidents	300	Rescue, emergency medical call (EMS) call, other	82	102	48	99	40	371	1.4%	1.0%
	311	Medical / MANPOWER assist, assist EMS crew	16	21	10	35	41	123	0.5%	0.3%
	320	EMS incident other	233	174	93	60	46	606	2.2%	1.6%
	321	EMS call, excluding vehicle accident with injury. Includes calls when patient refuses treatment.	4,112	4,568	5,128	5,346	5,302	24,456	89.5%	66.1%
	322	Vehicle accident with injuries	179	180	184	208	200	951	3.5%	2.6%
	323	Motor vehicle/pedestrian accident (MV Ped)	4	16	14	7	23	64	0.2%	0.2%
	324	Motor vehicle accident with no injuries	147	144	145	115	138	689	2.5%	1.9%
	331	Lock-in. Includes opening locked vehicles	1	2	2	1	2	8	0.0%	0.0%
	340	Search for lost person					1	1	0.0%	0.0%
	350	Extrication, rescue, other		1			2	3	0.0%	0.0%
	353	Removal of victim from stalled elevator	5	4	2	6	1	18	0.1%	0.0%
	354	Trench/below grade rescue					2	2	0.0%	0.0%
	381	Rescue or EMS standby for hazardous conditions	1	3	4	6	7	21	0.1%	0.1%
		Medical Incidents Total	4,780	5,215	5,630	5,883	5,805	27,313	100.0%	73.9%

Figures 55-56. NFIRS Code 321 accounts for 89.5 percent of the medical incidents. 2014-2018, and 66.1 percent of all incidents.

Top 10 Medical Incident Locations

St. Mary's Hospital	3,599
St. Marys Village	1,105
Shangri La	838
Blue Springs Police Department	397
The Parkway Senior Living	396
American Inn	377
Benton House	319
Waterford Ladies Home	199
1132 NE 10TH ST	189
Welcome Inn	187
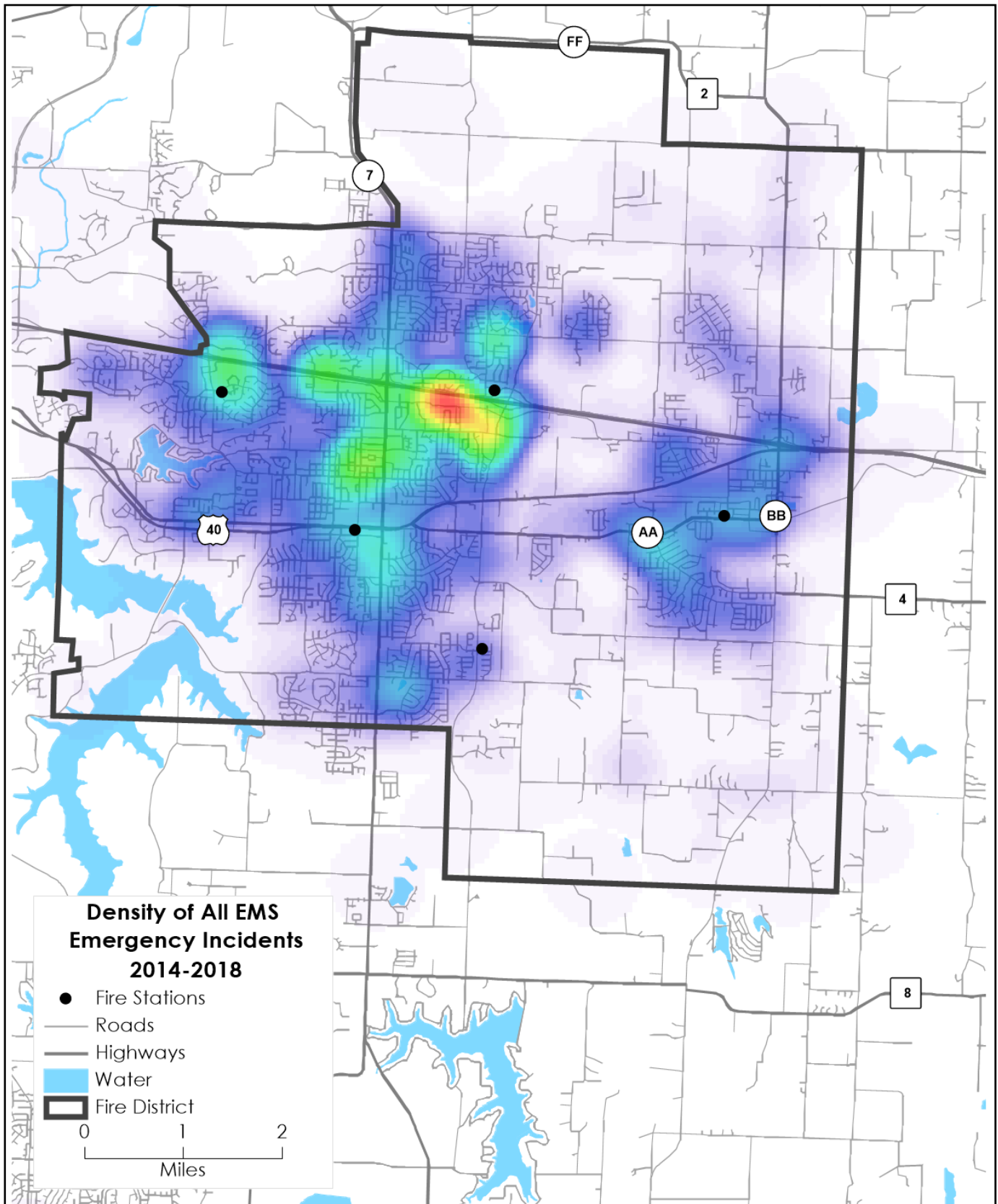
Figure 57. Density distribution of all EMS incidents, 2014-2018. The hot spots show the concentration of all emergency incidents in the district. (Response code="Emergency" for this map's data.)

Medical Incidents in 2018 by Census Block
- ● Fire Stations
- — Roads
- — Highways
- Water
- Fire District

Number of Incidents
- 9 and below
- 10 to 49
- 50 to 99
- 100 to 199
- 200 and above
- No incidents

0   1   2
Miles
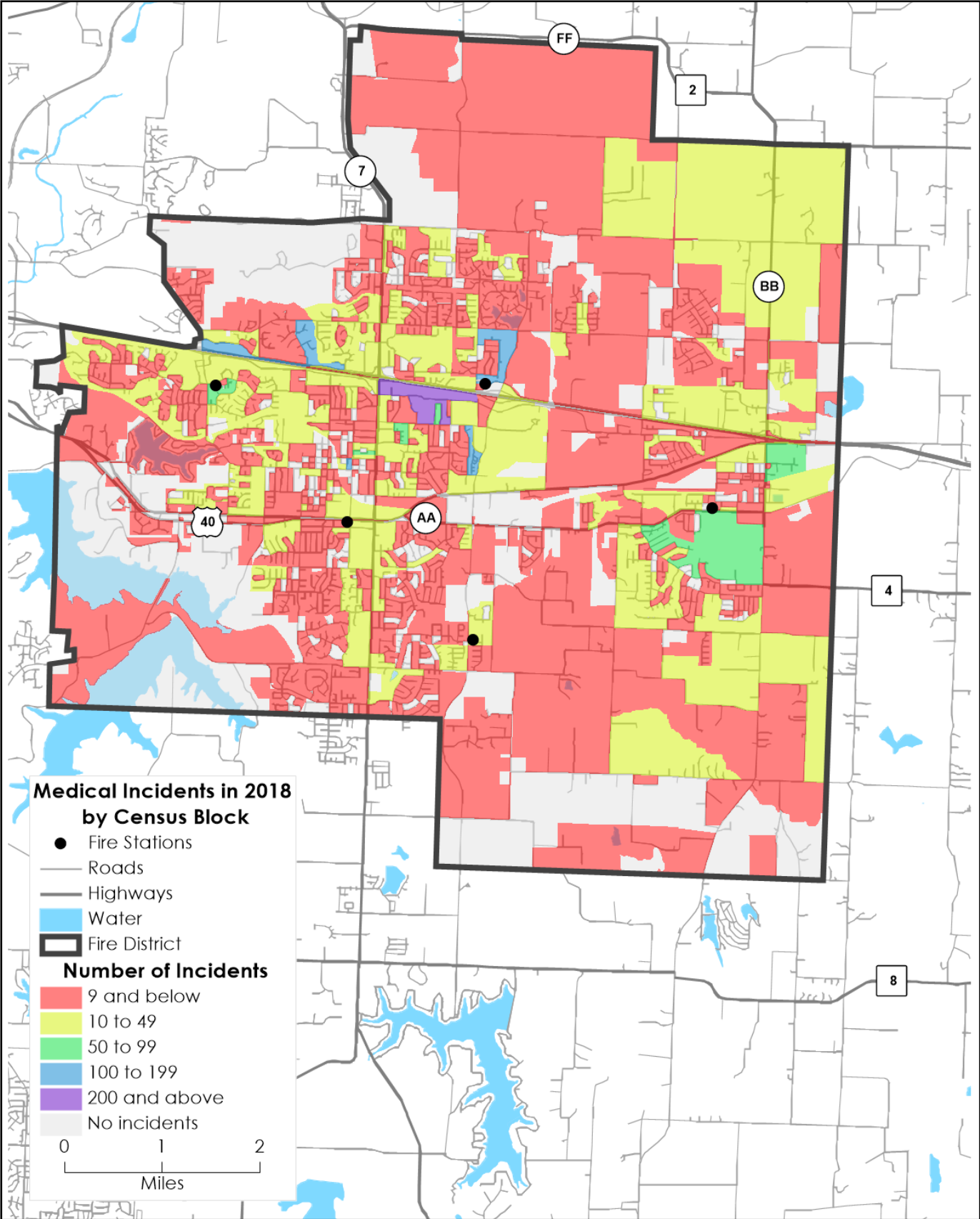
Figure 58. Count by Census block of all medical incidents in the CJCFPD.
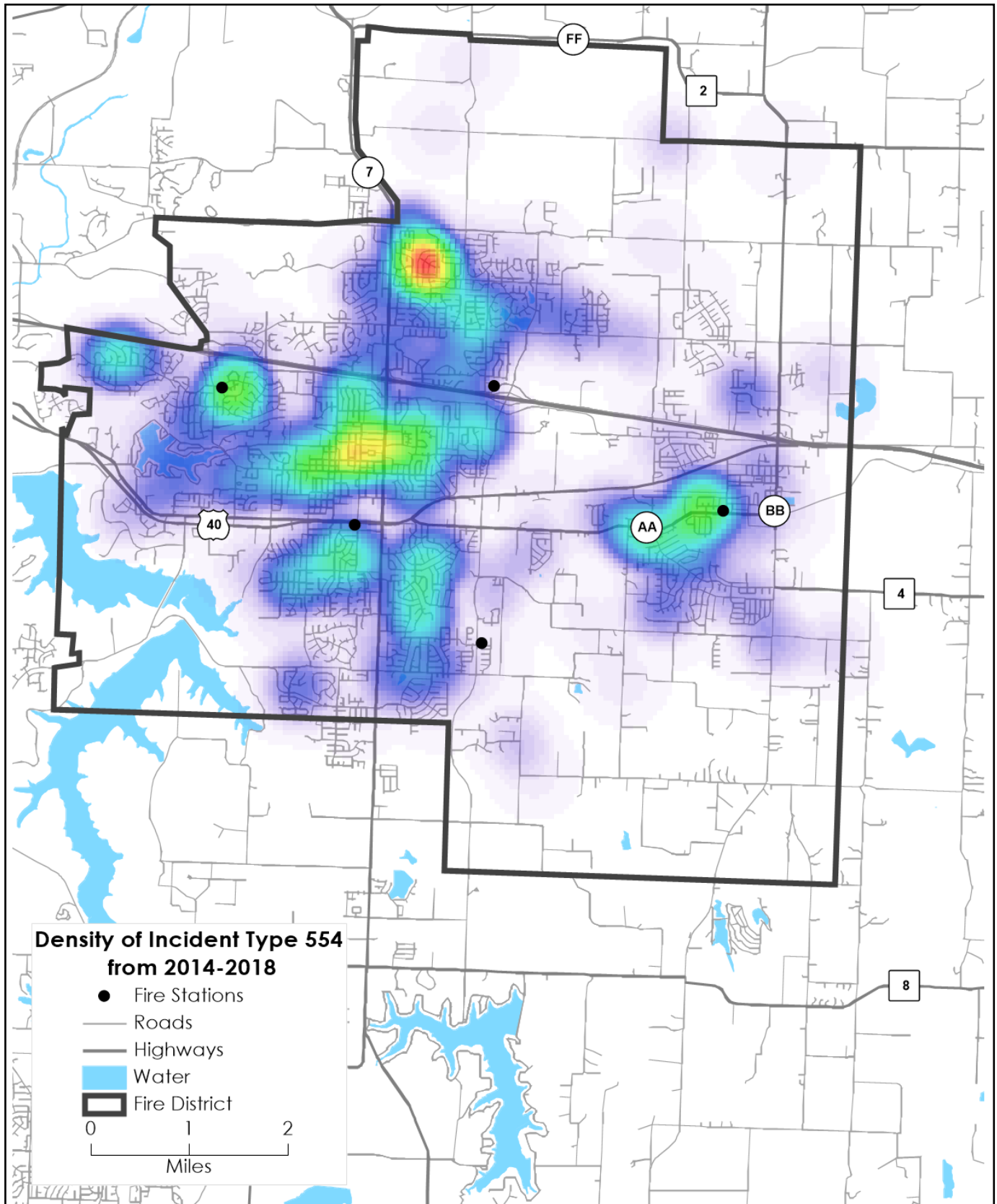
Figure 59. Density of lift assist from 2014-2018.

Page 57

PAGE DELIBERATELY LEFT BLANK

Response and Drive Time Detailed Analysis in the CJCFPD

We conducted a drive time analysis to determine where in the district can be reached from the station in four minutes or less, a common national standard in fire departments. A GIS software application was used to model all roads that can be driven in the given time period, based on speed limits. Time ranges from zero to 10 minutes were indicated across the district, as shown in Figure 60.

Page 60
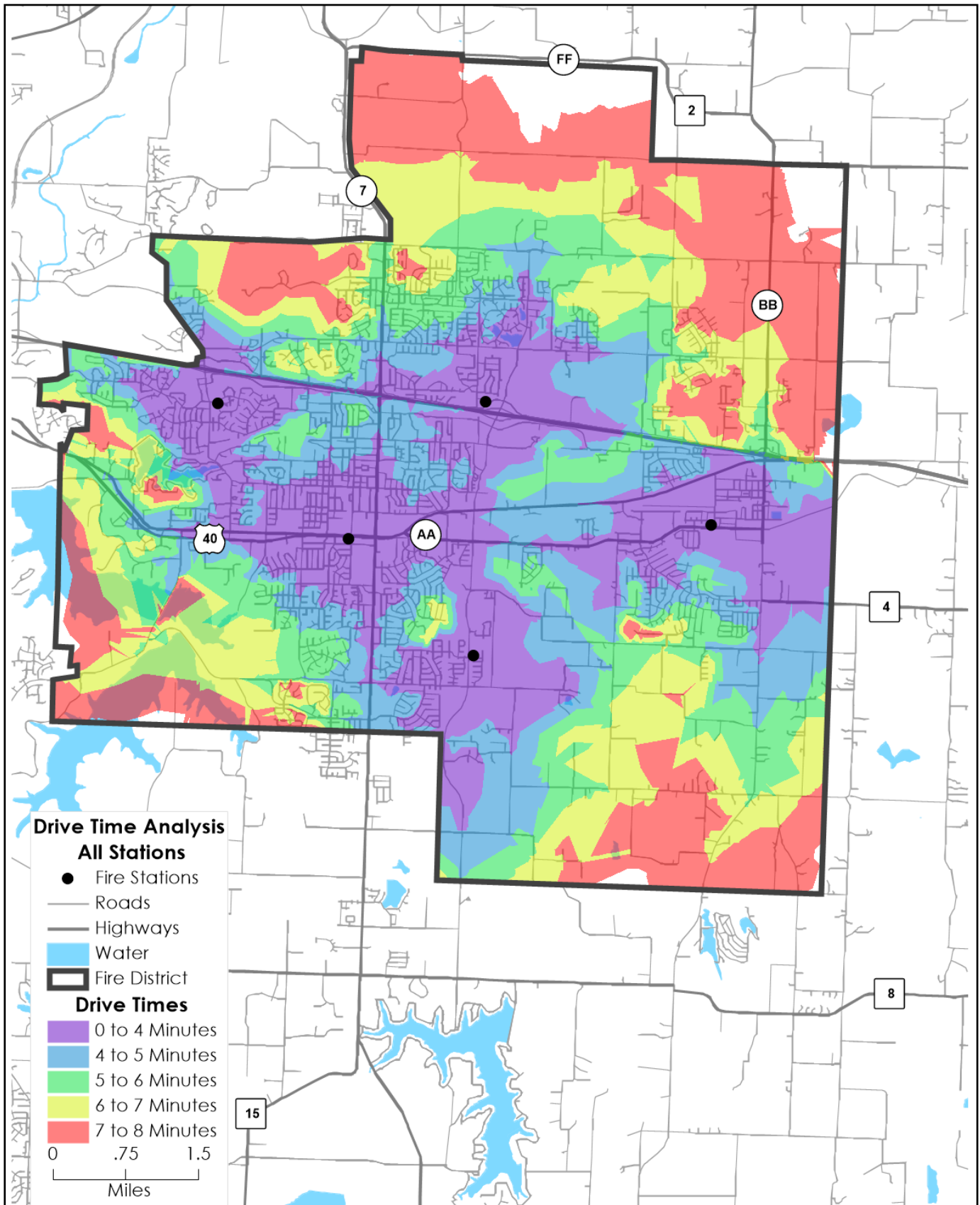
Figure 60. Current drive time analysis for CJCFPD based on all stations.

Central Jackson County Fire Protection District
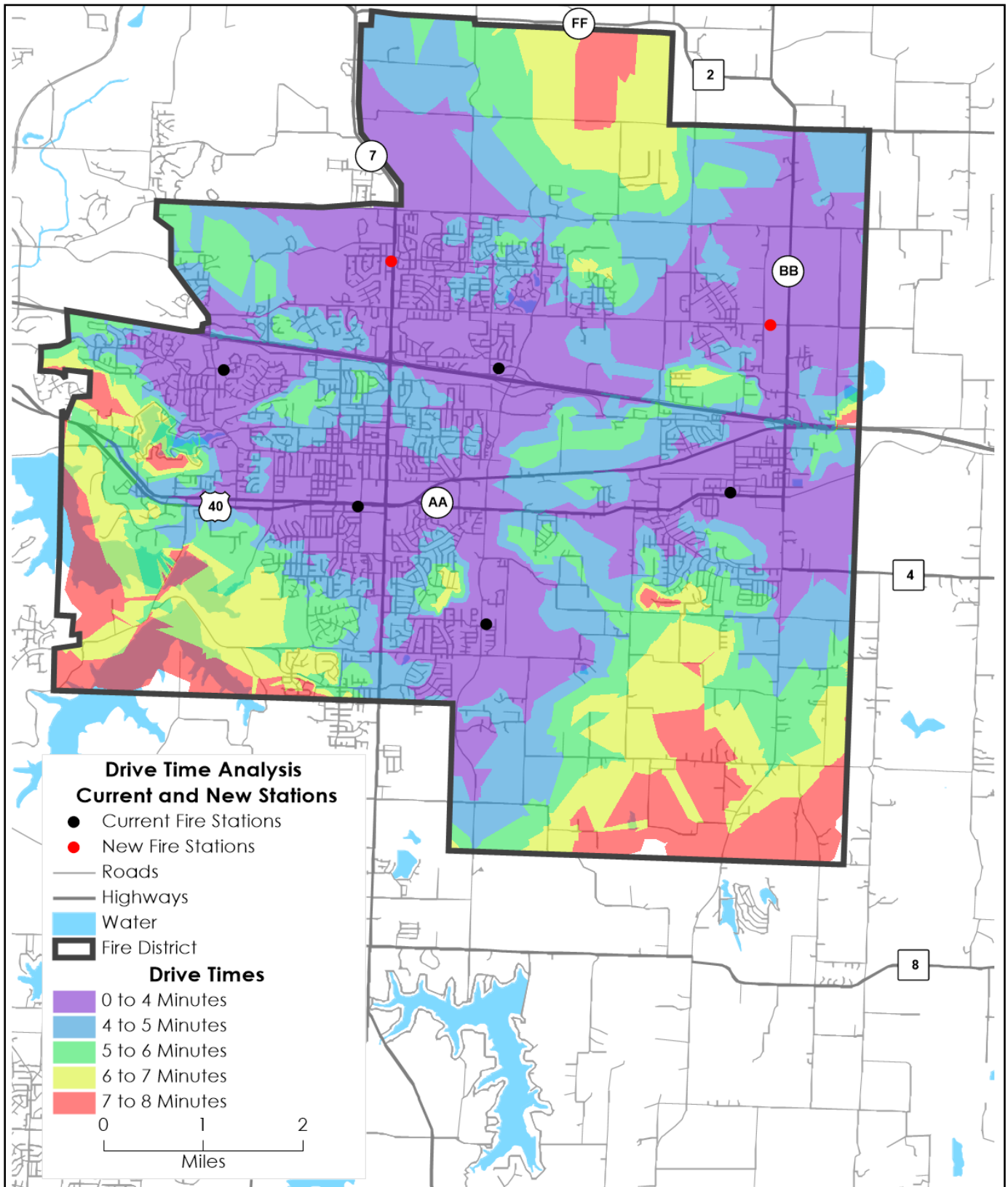
Figure 61. Current drive time analysis for CJCFPD based on current stations and possible new stations. A service gap analysis was performed (see p. 74-79) and determined that two new stations could improve service areas in the district.
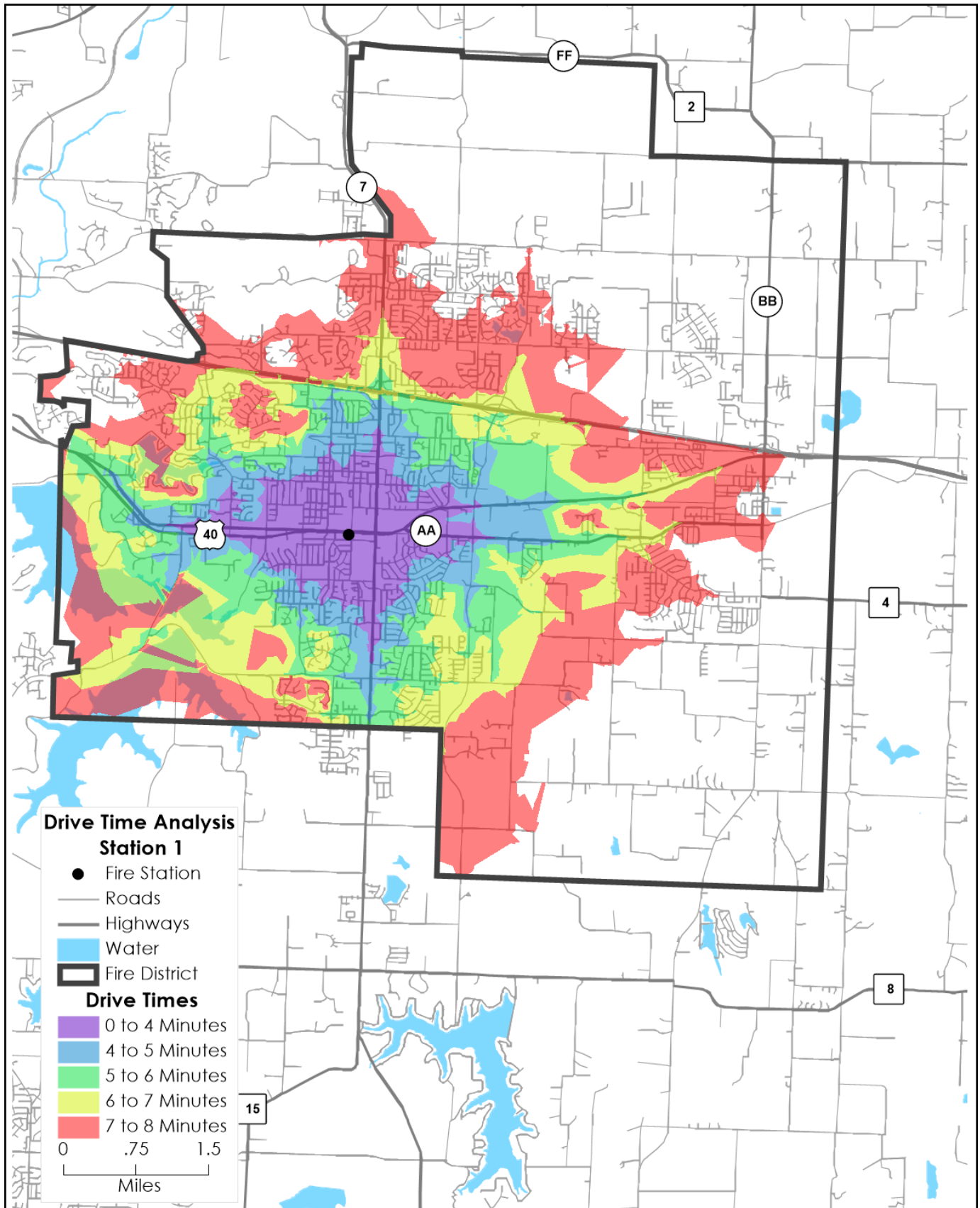
Figure 62. Current drive time analysis for CJCFPD Station 1.

Drive Time Analysis
Station 2
● Fire Station
— Roads
— Highways
Water
Fire District
Drive Times
0 to 4 Minutes
4 to 5 Minutes
5 to 6 Minutes
6 to 7 Minutes
7 to 8 Minutes

0   .75   1.5
Miles
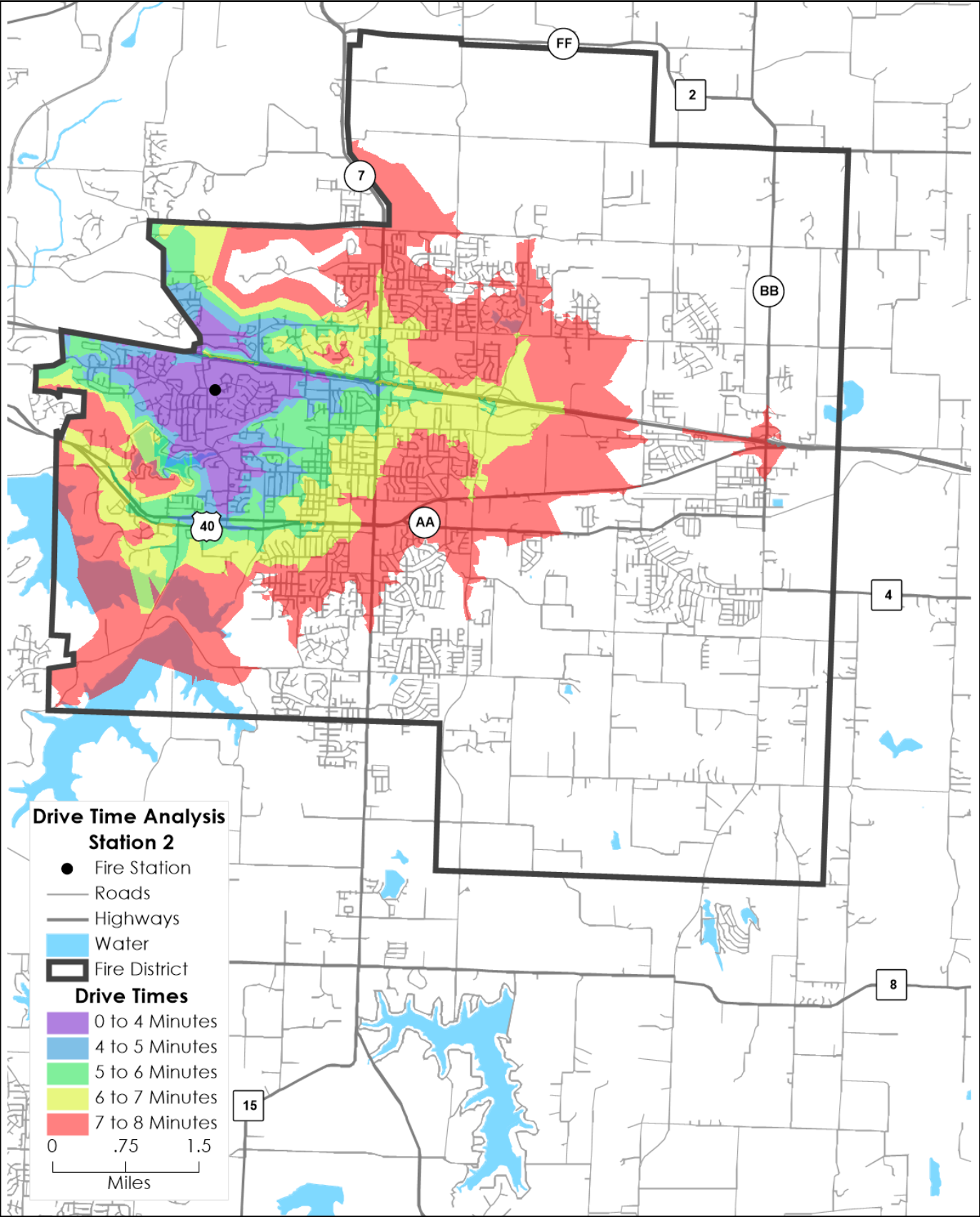
Figure 63. Current drive time analysis for CJCFPD Station 2.
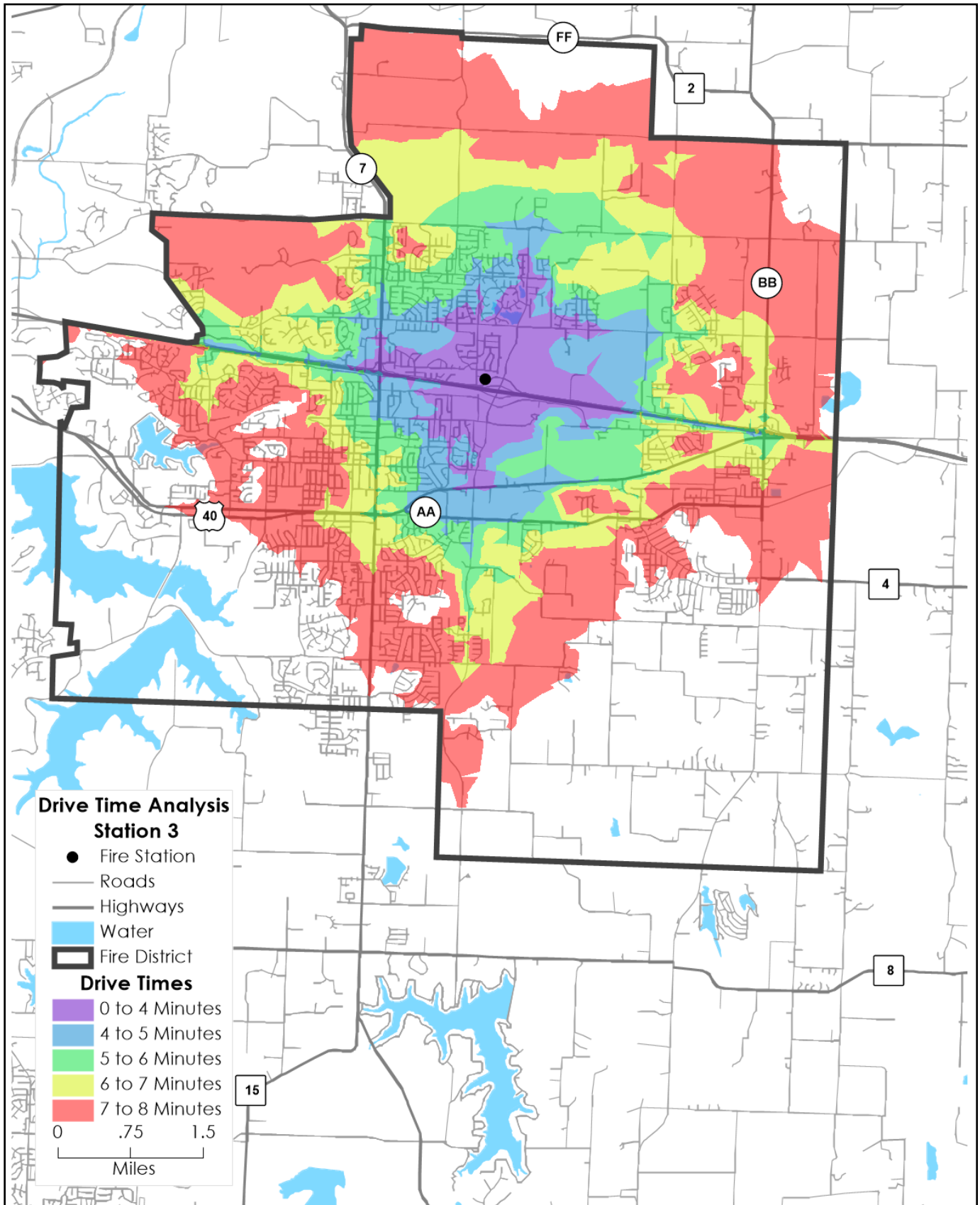
Figure 64. Current drive time analysis for CJCFPD Station 3.

Drive Time Analysis Station 4
- Fire Station
- Roads
- Highways
- Water
- Fire District

Drive Times
- 0 to 4 Minutes
- 4 to 5 Minutes
- 5 to 6 Minutes
- 6 to 7 Minutes
- 7 to 8 Minutes

0   .75   1.5
Miles
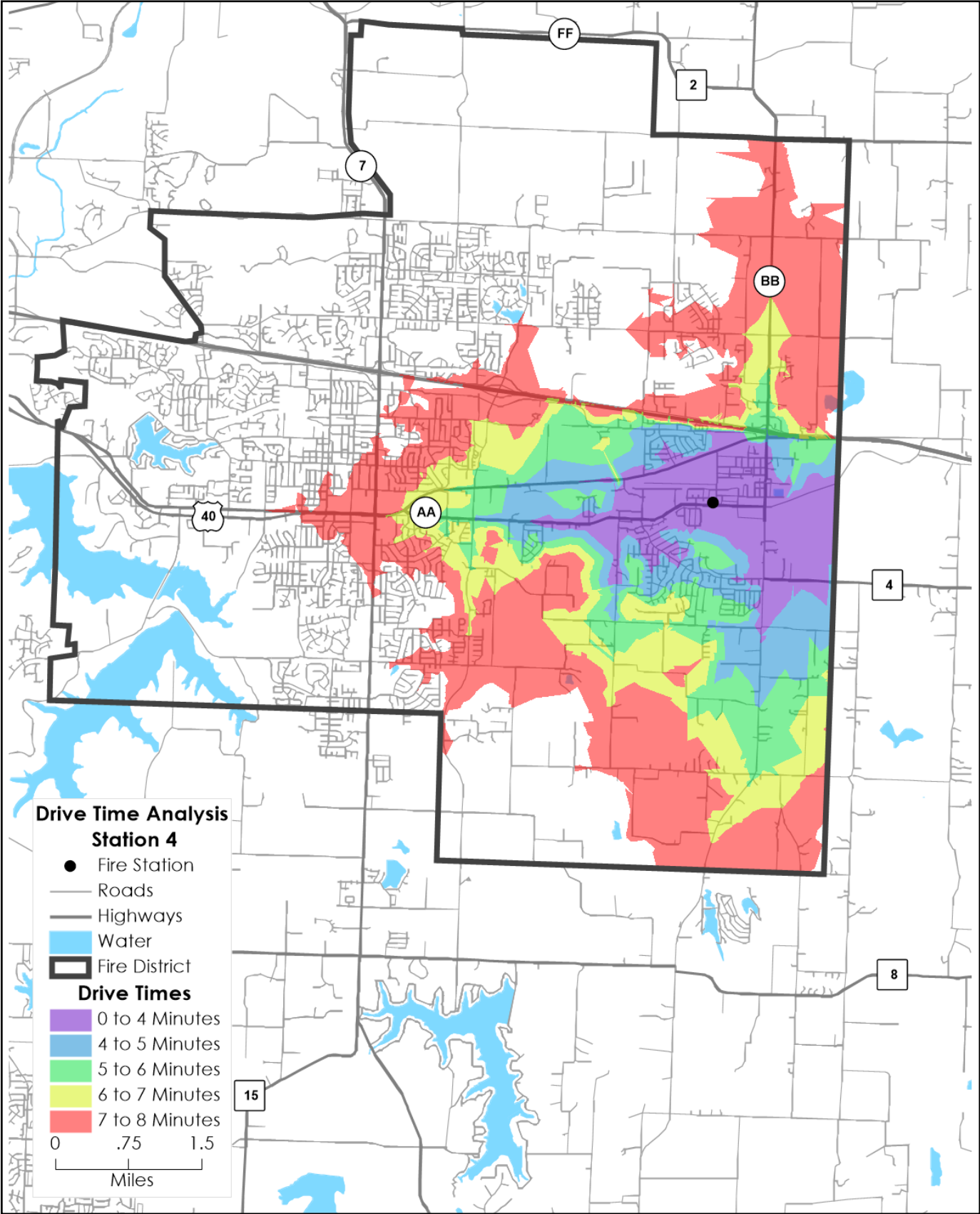
Figure 65. Current drive time analysis for CJCFPD Station 4.
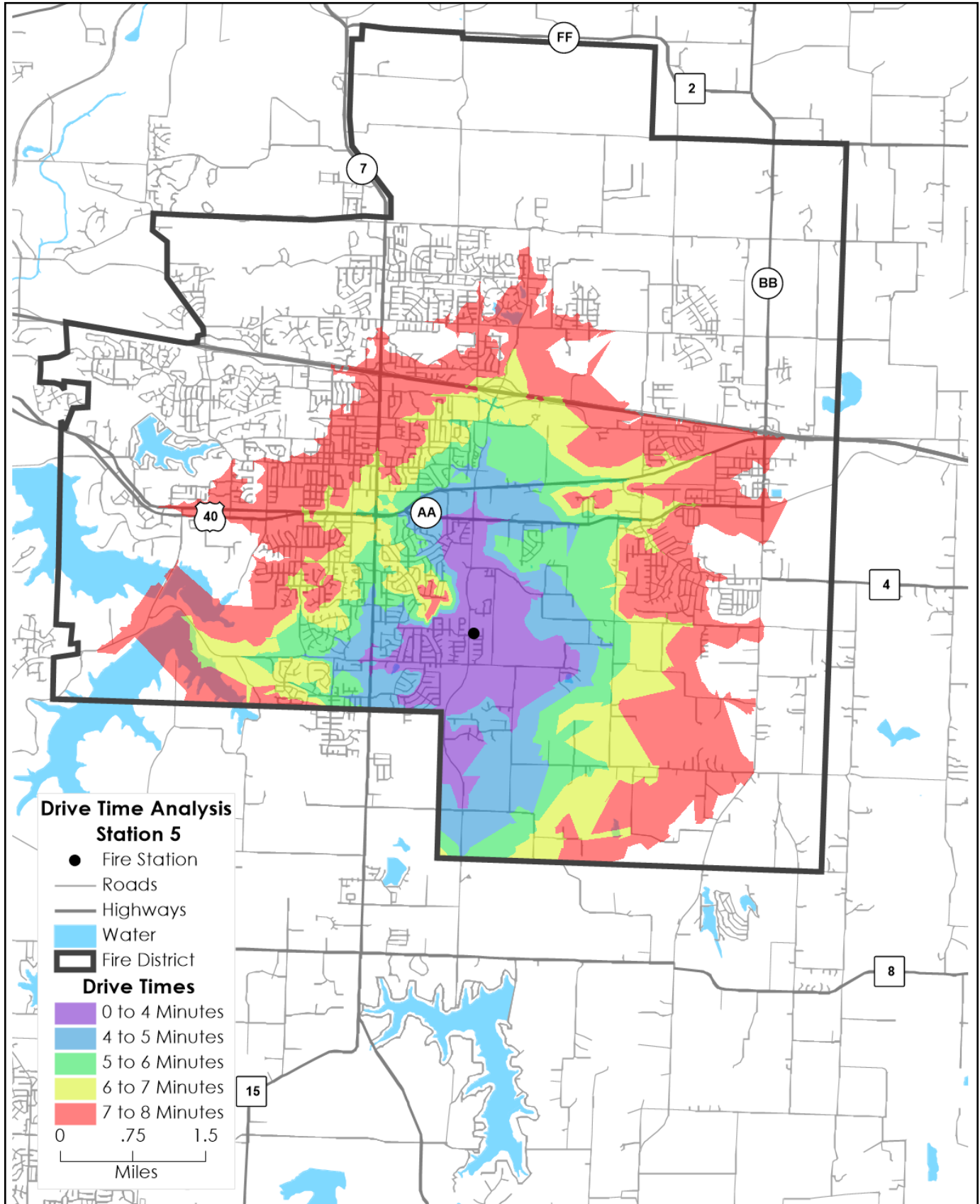
Figure 66. Current drive time analysis for CJCFPD Station 5.
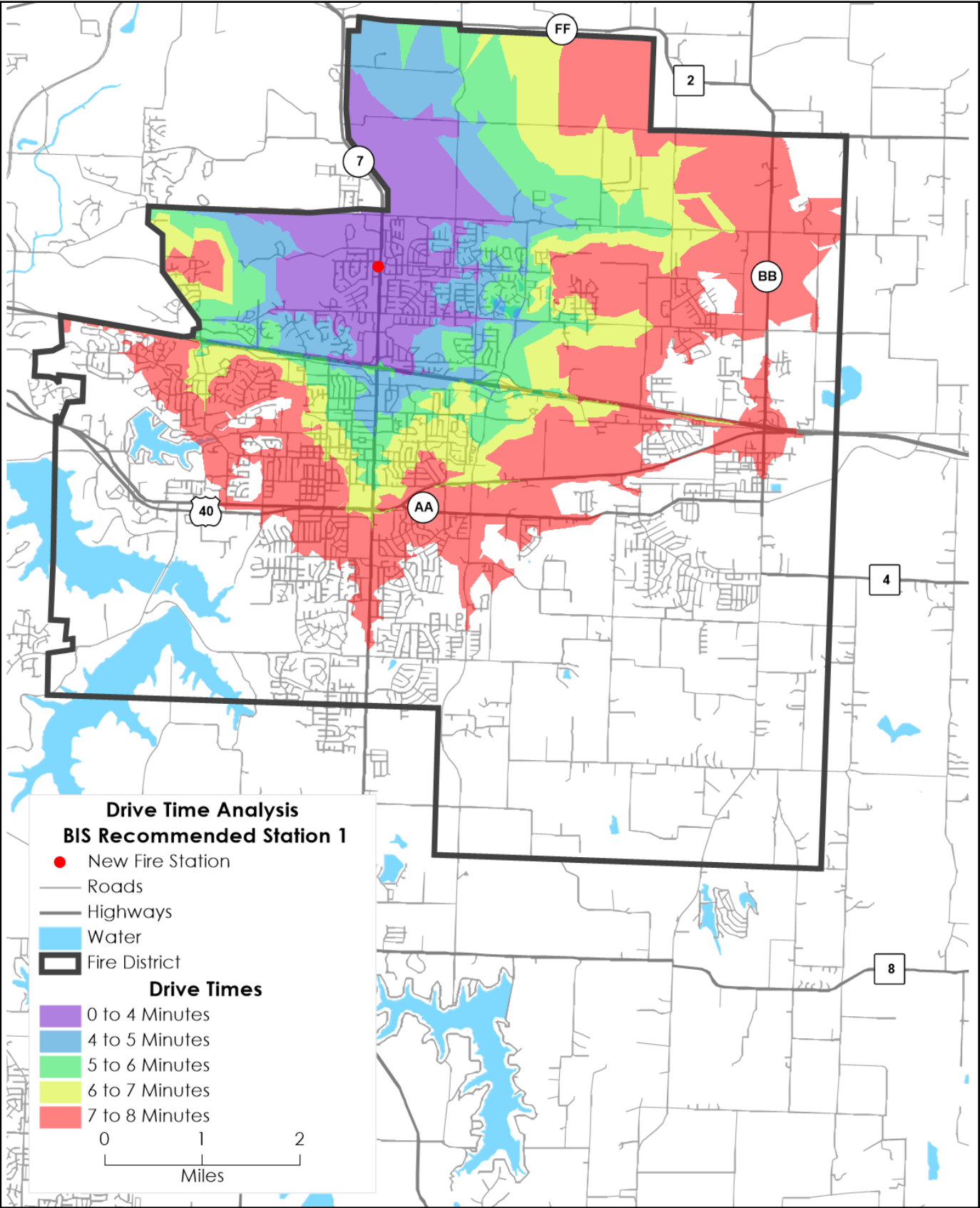
Figure 67. Drive time analysis for BIS recommended station 1.

Page 68

Drive Time Analysis
BIS Recommended Station 2
- 🔴 New Fire Station
- — Roads
- — Highways
- 🟦 Water
- ▭ Fire District

Drive Times
- 🟪 0 to 4 Minutes
- 🟦 4 to 5 Minutes
- 🟩 5 to 6 Minutes
- 🟨 6 to 7 Minutes
- 🟥 7 to 8 Minutes

0   1   2
Miles

Figure 68. Drive time analysis for BIS recommended station 2.

   Page 69

Percent of Emergency En Route to Arrival Times
Meeting 5 Minute Benchmark
from 2014-2018 by Census Block

● Fire Stations
— Highways
▭ Fire District
■ 20.0% and below
■ 20.0% to 40.0%
■ 40.0% to 60.0%
■ 60.0% to 80.0%
■ 80.0% and above
■ No incidents

0   1.5   3
Miles
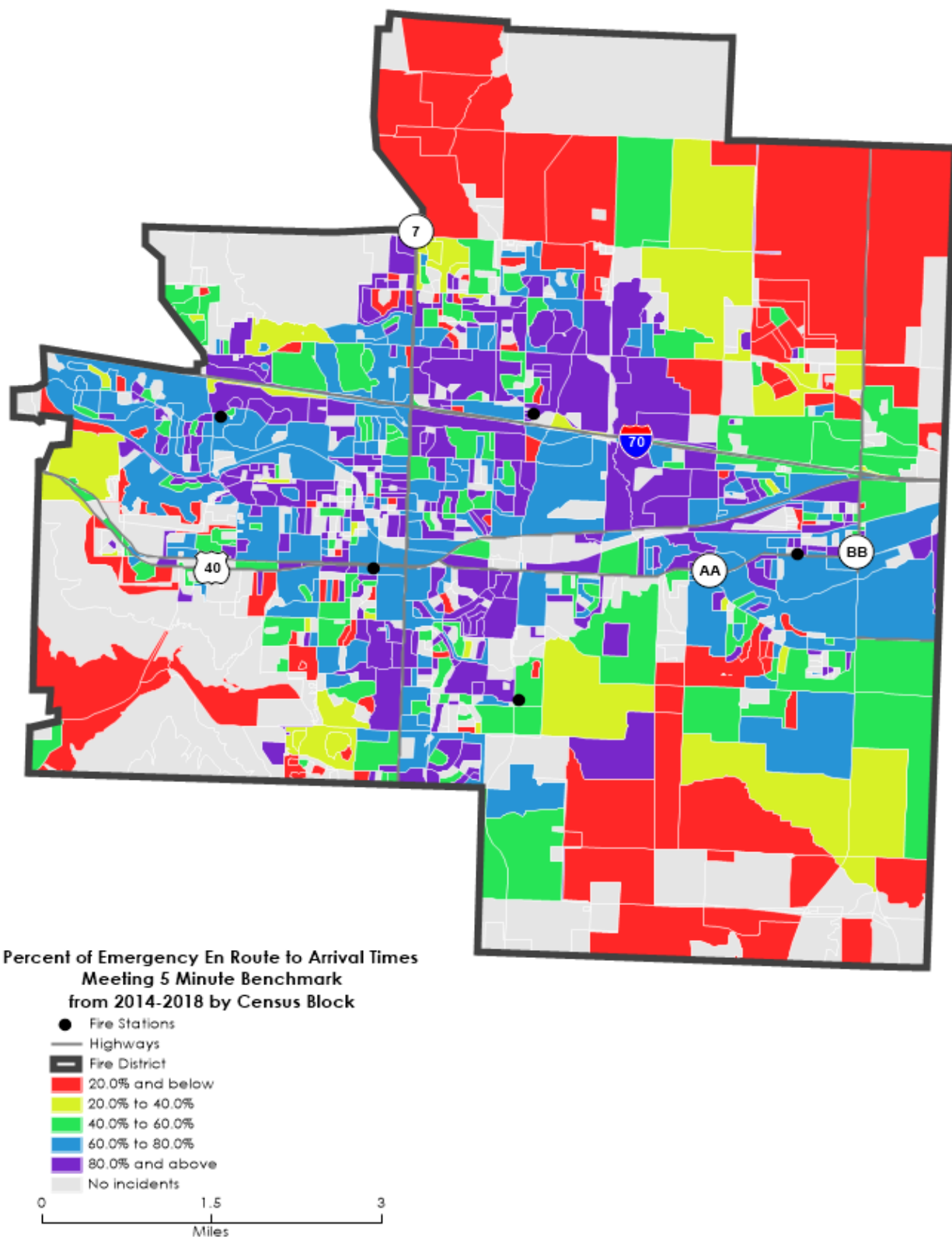
Figure 69. Percent of all En Route to Arrival times meeting 5 minute benchmarks from 2014-2018 in CJCFPD.

Percent of Emergency En Route to Arrival Times Under 5 Minutes from 2014-2018 by Census Block

- Fire Stations
- Highways
- Fire District
- 20.0% and below
- 20.0% to 40.0%
- 40.0% to 60.0%
- 60.0% to 80.0%
- 80.0% and above
- No incidents

0   1.5   3
Miles
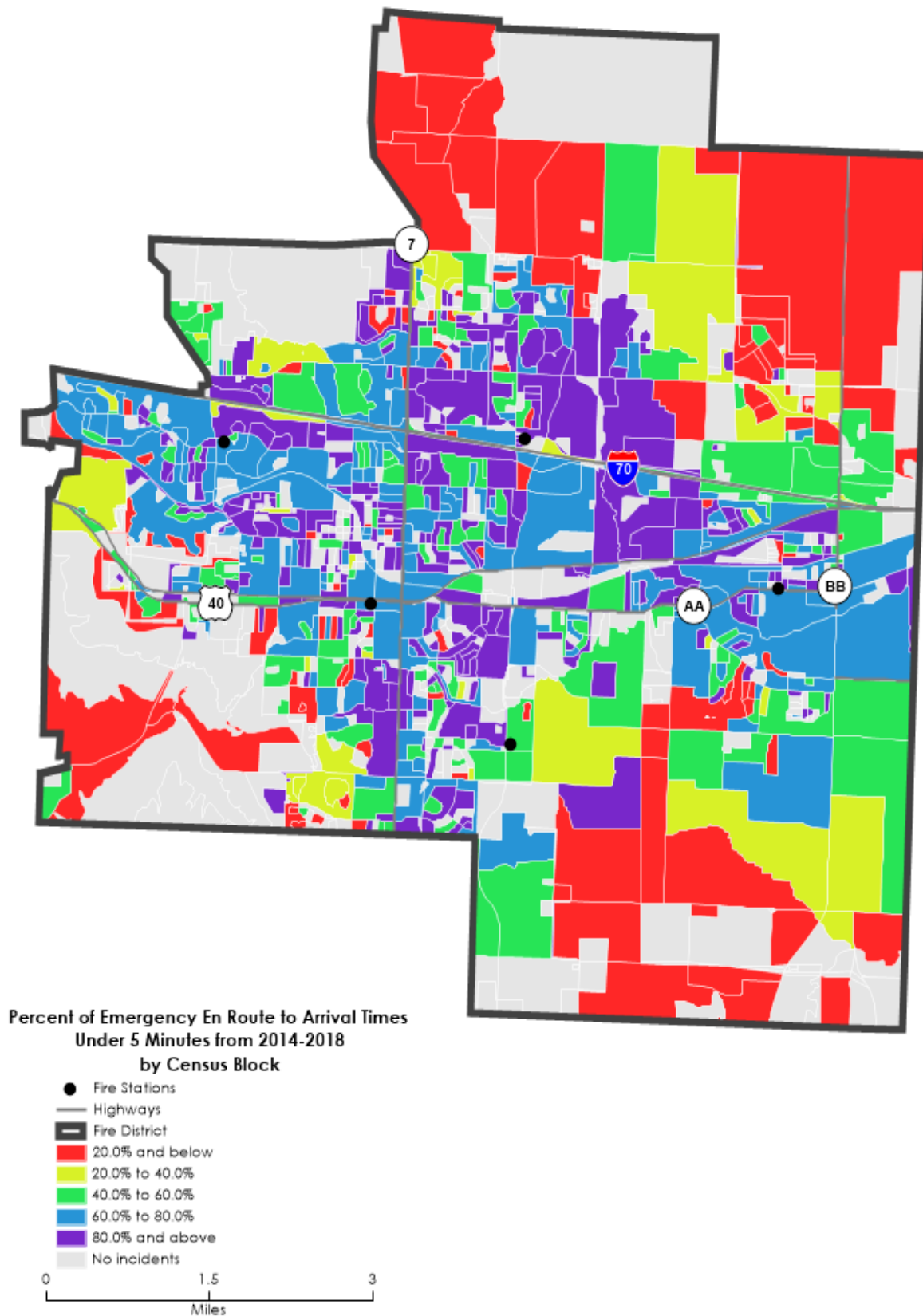
Figure 70. Percent of all En Route to Arrival times under 5 minutes, 2014-2018 in CJCFPD.

Central Jackson County Fire Protection District

Below is a table showing the criteria used to analyze the risk of fire in the CJCFPD. We developed this matrix ourselves based on the 11 factors shown below. All 11 factors were calculated for each Census block in the district, then a score was assigned. The map on p. 73 is the result, showing several areas in red where the fire risk level was high.

Fire Risk Analysis

Fire Risk Element	Score
Major Employers	# of businesses with 100+ employees
Hospitals	# of hospitals
Schools & Child Care Facilities	# of schools & child care facilities
Infrastructure	# of infrastructure locations
Assembly Occupancies	# of occupancies
Populated Areas	0 = no population 1 = 1-1,000 population/sq mile 2 = 1,000-2,500 population/sq mile 3 = 2,500-5,000 population/sq mile 4 = 5,000+ population/sq mile
Populations Over 65	0 = no population 1 = 1-500 population/sq mile 2 = 500-1,000 population/sq mile 3 = 1,000-2,500 population/sq mile 4 = 2,500+ population/sq mile
Developed/Residential Areas (2016 National Land Cover Database)	0 = No residential 1 = 1%-25% residential 2 = 25%-50% residential 3 = 50%-75% residential 4 = 75%-100% residential
Drive Time to Closest Station	0 = 0-4 mins 1 = 4-6 mins 2 = 6-8 mins 3 = 8-10 mins 4 = 10+ mins
Poverty Areas	1 = 2%-3% unemployment rate 2 = 3%-4% unemployment rate 3 = 4%-5% unemployment rate 4 = 5%+ unemployment rate
Agency Fire Incident History	0 = no fire incidents 1 = 1-10 fire incidents/sq mile 2 = 10-50 fire incidents/sq mile 3 = 50-100 fire incidents/sq mile 4 = 100+ fire incidents/sq mile

Risk Level	Risk Score
Low	0-7
Medium Low	8-10
Medium High	11-15
High	16+

Figure 71. Risk elements and assigned scores for the CJCFPD.
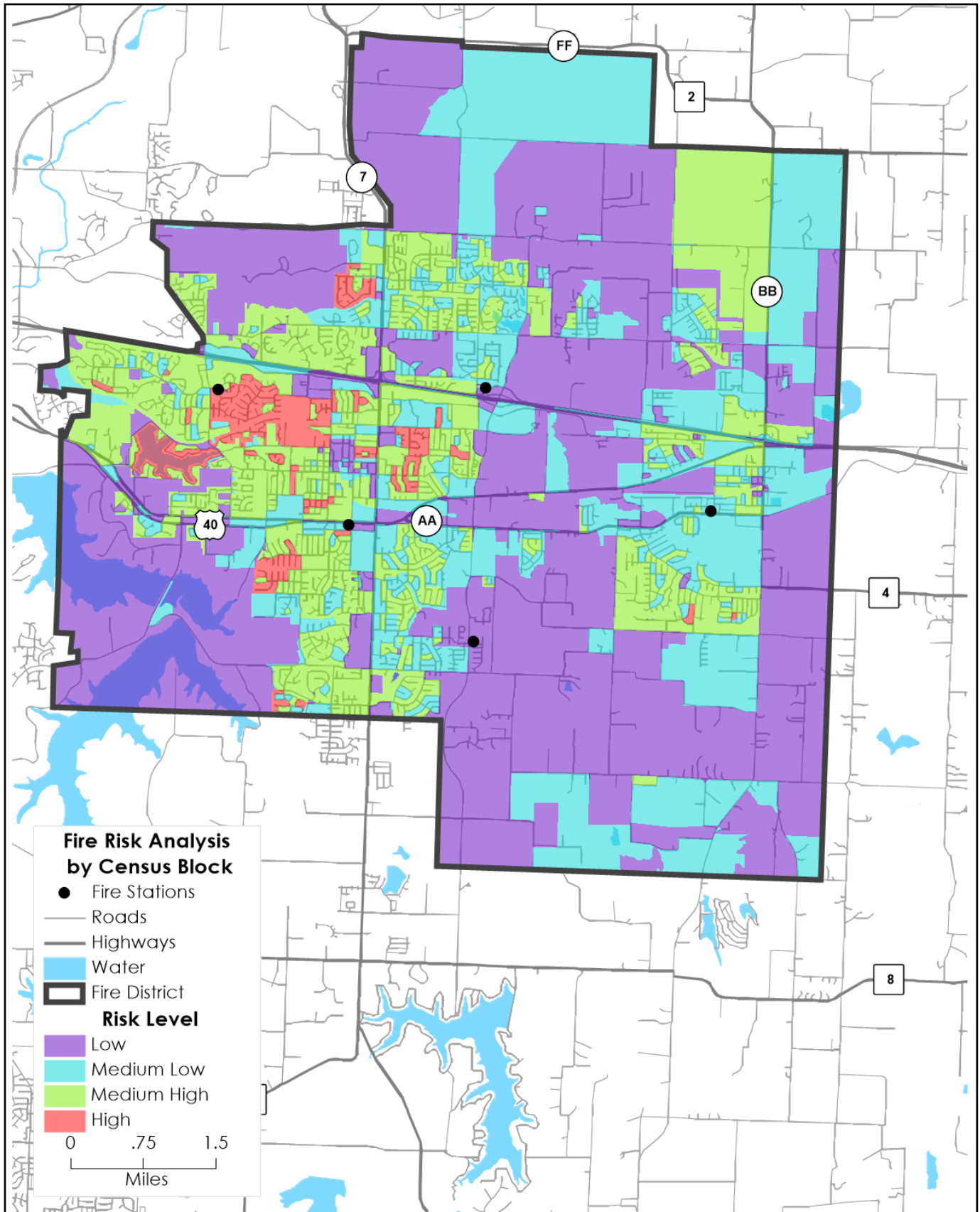
Figure 72. Fire risk analysis in CJCFPD by Census blocks.
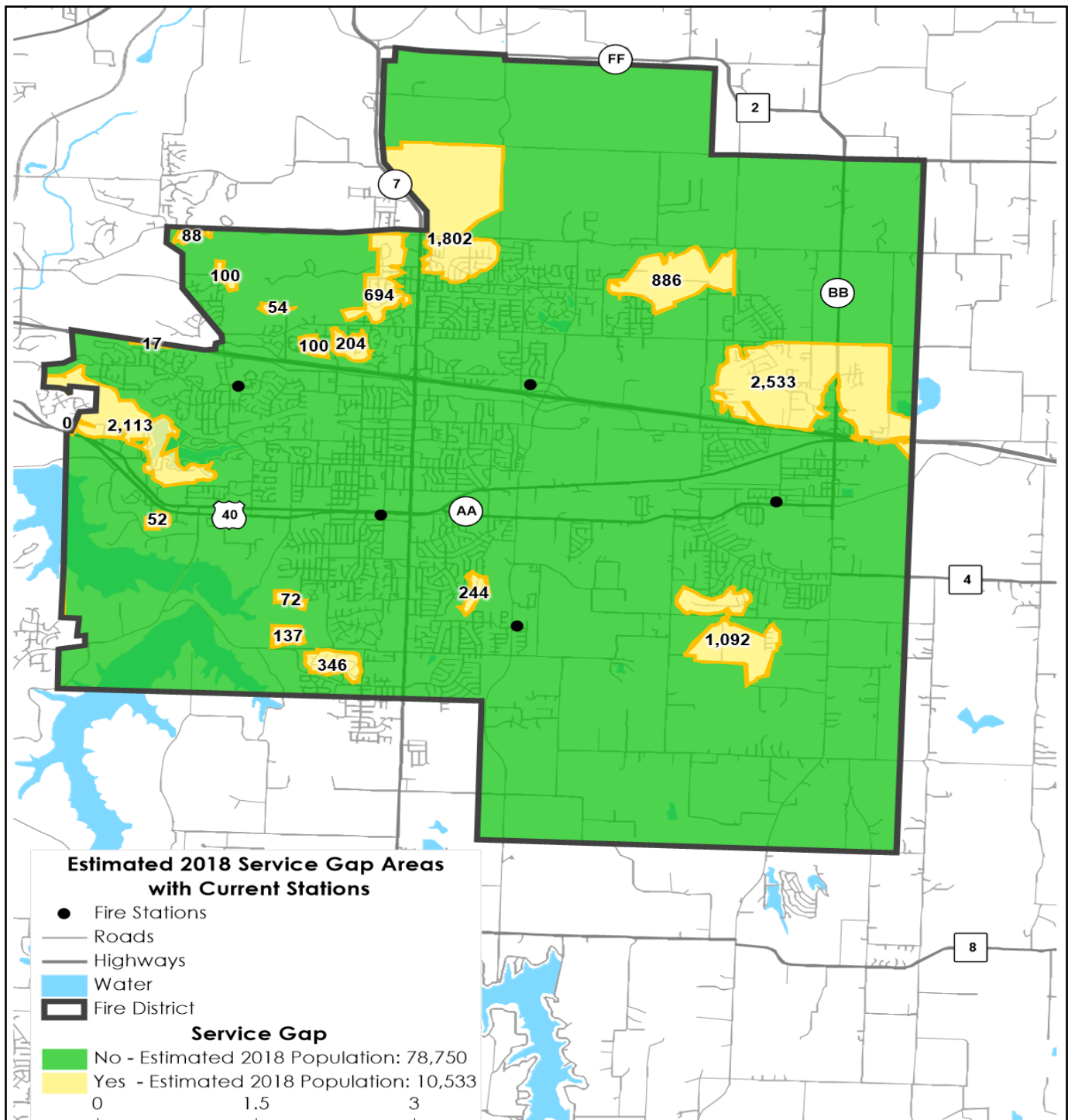
Figure 73. Estimated 2018 Service gaps (gold) with the current five stations. (Note: The black numbers in the unserved areas are the estimated populations.) To determine service gaps, the population density was calculated for each Census block, then each block. For each population category, there is a travel time standard. The denser the population, the higher the risk of fire spreading faster and affecting a greater number of population, therefore, faster response times are needed for these areas. Drive time rings were then overlaid on top of the Census Block Groups to determine whether standard travel time was being met. If not, then it was considered a "service gap" area. If a Census Block Group was included in and outside a service gap area, the gap was estimated according to whatever percentage of that block group fell inside the service gap area. Service gaps are only estimates.

Estimated 2018 Service Gap Areas with New Stations
- ● Current Fire Stations
- ● New Fire Stations
- Roads
- Highways
- Water
- Fire District

Service Gap
- No - Estimated 2018 Population: 85,013
- Yes - Estimated 2018 Population: 4,272

0   1.5   3

Site Selection

Area Criteria:

- Not within 1 mile of current stations
- Near areas with positive population growth
- Near areas with higher percentage of population over 60
- Near service gap areas
- Improve current drive time coverage to residential areas
- Easy access to main artery roads

Once the two areas were selected, an agricultural parcel (1. with no improvement value and 2. near a major intersection) was chosen in each area.

- Site 1: MO Hwy 7 & NW Roanoke Dr / parcel: 36-330-20-11-00-0-00-000
- Site 2: MO Hwy BB & Duncan Rd / parcel: 37-520-02-14-00-0-00-000

Figure 74. Estimated 2018 Service gaps (gold) with possible new stations added. The Roanoke and Hwy 7 site is about 400 yards south of a previous station location. The parcel is currently on the tax rolls for only $840, classified as agricultural. The other site is at the corner of Duncan Road and NW Rust Rd, and is on the tax rolls with a market value of $4,013 for 8.19 acres of agricultural land.

Estimated 2023 Service Gap Areas with Current Stations

- ● Fire Stations
- — Roads
- — Highways
- Water
- ▢ Fire District

Service Gap

- No - Estimated 2018 Population: 77,486
- Yes - Estimated 2018 Population: 15,273

0   1.5   3
Miles
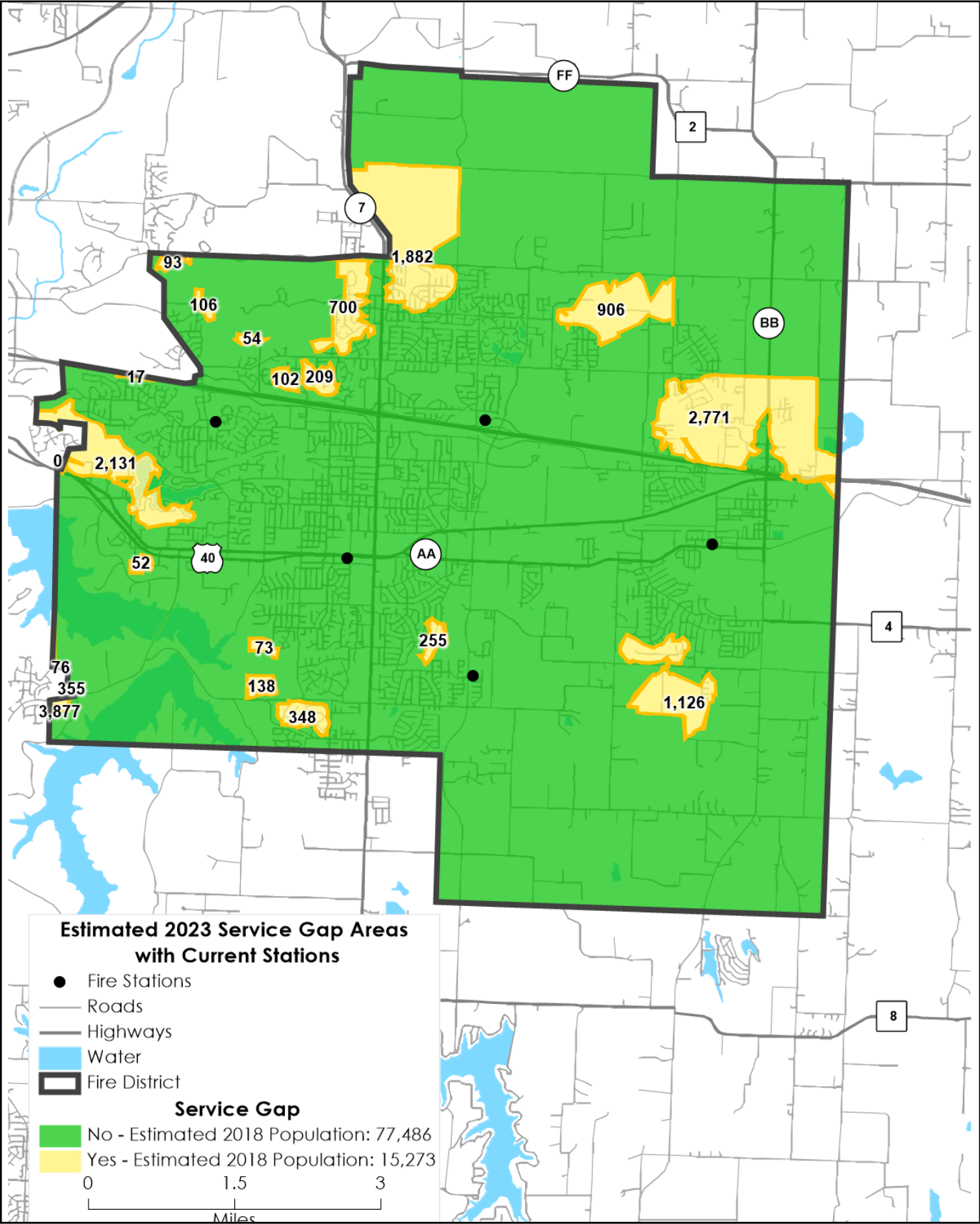
Figure 75. Estimated 2023 Service gaps (gold) with the current five stations.

Estimated 2023 Service Gap Areas with New Stations

- ● Current Fire Stations
- ● New Fire Stations
- — Roads
- — Highways
- Water
- Fire District

Service Gap

- No- Estimated 2018 Population: 84,091
- Yes- Estimated 2018 Population: 8,670

0   1.5   3
Miles
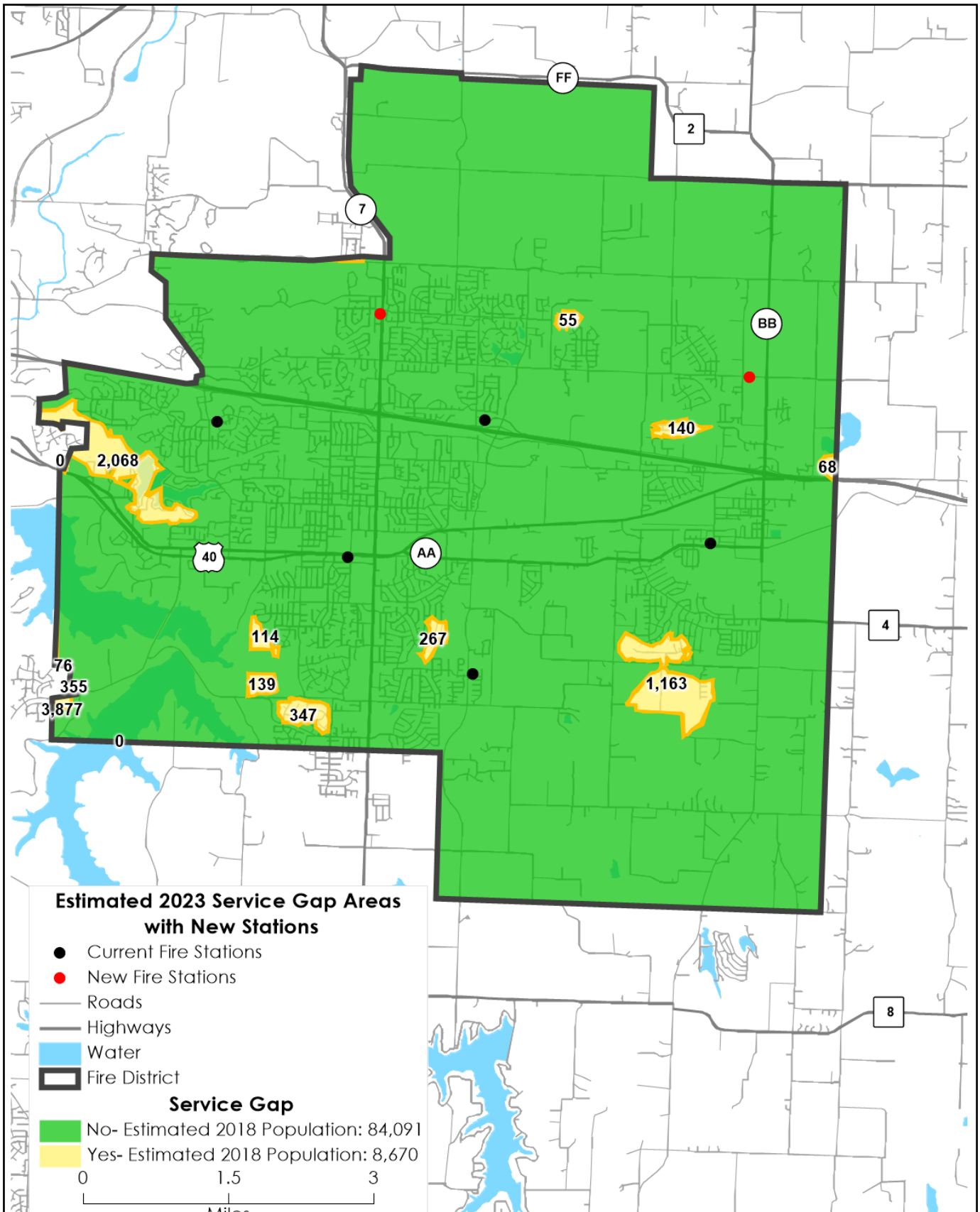
Figure 76. Estimated 2023 Service gaps (gold) with the possible new stations added.

Estimated 2028 Service Gap Areas with Current Stations

- Fire Stations
- Roads
- Highways
- Water
- Fire District

Service Gap

- No - Estimated 2018 Population: 79,944
- Yes - Estimated 2018 Population: 15,897

0   1.5   3
Miles
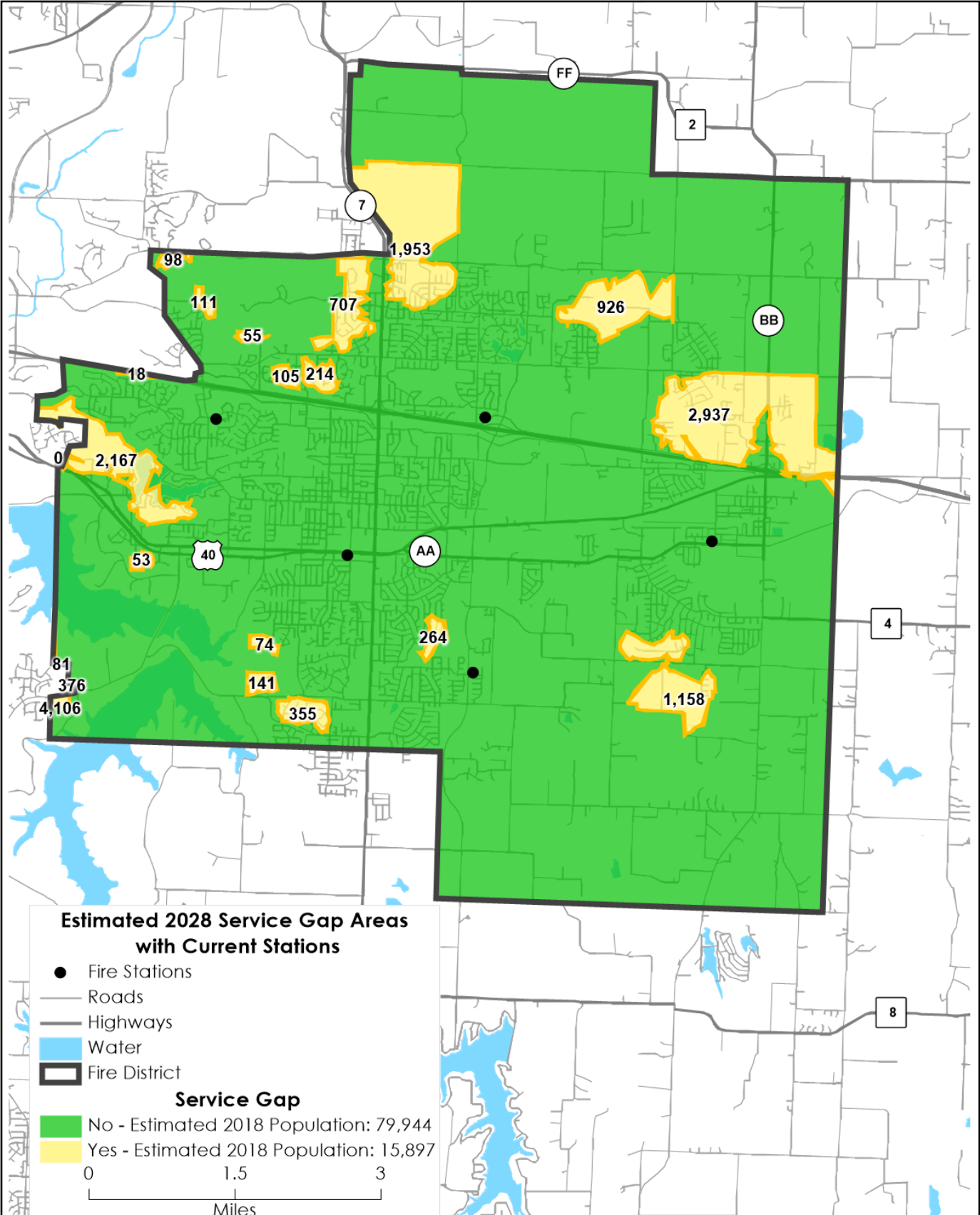
Figure 77. Estimated 2028 Service gaps (gold) with the current five stations.

Estimated 2028 Service Gap Areas with New Stations
- ● Current Fire Stations
- ● New Fire Stations
- Roads
- Highways
- Water
- ▭ Fire District

Service Gap
- No- Estimated 2018 Population: 86,817
- Yes- Estimated 2018 Population: 9,027

0   1.5   3
Miles
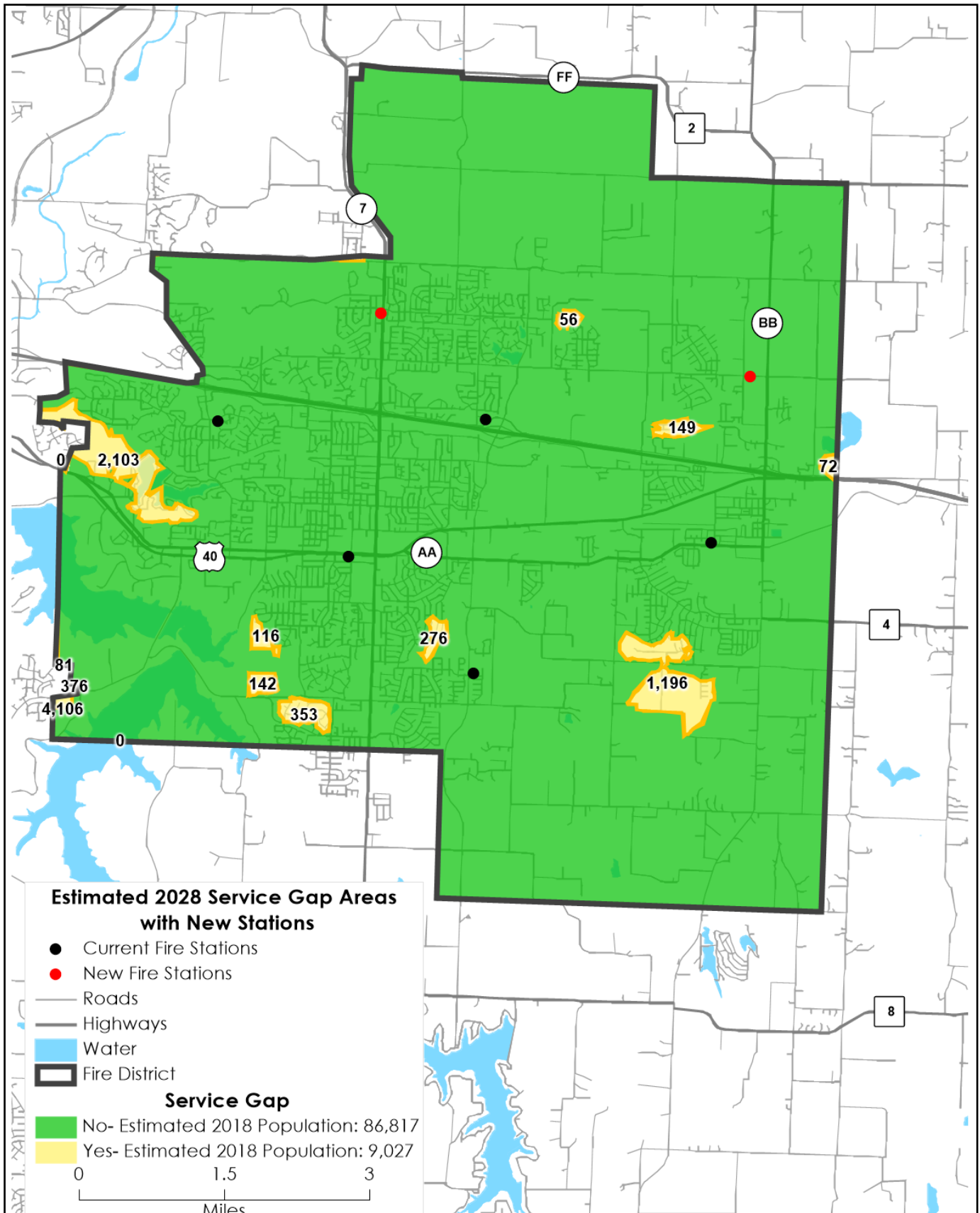
Figure 78. Estimated 2028 Service gaps (gold) with the possible new stations added.

Road Miles: 41.85
Sq. Miles: 1.85
Est 2018 Population: 5,264

Road Miles: 9.56
Sq. Miles: 1.96
Est 2018 Population: 1,610

Road Miles: 27.25
Sq. Miles: 1.29
Est 2018 Population: 2,127

Road Miles: 18.7
Sq. Miles: 1.99
Est 2018 Population: 1,934

Road Miles: 30.34
Sq. Miles: 1.42
Est 2018 Population: 6,117

Road Miles: 53.12
Sq. Miles: 1.89
Est 2018 Population: 5,997

Road Miles: 20.68
Sq. Miles: 1.39
Est 2018 Population: 3,157

Road Miles: 17.60
Sq. Miles: 1.18
Est 2018 Population: 2,675

1 Mile Drive Buffers with New Stations
- ● Current Fire Stations
- ● New Fire Stations
- Roads
- Highways
- Water
- 1 Mile Buffers
- Fire District

0   .75   1.5
Miles

Figure 79. 2018 Population within 1 mile of the current stations and the possible new stations.

Page 80

1 Mile Drive Buffers with New Stations
- ● Current Fire Stations
- ● New Fire Stations
- — Roads
- ━ Highways
- ▨ Water
- ▨ 1 Mile Buffers
- ▭ Fire District

0   .75   1.5
Miles

Road Miles: 41.85
Sq. Miles: 1.85
Est 2028 Population: 5,502

Road Miles: 9.56
Sq. Miles: 1.96
Est 2028 Population: 1,702

Road Miles: 18.7
Sq. Miles: 1.99
Est 2028 Population: 2,191

Road Miles: 27.25
Sq. Miles: 1.29
Est 2028 Population: 2,217

Road Miles: 30.34
Sq. Miles: 1.42
Est 2028 Population: 6,366

Road Miles: 53.12
Sq. Miles: 1.89
Est 2028 Population: 6,221

Road Miles: 20.68
Sq. Miles: 1.39
Est 2028 Population: 3,507

Road Miles: 17.60
Sq. Miles: 1.18
Est 2028 Population: 3,078

Figure 80. 2028 Population within 1 mile of the current stations and the possible new stations. The overlap areas show where multiple stations could service the area.

Central Jackson County Fire Protection District

Traffic Count

I-70 (Between Woods Chapel and 7 Hwy)	Average Daily Traffic	Peak Hour	Peak Traffic
Traveling West	48,329	4PM	3,758 (Per Hour)
Traveling East	47,023	4PM	3,332 (Per Hour)
7 Hwy (Between I-70 and Duncan Rd)	Average Daily Traffic	Peak Hour	Peak Traffic
Traveling South	14,186	5PM	1,104 (Per Hour)
Traveling North	14,512	6PM	1,281 (Per Hour)
40 Hwy (Between Woods Chapel and 7 Hwy)	Average Daily Traffic	Peak Hour	Peak Traffic
Traveling West	10,837	4PM	843 (Per Hour)
Traveling East	11,524	4PM	816 (Per Hour)

Main roadways in Blue Springs. Busiest hours of the day are between 4-6 PM

Figure 81. Motor Vehicle Accidents vs MDOT traffic counts for the CJCFPD, 2017. Data was retrieved from the Missouri Department of Transportation. Records are the average annual daily traffic volume for 2017.
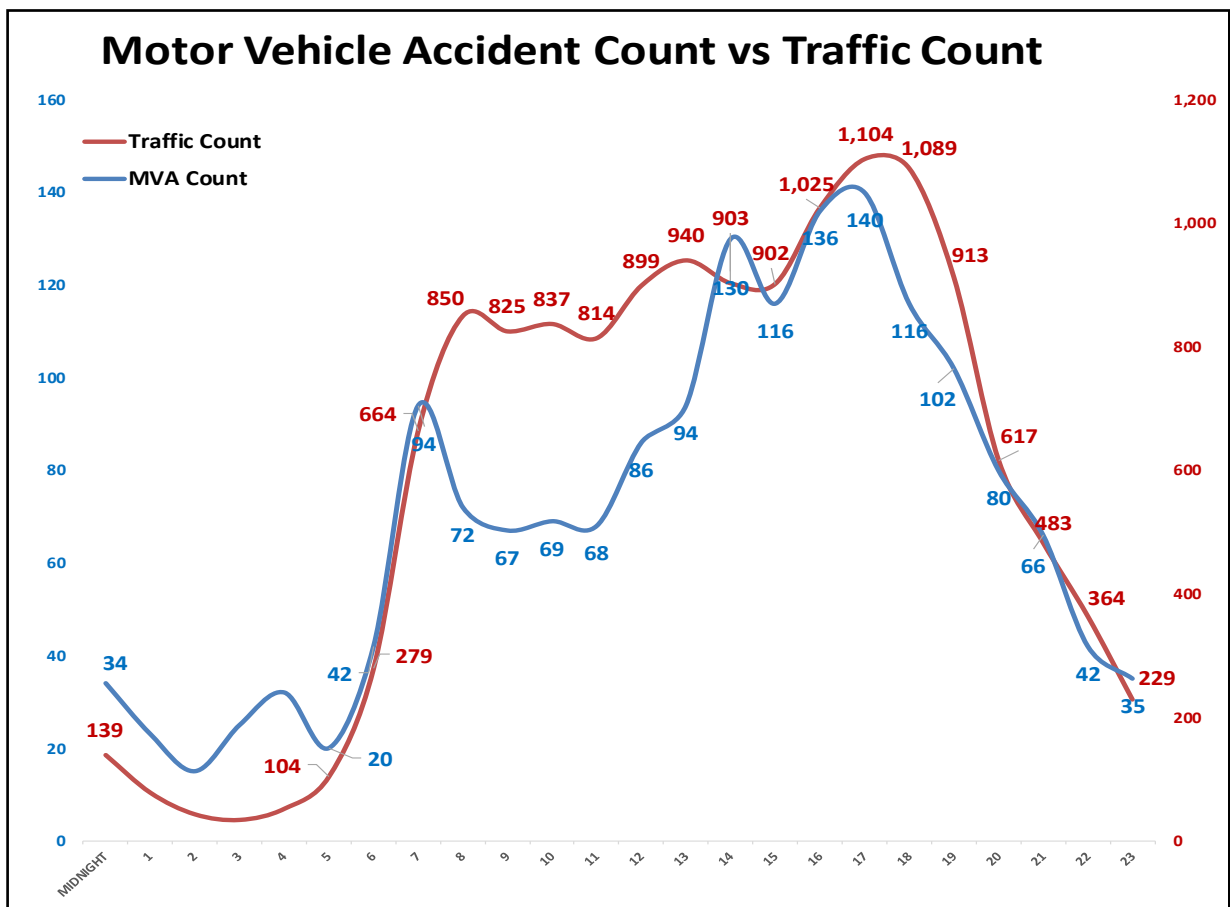
Figure 82. MVA vs MDOT traffic counts for the CJCFPD, 2017. (See note below)

The motor vehicle accident count shared a very similar path with the traffic count. As traffic increased so did MVA count with highest being between 4-6PM. (Example above uses traffic count data from 7 HWY between I-70 and Duncan road vs the MVA count by hour).
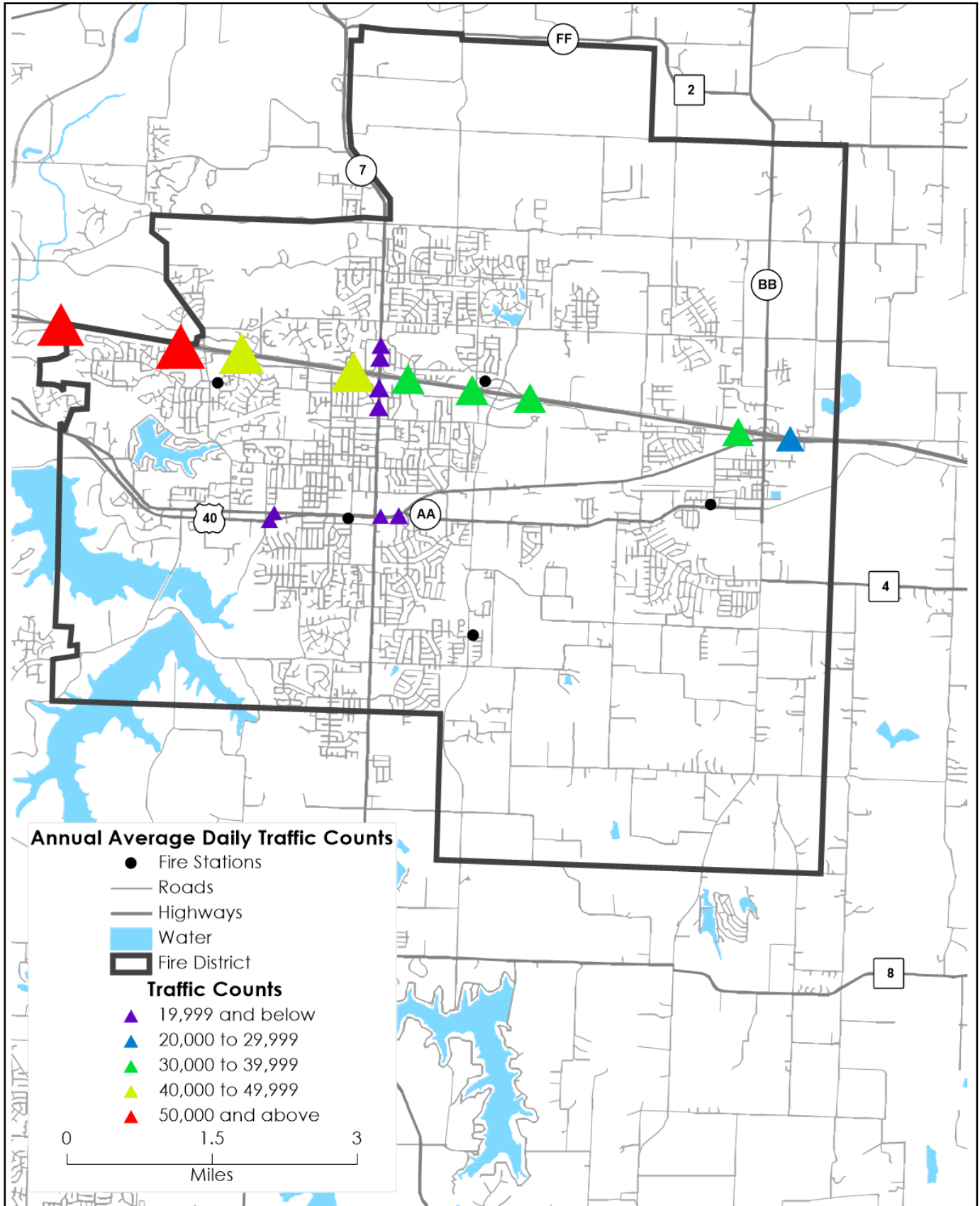
Figure 83. Missouri Department of Transportation traffic counts for the CJCFPD, 2017.

Central Jackson County Fire Protection District

Motor Vehicle Accident Count   Codes: 322, 323, 324

Year	2014	2015	2016	2017	2018	Grand Total
	330	340	343	330	361	1,704

Month	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Jan	34	10.3%	15	4.4%	22	6.4%	27	8.2%	20	5.5%	118	6.9%
Feb	31	9.4%	41	12.1%	13	3.8%	21	6.4%	30	8.3%	136	8.0%
Mar	28	8.5%	30	8.8%	29	8.5%	23	7.0%	27	7.5%	137	8.0%
Apr	22	6.7%	38	11.2%	34	9.9%	29	8.8%	39	10.8%	162	9.5%
May	26	7.9%	25	7.4%	27	7.9%	41	12.4%	30	8.3%	149	8.7%
Jun	27	8.2%	23	6.8%	38	11.1%	36	10.9%	30	8.3%	154	9.0%
Jul	23	7.0%	32	9.4%	30	8.7%	24	7.3%	28	7.8%	137	8.0%
Aug	31	9.4%	25	7.4%	29	8.5%	29	8.8%	34	9.4%	148	8.7%
Sep	28	8.5%	30	8.8%	21	6.1%	31	9.4%	37	10.2%	147	8.6%
Oct	34	10.3%	34	10.0%	32	9.3%	22	6.7%	29	8.0%	151	8.9%
Nov	19	5.8%	23	6.8%	32	9.3%	22	6.7%	30	8.3%	126	7.4%
Dec	27	8.2%	24	7.1%	36	10.5%	25	7.6%	27	7.5%	139	8.2%
Total	330	100.0%	340	100.0%	343	100.0%	330	100.0%	361	100.0%	1,704	100.0%

Quarter	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1st	93	28.2%	86	25.3%	64	18.8%	71	21.5%	77	21.3%	391	22.9%
2nd	75	22.7%	86	25.3%	99	29.1%	106	32.1%	99	27.4%	465	27.3%
3rd	82	24.8%	87	25.6%	80	23.5%	84	25.5%	99	27.4%	432	25.4%
4th	80	24.2%	81	23.8%	100	29.4%	69	20.9%	86	23.8%	416	24.4%
Total	330	100.0%	340	100.0%	343	100.0%	330	100.0%	361	100.0%	1,704	100.0%

Day of Week	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Sunday	31	9.4%	39	11.5%	40	11.7%	53	16.1%	51	14.1%	214	12.6%
Monday	51	15.5%	67	19.7%	37	10.8%	29	8.8%	52	14.4%	236	13.8%
Tuesday	53	16.1%	40	11.8%	44	12.8%	45	13.6%	52	14.4%	234	13.7%
Wednesday	42	12.7%	45	13.2%	65	19.0%	53	16.1%	47	13.0%	252	14.8%
Thursday	37	11.2%	59	17.4%	47	13.7%	59	17.9%	49	13.6%	251	14.7%
Friday	66	20.0%	44	12.9%	52	15.2%	51	15.5%	57	15.8%	270	15.8%
Saturday	50	15.2%	46	13.5%	58	16.9%	40	12.1%	53	14.7%	247	14.5%
Total	330	100.0%	340	100.0%	343	100.0%	330	100.0%	361	100.0%	1,704	100.0%

Time of Day	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Morning	45	13.6%	65	19.1%	89	25.9%	71	21.5%	57	15.8%	327	19.2%
Afternoon	111	33.6%	116	34.1%	100	29.2%	99	30.0%	137	38.0%	563	33.0%
Evening	140	42.4%	125	36.8%	127	37.0%	123	37.3%	125	34.6%	640	37.6%
Night	34	10.3%	34	10.0%	27	7.9%	37	11.2%	42	11.6%	174	10.2%
Total	330	100.0%	340	100.0%	343	100.0%	330	100.0%	361	100.0%	1,704	100.0%

Time of Day
Morning 4AM-10AM
Afternoon 10AM-4PM
Evening 4PM-10PM
Night 10PM-4AM

Figures 84-89. All motor vehicle accidents for 2014-2018, shown by year, month, quarter, day of week and time of day, count and percentages. 2018 had the highest incident count. April had the highest count for a month. The 2nd Quarter had the highest incident count. Friday was the highest incident count. Evening was the highest incident count.

Time	2014		2015		2016		2017		2018		Grand Total	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
12 AM	6	1.8%	8	2.4%	5	1.5%	5	1.5%	10	2.8%	34	2.0%
1 AM	6	1.8%	3	0.9%	2	0.6%	6	1.8%	6	1.7%	23	1.3%
2 AM	1	0.3%	6	1.8%	1	0.3%	6	1.8%	1	0.3%	15	0.9%
3 AM	2	0.6%	3	0.9%	8	2.3%	5	1.5%	7	1.9%	25	1.5%
4 AM	4	1.2%	8	2.4%	11	3.2%	2	0.6%	7	1.9%	32	1.9%
5 AM	4	1.2%	6	1.8%	5	1.5%	3	0.9%	2	0.6%	20	1.2%
6 AM	6	1.8%	7	2.1%	13	3.8%	7	2.1%	9	2.5%	42	2.5%
7 AM	13	3.9%	16	4.7%	24	7.0%	26	7.9%	15	4.2%	94	5.5%
8 AM	11	3.3%	15	4.4%	18	5.2%	22	6.7%	6	1.7%	72	4.2%
9 AM	7	2.1%	13	3.8%	18	5.2%	11	3.3%	18	5.0%	67	3.9%
10 AM	15	4.5%	7	2.1%	18	5.2%	13	3.9%	16	4.4%	69	4.0%
11 AM	10	3.0%	21	6.2%	12	3.5%	9	2.7%	16	4.4%	68	4.0%
12 PM	17	5.2%	17	5.0%	16	4.7%	18	5.5%	18	5.0%	86	5.0%
1 PM	20	6.1%	21	6.2%	10	2.9%	23	7.0%	20	5.5%	94	5.5%
2 PM	32	9.7%	25	7.4%	18	5.2%	17	5.2%	38	10.5%	130	7.6%
3 PM	17	5.2%	25	7.4%	26	7.6%	19	5.8%	29	8.0%	116	6.8%
4 PM	34	10.3%	26	7.6%	27	7.9%	21	6.4%	28	7.8%	136	8.0%
5 PM	28	8.5%	31	9.1%	34	9.9%	26	7.9%	21	5.8%	140	8.2%
6 PM	29	8.8%	23	6.8%	18	5.2%	20	6.1%	26	7.2%	116	6.8%
7 PM	25	7.6%	17	5.0%	19	5.5%	21	6.4%	20	5.5%	102	6.0%
8 PM	14	4.2%	15	4.4%	14	4.1%	19	5.8%	18	5.0%	80	4.7%
9 PM	10	3.0%	13	3.8%	15	4.4%	16	4.8%	12	3.3%	66	3.9%
10 PM	13	3.9%	8	2.4%	4	1.2%	9	2.7%	8	2.2%	42	2.5%
11 PM	6	1.8%	6	1.8%	7	2.0%	6	1.8%	10	2.8%	35	2.1%
Grand Total	330	100.0%	340	100.0%	343	100.0%	330	100.0%	361	100.0%	1,704	100.0%

Figures 90-91. Incident distribution, by hour, for CJCFPD, 2014-2018. 5 PM is the overall peak incident time. 2 AM is the lowest.

Top 10 MVA Locations 2014-2018	
Name	Count
I 70 & NW Adams Dairy Pkwy	79
I 70 & NW Woods Chapel Rd	71
I 70 & NW 7 Hwy	70
Adams Dairy & SE 40 Hwy	33
40 & SW Woods Chapel Rd	26
7 & SW Moreland School Rd	25
40 & NW Sni-A-Bar Blvd	25
7 & NW Mock Ave	19
Adams Dairy & NE Coronado Dr	18
7 & NW R D Mize Rd	15

PAGE DELIBERATELY LEFT BLANK

Page 86

Hospital/Senior Facilities in the CJCFPD Incident Count Analysis

Overview of St. Mary's Hospital and Senior Living Centers

St. Mary's Hospital Yearly Incident Totals

Year	Incidents
2014	775
2015	803
2016	832
2017	757
2018	567
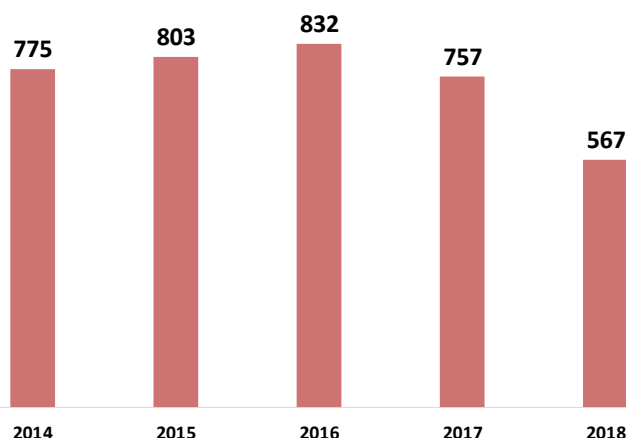
Figures 92-93. Incidents at St. Mary's Hospital, 2014-2018 and aerial photo.

St. Mary's Village Yearly Incident Totals

Year	Incidents
2014	116
2015	174
2016	266
2017	386
2018	261
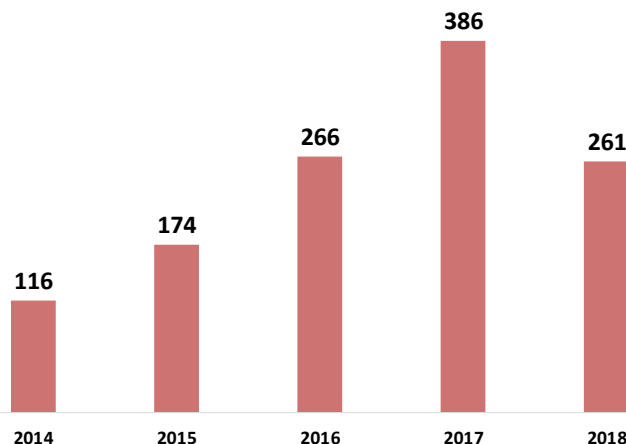
Figures 94-95. Incidents at St. Mary's Village, 2014-2018 and aerial photo.

The Parkway Yearly Incident Totals

Year	Incidents
2015	36
2016	144
2017	119
2018	146
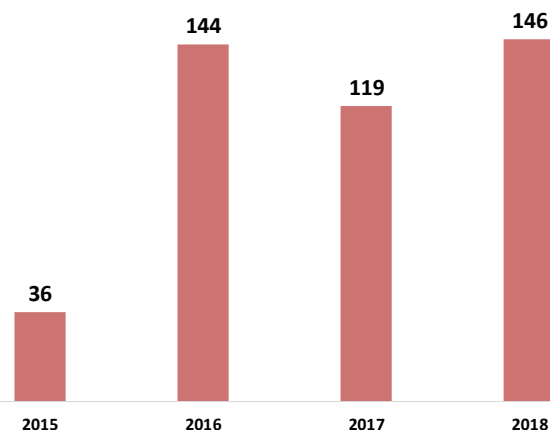
Figures 96-97. Incidents at The Parkway, 2015-2018 and aerial photo.

Benton House Yearly Incident Totals

2015	2016	2017	2018
37	72	99	127
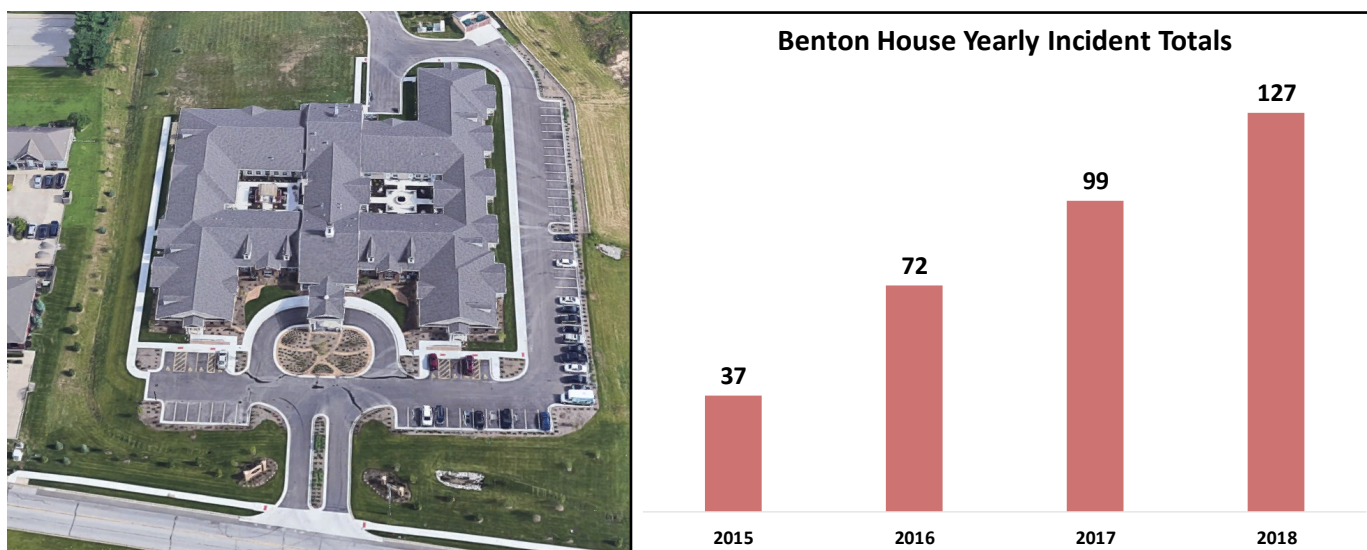
Figures 98-99. Incidents at Benton House, 2015-2018 and aerial photo.

Shangri La Yearly Incident Totals

2014	2015	2016	2017	2018
178	154	198	176	152
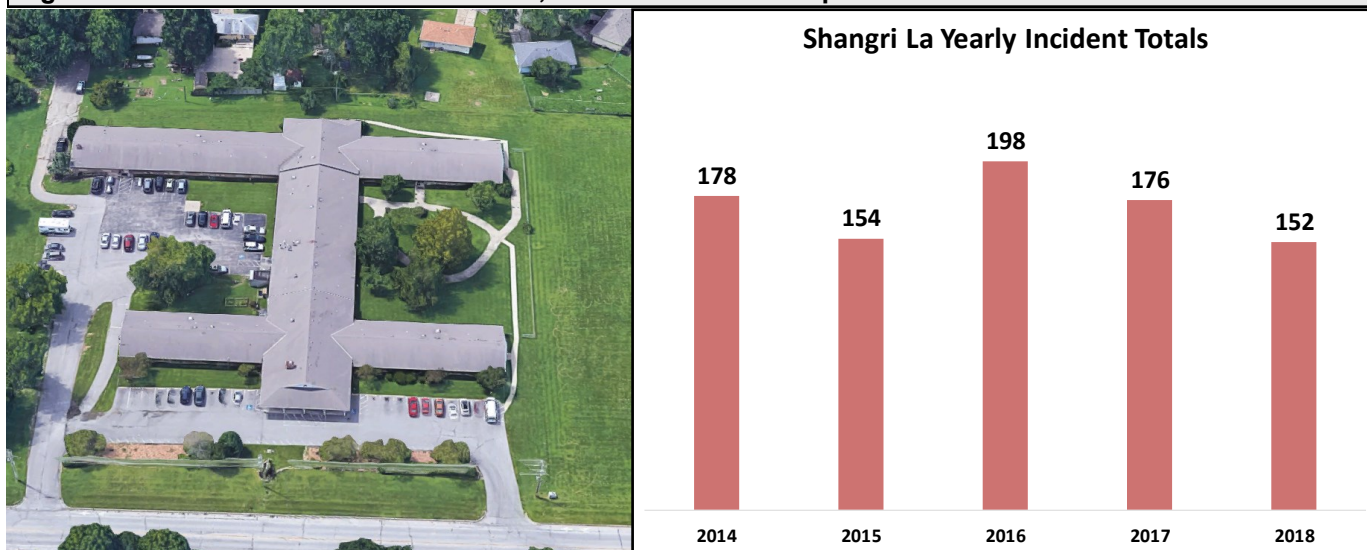
Figures 100-101. Incidents at Shangri La, 2014-2018 and aerial photo.

Facility	2014	2015	2016	2017	2018	Grand Total
St. Mary's Hospital	775	803	832	757	567	3,734
St. Mary's Village	116	174	266	386	261	1,203
Shangri La	178	154	198	176	152	858
The Parkway		36	144	119	146	445
Benton House		37	72	99	127	335
Grand Total	1,069	1,204	1,512	1,537	1,253	6,575

Figure 102. Incident summary at St. Mary's Hospital and senior living centers.

St. Mary's Hospital

St. Mary's Hospital Yearly Incident Totals

	2014	2015	2016	2017	2018
	775	803	832	757	567
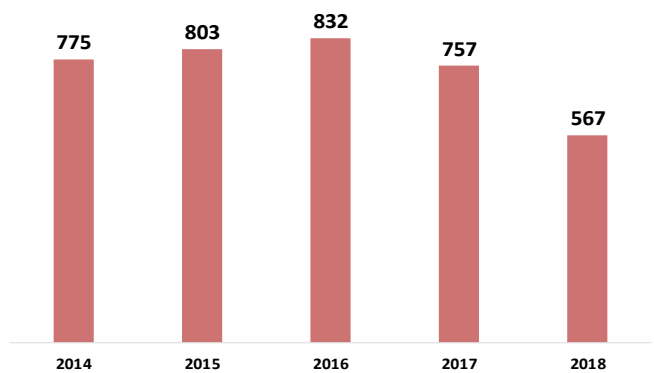
Figure 103. (Left) Incidents by year at St. Mary's Hospital. Figure 104. (Below Left) Count of response codes. Figure 105 (Below) Count of type of call. Incident count resulted from data acquired from CJCFPD. Data was constructed to show a single unit , responding to a single incident, on a single date.

Count of Incident Number by NFIRS CODE

	2014	2015	2016	2017	2018	Grand Total
200		1				1
300	41	45	21	42	4	153
311	2		1		1	4
320	54	26	58	19	15	172
321	659	695	727	677	532	3,290
322		1			2	3
324					1	1
331		2	2			4
412					1	1
500	1		2			3
510	1					1
520			1			1
550				1		1
551	1	1	1			3
554		2			2	4
600			1			1
611	13	25	14	15	8	75
622		1				1
651	1					1
700	1		2	1		4
740	1			2		3
743		3				3
745		1	2		1	4
Total	775	803	832	757	567	3,734

Non-Emergency Upgraded to Emergency, 2
Emergency Downgraded to Non-Emergency, 5
Canceled, 124
Not Applicable, 2
Emergency, 82
Non-Emergency, 3,519
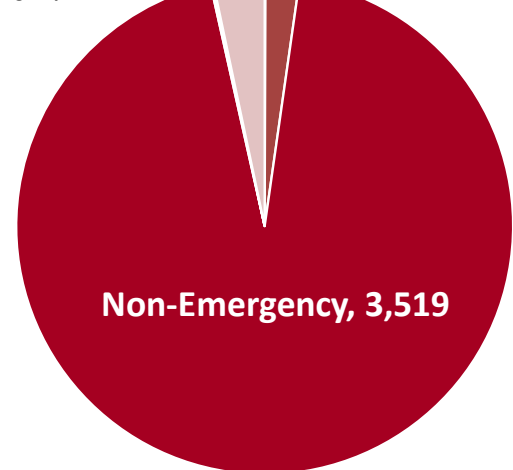
Code 300: Rescue, EMS call, other.

Code 320: EMS incident.

Code 321: EMS call. Includes calls when the patient refuses treatment.

Code 611: Canceled in route.

Page 90

Time	Count
12 AM	142
1 AM	120
2 AM	89
3 AM	95
4 AM	72
5 AM	60
6 AM	67
7 AM	47
8 AM	51
9 AM	79
10 AM	124
11 AM	194
12 PM	226
1 PM	313
2 PM	322
3 PM	350
4 PM	228
5 PM	221
6 PM	175
7 PM	165
8 PM	157
9 PM	136
10 PM	153
11 PM	148

Time of Incident by Alarm Time
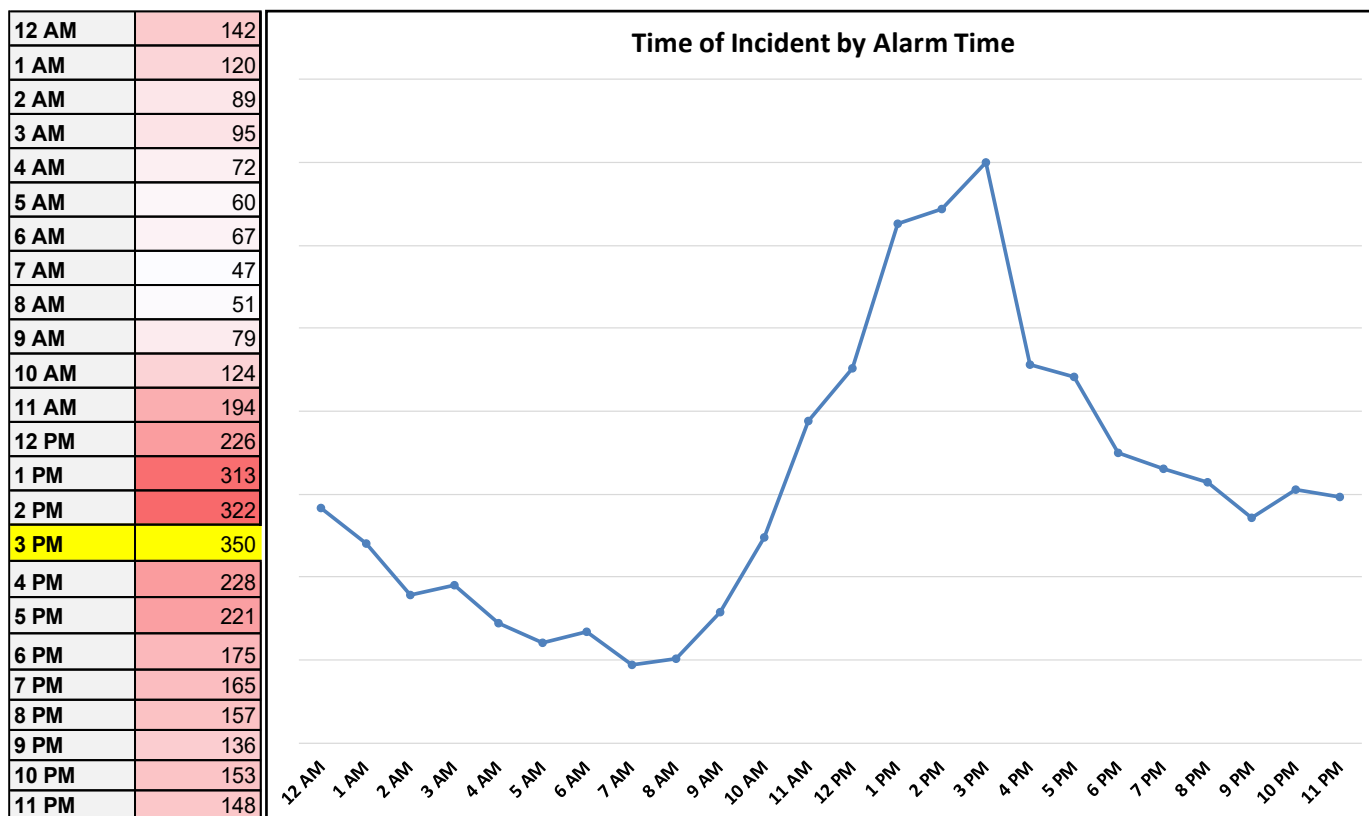
Figure 106. Time of incident by alarm time for years 2014-2018.

Response Time (Emergency Calls Only)

	2014	2015	2016	2017	2018
0 to 2 min	0	1	0	0	0
2 to 4 min	0	1	0	1	0
4 to 6 min	1	0	1	0	0
6 to 8 min	5	0	3	0	0
8 to 10 min	3	3	0	2	0
10 to 12 min	5	2	2	0	1
12 to 14 min	2	3	0	4	4
14 to 16 min	1	0	2	0	2
16 to 18 min	0	1	1	0	2
18 to 20 min	2	3	0	0	0
20 to 25 min	1	2	2	0	1
25 to 30 min	0	2	1	1	1
More than 30 min	4	2	1	6	2
Total Records	24	20	13	14	13

Units Dispatched by Year

Unit	2014	2015	2016	2017	2018	Total
C7		1	1			2
Duty					2	2
E2	4	3	2		3	12
E3	21	22	11	16	14	84
E4		7	8			15
E5		5	1	4	9	19
L1	2	9	7	7	10	35
L11	1					1
M1	119	66	31	26	16	258
M2	503	399	159	37	18	1,116
M3	165	119	65	38	41	428
M4	4	248	613	213	79	1,157
M5				474	441	915
M6				1		1
SQ1	1					1
T4			1			1
Grand Total	820	879	899	816	633	4,047

Note (Above): Not all units dispatched actually arrive at incident.

Total In Service Time (Emergency Calls Only)

Year	Time
2014	31 Hours, 47 Minutes
2015	24 Hours, 9 Minutes
2016	17 Hours, 4 Minutes
2017	23 Hours, 24 Minutes
2018	16 Hours, 52 Minutes

Figures 107-109. Response Time Tables and Units Dispatched by Year.

Central Jackson County Fire Protection District

St. Mary's Hospital

Year	2014	2015	2016	2017	2018	Grand Total
	775	803	832	757	567	3,734

Month	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Jan	70	9.0%	84	10.5%	75	9.0%	77	10.2%	46	8.1%	352	9.4%
Feb	55	7.1%	64	8.0%	65	7.8%	68	9.0%	41	7.2%	293	7.8%
Mar	62	8.0%	74	9.2%	63	7.6%	68	9.0%	44	7.8%	311	8.3%
Apr	78	10.1%	69	8.6%	65	7.8%	57	7.5%	59	10.4%	328	8.8%
May	55	7.1%	76	9.5%	67	8.1%	71	9.4%	54	9.5%	323	8.7%
Jun	68	8.8%	46	5.7%	73	8.8%	60	7.9%	51	9.0%	298	8.0%
Jul	67	8.6%	68	8.5%	70	8.4%	53	7.0%	39	6.9%	297	8.0%
Aug	61	7.9%	50	6.2%	70	8.4%	61	8.1%	58	10.2%	300	8.0%
Sep	63	8.1%	69	8.6%	66	7.9%	53	7.0%	44	7.8%	295	7.9%
Oct	62	8.0%	63	7.8%	74	8.9%	73	9.6%	40	7.1%	312	8.4%
Nov	67	8.6%	72	9.0%	68	8.2%	58	7.7%	46	8.1%	311	8.3%
Dec	67	8.6%	68	8.5%	76	9.1%	58	7.7%	45	7.9%	314	8.4%
Total	775	100.0%	803	100.0%	832	100.0%	757	100.0%	567	100.0%	3,734	100.0%

Quarter	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1st	187	24.1%	222	27.6%	203	25.3%	213	28.1%	131	23.1%	956	25.6%
2nd	201	25.9%	191	23.8%	205	25.5%	188	24.8%	164	28.9%	949	25.4%
3rd	191	24.6%	187	23.3%	206	25.7%	167	22.1%	141	24.9%	892	23.9%
4th	196	25.3%	203	25.3%	218	27.1%	189	25.0%	131	23.1%	937	25.1%
Total	775	100.0%	803	100.0%	832	100.0%	757	100.0%	567	100.0%	3,734	100.0%

Day of Week	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Sunday	89	11.5%	85	10.6%	85	10.2%	59	7.8%	47	8.3%	365	9.8%
Monday	113	14.6%	108	13.4%	120	14.4%	108	14.3%	84	14.8%	533	14.3%
Tuesday	123	15.9%	134	16.7%	132	15.9%	132	17.4%	91	16.0%	612	16.4%
Wednesday	113	14.6%	102	12.7%	130	15.6%	123	16.2%	94	16.6%	562	15.1%
Thursday	115	14.8%	132	16.4%	135	16.2%	110	14.5%	94	16.6%	586	15.7%
Friday	120	15.5%	146	18.2%	141	16.9%	144	19.0%	87	15.3%	638	17.1%
Saturday	102	13.2%	96	12.0%	89	10.7%	81	10.7%	70	12.3%	438	11.7%
Total	775	100.0%	803	100.0%	832	100.0%	757	100.0%	567	100.0%	3,734	100.0%

Time of Day	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Morning	75	9.7%	85	10.6%	64	7.7%	67	8.9%	85	15.0%	376	10.1%
Afternoon	304	39.2%	298	37.1%	375	45.1%	340	44.9%	212	37.4%	1,529	40.9%
Evening	243	31.4%	243	30.3%	236	28.4%	197	26.0%	163	28.7%	1,082	29.0%
Night	153	19.7%	177	22.0%	157	18.9%	153	20.2%	107	18.9%	747	20.0%
Total	775	100.0%	803	100.0%	832	100.0%	757	100.0%	567	100.0%	3,734	100.0%

Time of Day	
Morning	4AM-10AM
Afternoon	10AM-4PM
Evening	4PM-10PM
Night	10PM-4AM

Figures 110-115. All St. Mary's incidents for 2014-2018, shown by year, month, quarter, day of week and time of day, count and percentages. 2016 was the highest incident count in recent history. January was the highest month, the first quarter had the most incidents, Friday was the busiest day, and the afternoon had the overall most.

Time	2014		2015		2016		2017		2018		Grand Total	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
12 AM	30	3.9%	30	3.7%	38	4.6%	29	3.8%	15	2.6%	142	3.8%
1 AM	28	3.6%	34	4.2%	22	2.6%	19	2.5%	17	3.0%	120	3.2%
2 AM	20	2.6%	21	2.6%	19	2.3%	22	2.9%	7	1.2%	89	2.4%
3 AM	16	2.1%	28	3.5%	17	2.0%	16	2.1%	18	3.2%	95	2.5%
4 AM	14	1.8%	15	1.9%	13	1.6%	17	2.2%	13	2.3%	72	1.9%
5 AM	18	2.3%	15	1.9%	10	1.2%	7	0.9%	10	1.8%	60	1.6%
6 AM	9	1.2%	17	2.1%	13	1.6%	10	1.3%	18	3.2%	67	1.8%
7 AM	6	0.8%	10	1.2%	8	1.0%	11	1.5%	12	2.1%	47	1.3%
8 AM	9	1.2%	14	1.7%	9	1.1%	6	0.8%	13	2.3%	51	1.4%
9 AM	19	2.5%	14	1.7%	11	1.3%	16	2.1%	19	3.4%	79	2.1%
10 AM	29	3.7%	22	2.7%	31	3.7%	27	3.6%	15	2.6%	124	3.3%
11 AM	33	4.3%	37	4.6%	48	5.8%	50	6.6%	26	4.6%	194	5.2%
12 PM	46	5.9%	37	4.6%	49	5.9%	58	7.7%	36	6.3%	226	6.1%
1 PM	51	6.6%	59	7.3%	89	10.7%	77	10.2%	37	6.5%	313	8.4%
2 PM	69	8.9%	63	7.8%	70	8.4%	65	8.6%	55	9.7%	322	8.6%
3 PM	76	9.8%	80	10.0%	88	10.6%	63	8.3%	43	7.6%	350	9.4%
4 PM	56	7.2%	45	5.6%	45	5.4%	42	5.5%	40	7.1%	228	6.1%
5 PM	54	7.0%	37	4.6%	57	6.9%	40	5.3%	33	5.8%	221	5.9%
6 PM	36	4.6%	45	5.6%	41	4.9%	30	4.0%	23	4.1%	175	4.7%
7 PM	32	4.1%	49	6.1%	35	4.2%	27	3.6%	22	3.9%	165	4.4%
8 PM	38	4.9%	34	4.2%	27	3.2%	30	4.0%	28	4.9%	157	4.2%
9 PM	27	3.5%	33	4.1%	31	3.7%	28	3.7%	17	3.0%	136	3.6%
10 PM	26	3.4%	34	4.2%	30	3.6%	36	4.8%	27	4.8%	153	4.1%
11 PM	33	4.3%	30	3.7%	31	3.7%	31	4.1%	23	4.1%	148	4.0%
Grand Total	775	100.0%	803	100.0%	832	100.0%	757	100.0%	567	100.0%	3,734	100.0%

Figure 116. Incident distribution, by hour, for CJCFPD, 2014-2018. 3 PM is the overall peak incident time. 7 AM is the lowest.

St. Mary's Village

St. Mary's Village Yearly Incident Totals

116	174	266	386	261
2014	2015	2016	2017	2018
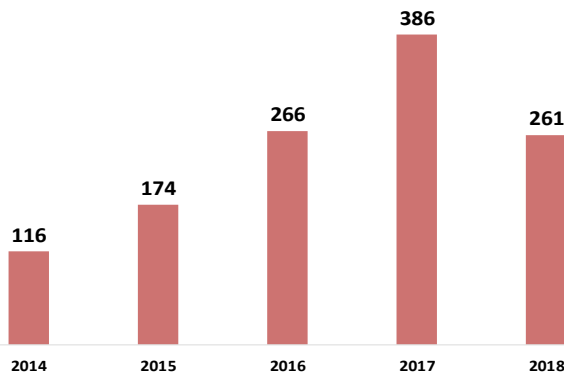
Figure 117. (Left) Incidents by year at St. Mary's Village. **Figure 118.** (Below Left) Count of response codes. **Figure 119.** (Below) Count of type of call. Incident count resulted from data acquired from CJCFPD. Data was constructed to show a single unit , responding to a single incident, on a single date.

Emergency Downgraded to Non-Emergency, 2
Canceled, 47
Not Applicable, 2
Non-Emergency, 441
Emergency, 711

Count of Incident Number by NFIRS CODE

	2014	2015	2016	2017	2018	Total
300	1		2	3	1	7
320	3	11	3	1	1	19
321	102	148	250	367	249	1,116
322					1	1
323		1	1			2
324	1		1	3		5
445	1					1
500				1		1
512	1					1
554				1		1
600				1		1
611	3	8	6	7	8	32
622			1			1
671		1				1
710		1				1
730	1					1
743	2	3		1		6
744					1	1
745	1	1	2	1		5
Total	116	174	266	386	261	1,203
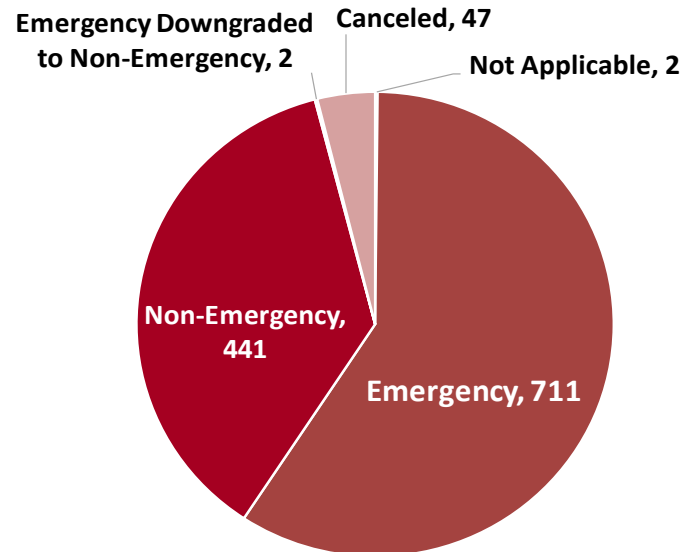
Code 300: Rescue, EMS call, other.

Code 320: EMS incident.

Code 321: EMS call. Includes calls when the patient refuses treatment.

Code 611: Canceled in route.

Time	Count
12 AM	37
1 AM	32
2 AM	30
3 AM	22
4 AM	25
5 AM	29
6 AM	34
7 AM	50
8 AM	54
9 AM	65
10 AM	67
11 AM	78
12 PM	82
1 PM	88
2 PM	58
3 PM	66
4 PM	78
5 PM	57
6 PM	48
7 PM	48
8 PM	36
9 PM	49
10 PM	37
11 PM	33

Time of Incident by Alarm Time
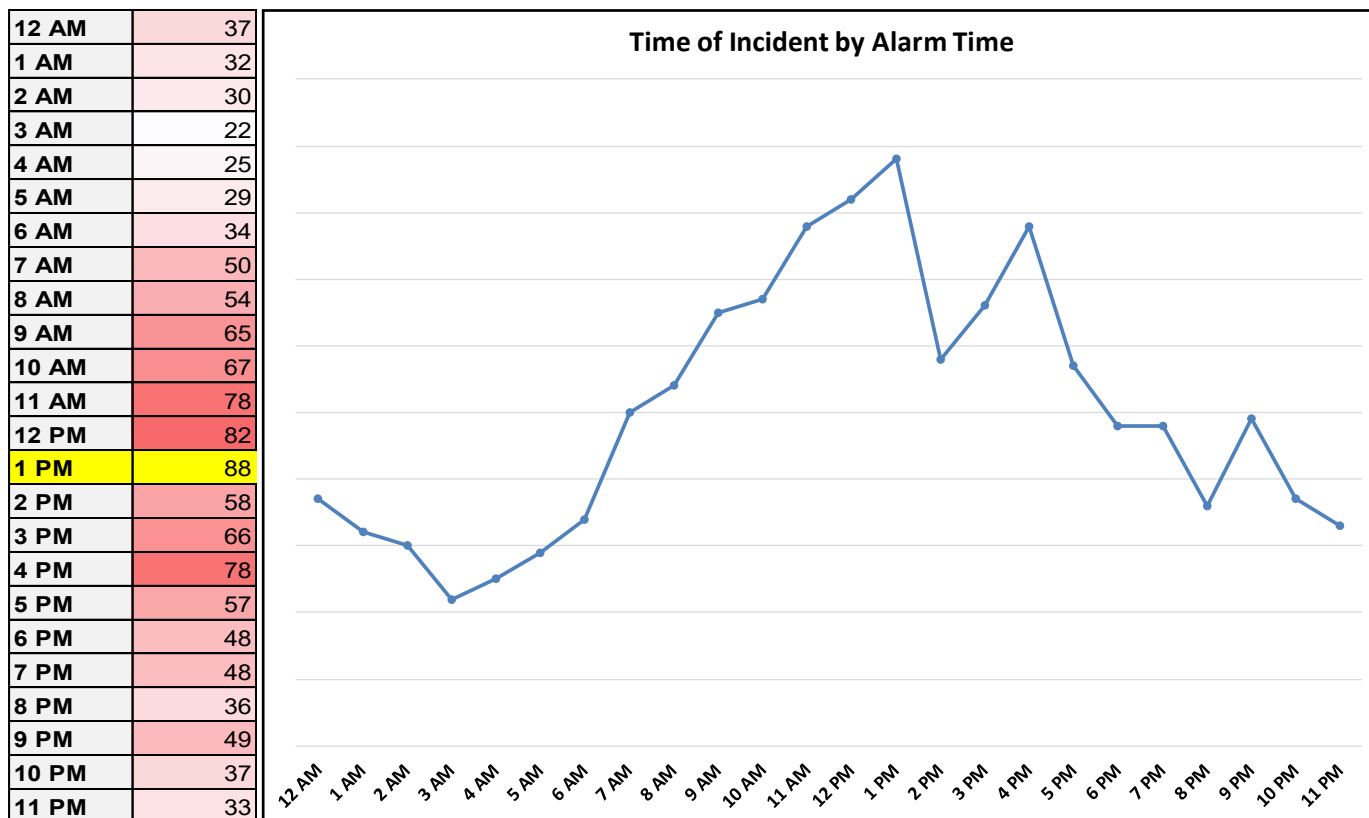
Figure 120. Time of incident by alarm time for years 2014-2018.

Response Time (Emergency Calls Only)

	2014	2015	2016	2017	2018
0 to 2 min	0	0	0	1	0
2 to 4 min	10	4	11	10	2
4 to 6 min	35	30	81	102	64
6 to 8 min	19	49	60	85	56
8 to 10 min	4	12	18	21	13
10 to 12 min	0	2	4	2	1
12 to 14 min	0	0	0	2	3
14 to 16 min	0	0	0	2	1
16 to 18 min	0	0	0	0	0
18 to 20 min	0	0	0	0	1
20 to 25 min	0	0	0	0	0
25 to 30 min	0	0	0	0	0
More than 30 min	0	0	0	0	6
Total Records	68	97	174	225	147

Units Dispatched by Year

Unit	2014	2015	2016	2017	2018	Total
C10				1		1
C3		2	1	3		6
C5				1		1
C6				1		1
C7	1		1	1		3
C8	1					1
C9	1					1
Duty					1	1
E1				1	1	2
E2	4	16	35	39	24	118
E3	96	125	207	281	213	922
E33				1		1
E4		2	7	6	1	16
E5	1	4	3	5	4	17
L1	13	18	14	23	16	84
L11	4					4
M1	23	31	46	71	33	204
M2	7	20	23	35	14	99
M3	79	107	193	272	199	850
M4		7	11	13	2	33
M5				14	17	31
M6				1		1
SQ1				17		17
Grand Total	230	332	541	785	526	2,414

Total In Service Time (Emergency Calls Only)

Year	Time
2014	38 Hours, 59 Minutes
2015	53 Hours, 19 Minutes
2016	103 Hours, 47 Minutes
2017	133 Hours, 51 Minutes
2018	102 Hours, 20 Minutes

The numbers in Figure 119 and Figure 121 don't add up because there are multiple addresses in the data for this location.

Note (Above): Not all units dispatched actually arrive at incident.

Figures 121-123. Response Time Tables and Units Dispatched by Year.

Central Jackson County Fire Protection District

St. Mary's Village

Year	2014	2015	2016	2017	2018	Grand Total
	116	174	266	386	261	1,203

Month	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Jan	12	10.3%	16	9.2%	19	7.1%	45	11.7%	25	9.6%	117	9.7%
Feb	11	9.5%	10	5.7%	20	7.5%	33	8.5%	25	9.6%	99	8.2%
Mar	14	12.1%	7	4.0%	27	10.2%	25	6.5%	18	6.9%	91	7.6%
Apr	11	9.5%	13	7.5%	25	9.4%	36	9.3%	22	8.4%	107	8.9%
May	6	5.2%	13	7.5%	26	9.8%	26	6.7%	27	10.3%	98	8.1%
Jun	8	6.9%	11	6.3%	19	7.1%	24	6.2%	18	6.9%	80	6.7%
Jul	8	6.9%	15	8.6%	30	11.3%	36	9.3%	24	9.2%	113	9.4%
Aug	8	6.9%	17	9.8%	20	7.5%	38	9.8%	22	8.4%	105	8.7%
Sep	10	8.6%	12	6.9%	18	6.8%	32	8.3%	18	6.9%	90	7.5%
Oct	8	6.9%	14	8.0%	19	7.1%	28	7.3%	20	7.7%	89	7.4%
Nov	7	6.0%	23	13.2%	12	4.5%	35	9.1%	26	10.0%	103	8.6%
Dec	13	11.2%	23	13.2%	31	11.7%	28	7.3%	16	6.1%	111	9.2%
Total	116	100.0%	174	100.0%	266	100.0%	386	100.0%	261	100.0%	1,203	100.0%

Quarter	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1st	37	31.9%	33	19.0%	66	37.9%	103	26.7%	68	26.1%	307	25.5%
2nd	25	21.6%	37	21.3%	70	40.2%	86	22.3%	67	25.7%	285	23.7%
3rd	26	22.4%	44	25.3%	68	39.1%	106	27.5%	64	24.5%	308	25.6%
4th	28	24.1%	60	34.5%	62	35.6%	91	23.6%	62	23.8%	303	25.2%
Total	116	100.0%	174	100.0%	266	100.0%	386	100.0%	261	100.0%	1,203	100.0%

Day of Week	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Sunday	12	10.3%	20	11.5%	37	13.9%	47	12.2%	41	15.7%	157	13.1%
Monday	23	19.8%	18	10.3%	32	12.0%	53	13.7%	38	14.6%	164	13.6%
Tuesday	17	14.7%	33	19.0%	37	13.9%	48	12.4%	34	13.0%	169	14.0%
Wednesday	15	12.9%	19	10.9%	33	12.4%	47	12.2%	31	11.9%	145	12.1%
Thursday	12	10.3%	28	16.1%	48	18.0%	51	13.2%	32	12.3%	171	14.2%
Friday	17	14.7%	26	14.9%	37	13.9%	64	16.6%	44	16.9%	188	15.6%
Saturday	20	17.2%	30	17.2%	42	15.8%	76	19.7%	41	15.7%	209	17.4%
Total	116	100.0%	174	100.0%	266	100.0%	386	100.0%	261	100.0%	1,203	100.0%

Time of Day	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Morning	32	27.6%	37	21.3%	56	21.1%	81	21.0%	51	19.5%	257	21.4%
Afternoon	32	27.6%	61	35.1%	101	38.0%	153	39.6%	92	35.2%	439	36.5%
Evening	34	29.3%	60	34.5%	73	27.4%	100	25.9%	86	33.0%	353	29.3%
Night	18	15.5%	16	9.2%	36	13.5%	52	13.5%	32	12.3%	154	12.8%
Total	116	100.0%	174	100.0%	266	100.0%	386	100.0%	261	100.0%	1,203	100.0%

Time of Day	
Morning	4AM-10AM
Afternoon	10AM-4PM
Evening	4PM-10PM
Night	10PM-4AM

Figures 124-129. All St. Mary's Village incidents for 2014-2018, shown by year, month, quarter, day of week and time of day, count and percentages. 2017 was the highest incident count in recent history. January was the highest month, the third quarter had the most incidents, Saturday was the busiest day, and the afternoon had the overall most.

Time	2014		2015		2016		2017		2018		Grand Total	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
12 AM	6	5.2%	3	1.7%	9	3.4%	16	4.1%	3	1.1%	37	3.1%
1 AM	4	3.4%	5	2.9%	4	1.5%	12	3.1%	7	2.7%	32	2.7%
2 AM	1	0.9%	2	1.1%	9	3.4%	6	1.6%	12	4.6%	30	2.5%
3 AM	4	3.4%	4	2.3%	5	1.9%	6	1.6%	3	1.1%	22	1.8%
4 AM	5	4.3%	4	2.3%	2	0.8%	6	1.6%	8	3.1%	25	2.1%
5 AM	3	2.6%	3	1.7%	8	3.0%	9	2.3%	6	2.3%	29	2.4%
6 AM	5	4.3%	6	3.4%	8	3.0%	12	3.1%	3	1.1%	34	2.8%
7 AM	6	5.2%	6	3.4%	10	3.8%	17	4.4%	11	4.2%	50	4.2%
8 AM	6	5.2%	8	4.6%	9	3.4%	20	5.2%	11	4.2%	54	4.5%
9 AM	7	6.0%	10	5.7%	19	7.1%	17	4.4%	12	4.6%	65	5.4%
10 AM	6	5.2%	10	5.7%	10	3.8%	29	7.5%	12	4.6%	67	5.6%
11 AM	5	4.3%	12	6.9%	19	7.1%	31	8.0%	11	4.2%	78	6.5%
12 PM	7	6.0%	13	7.5%	22	8.3%	20	5.2%	20	7.7%	82	6.8%
1 PM	7	6.0%	10	5.7%	25	9.4%	27	7.0%	19	7.3%	88	7.3%
2 PM	2	1.7%	10	5.7%	12	4.5%	18	4.7%	16	6.1%	58	4.8%
3 PM	5	4.3%	6	3.4%	13	4.9%	28	7.3%	14	5.4%	66	5.5%
4 PM	3	2.6%	13	7.5%	17	6.4%	26	6.7%	19	7.3%	78	6.5%
5 PM	7	6.0%	13	7.5%	10	3.8%	13	3.4%	14	5.4%	57	4.7%
6 PM	1	0.9%	6	3.4%	15	5.6%	13	3.4%	13	5.0%	48	4.0%
7 PM	10	8.6%	7	4.0%	9	3.4%	12	3.1%	10	3.8%	48	4.0%
8 PM	1	0.9%	6	3.4%	6	2.3%	12	3.1%	11	4.2%	36	3.0%
9 PM	7	6.0%	7	4.0%	9	3.4%	14	3.6%	12	4.6%	49	4.1%
10 PM	5	4.3%	8	4.6%	7	2.6%	10	2.6%	7	2.7%	37	3.1%
11 PM	3	2.6%	2	1.1%	9	3.4%	12	3.1%	7	2.7%	33	2.7%
Grand Total	116	100.0%	174	100.0%	266	100.0%	386	100.0%	261	100.0%	1,203	100.0%

Figure 130. Incident distribution, by hour, for CJCFPD, 2014-2018. 1 PM is the overall peak incident time. 3 AM is the lowest.

Shangri La

Shangri La Yearly Incident Totals

2014	2015	2016	2017	2018
178	154	198	176	152
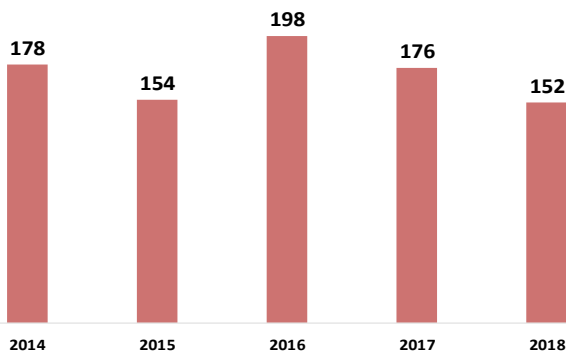
Figure 131. (Left) Incidents by year at Shangri La. Figure 132. (Below Left) Count of response codes. Figure 133. (Below) Count of type of call. Incident count resulted from data acquired from CJCFPD. Data was constructed to show a single unit , responding to a single incident, on a single date.

Count of Incident Number by NFIRS CODE

	2014	2015	2016	2017	2018	Total
251		1				1
300	2				3	5
311					1	1
320	7				1	8
321	162	149	197	172	145	825
322	1					1
412				1		1
554	1	1				2
600		1				1
611	2	2		3	1	8
700	1					1
710	1					1
735					1	1
740			1			1
743	1					1
Total	178	154	198	176	152	858
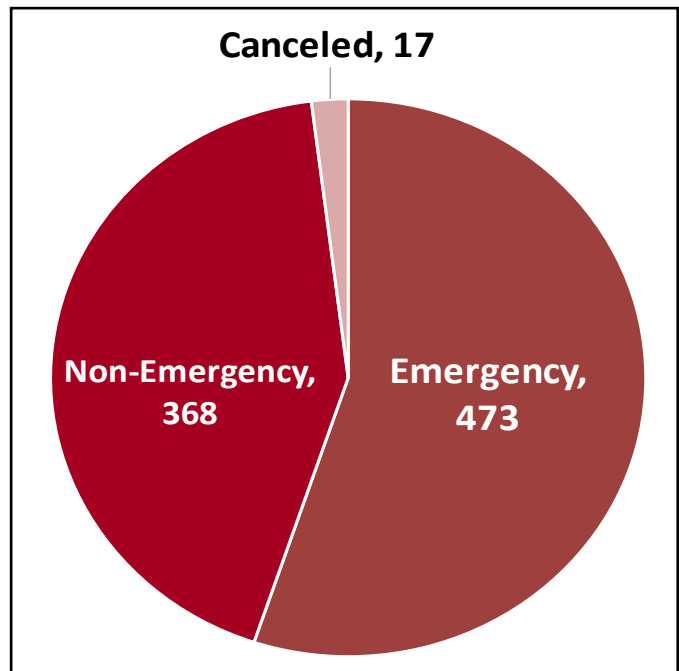
Canceled, 17

Non-Emergency, 368

Emergency, 473

Code 300: Rescue, EMS call, other.

Code 320: EMS incident.

Code 321: EMS call. Includes calls when the patient refuses treatment.

Code 611: Canceled in route.

Time	Value
12 AM	16
1 AM	15
2 AM	22
3 AM	12
4 AM	21
5 AM	22
6 AM	24
7 AM	27
8 AM	33
9 AM	44
10 AM	40
11 AM	33
12 PM	36
1 PM	39
2 PM	33
3 PM	73
4 PM	75
5 PM	67
6 PM	53
7 PM	57
8 PM	38
9 PM	32
10 PM	30
11 PM	16

Time of Incident by Alarm Time
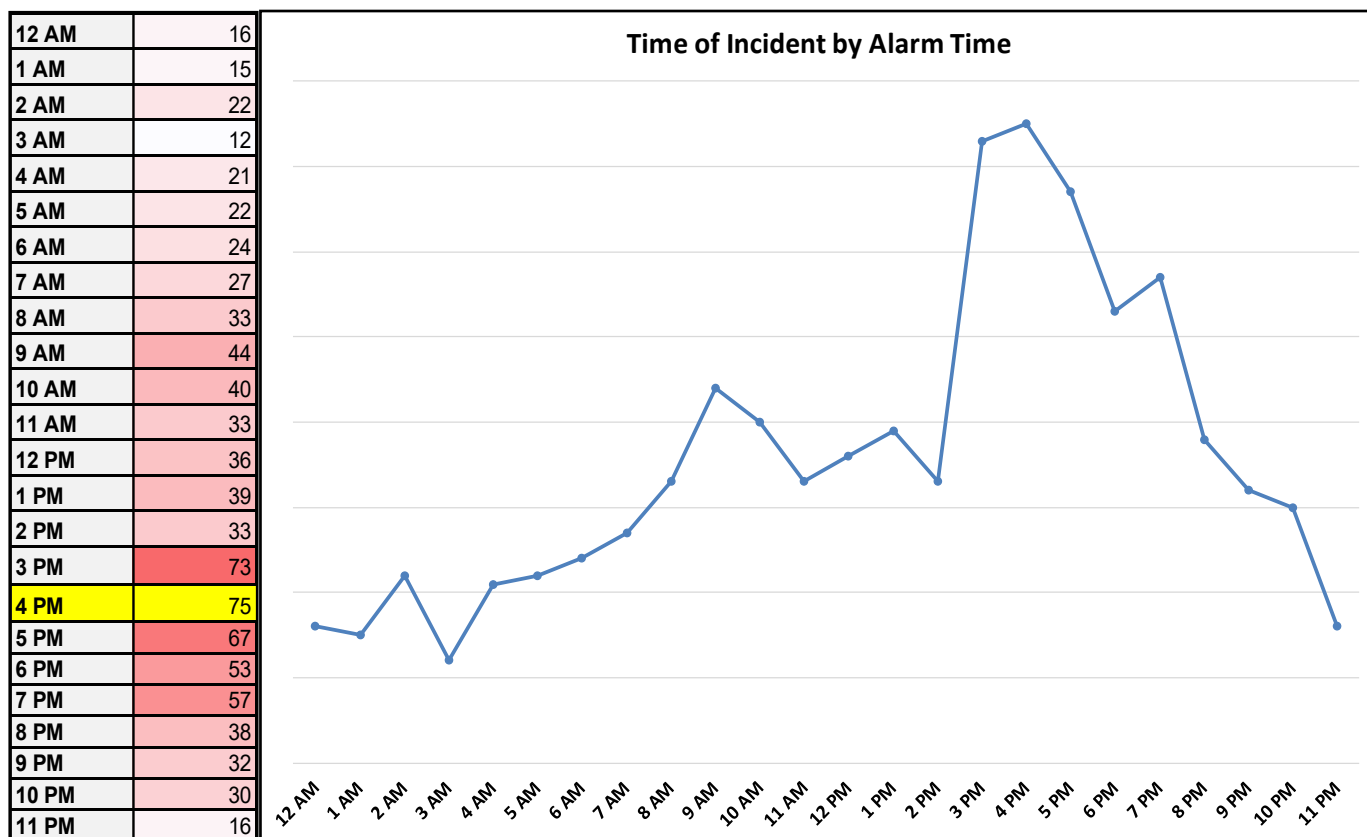
Figure 134. Time of incident by alarm time for years 2014-2018.

Response Time (Emergency Calls Only)

	2014	2015	2016	2017	2018
0 to 2 min	0	0	2	2	0
2 to 4 min	22	1	7	2	1
4 to 6 min	42	45	74	60	36
6 to 8 min	14	32	35	35	20
8 to 10 min	7	5	4	5	10
10 to 12 min	1	0	2	4	3
12 to 14 min	0	1	0	0	1
14 to 16 min	0	0	0	0	0
16 to 18 min	0	0	0	0	0
18 to 20 min	0	0	0	0	0
20 to 25 min	0	0	0	0	0
25 to 30 min	0	0	0	0	0
More than 30 min	0	0	0	0	0
Total Records	86	84	124	108	71

Units Dispatched by Year

Unit	2014	2015	2016	2017	2018	Total
C3		2				2
C5			3	1		4
C7	2					2
Duty					1	1
E2	2	2	3	6	6	19
E3	161	139	176	145	127	748
E4		1	2	3	2	8
E5	9	8	14	14	12	57
L1	3	3	4	7	7	24
M1	22	15	20	18	15	90
M2	11	10	8	8	3	40
M3	145	129	165	138	123	700
M4		1	8	6	3	18
M5	1			10	13	24
SQ1	1			4		5
Grand Total	357	310	403	360	312	1,742

Note (Above): Not all units dispatched actually arrive at incident.

Total In Service Time (Emergency Calls Only)

Year	Time
2014	53 Hours, 29 Minutes
2015	42 Hours, 51 Minutes
2016	73 Hours, 54 Minutes
2017	67 Hours, 46 Minutes
2018	52 Hours, 51 Minutes

Figures 135-137. Response Time Tables and Units Dispatched by Year.

Shangri La

Year	2014	2015	2016	2017	2018	Grand Total
	178	154	198	176	152	858

Month	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Jan	6	3.4%	17	11.0%	12	6.1%	12	6.8%	11	7.2%	58	6.8%
Feb	8	4.5%	14	9.1%	18	9.1%	25	14.2%	10	6.6%	75	8.7%
Mar	19	10.7%	11	7.1%	19	9.6%	19	10.8%	14	9.2%	82	9.6%
Apr	28	15.7%	19	12.3%	22	11.1%	10	5.7%	12	7.9%	91	10.6%
May	17	9.6%	16	10.4%	13	6.6%	11	6.3%	13	8.6%	70	8.2%
Jun	17	9.6%	8	5.2%	19	9.6%	18	10.2%	14	9.2%	76	8.9%
Jul	10	5.6%	14	9.1%	20	10.1%	16	9.1%	10	6.6%	70	8.2%
Aug	11	6.2%	8	5.2%	14	7.1%	17	9.7%	15	9.9%	65	7.6%
Sep	18	10.1%	12	7.8%	13	6.6%	8	4.5%	10	6.6%	61	7.1%
Oct	10	5.6%	14	9.1%	19	9.6%	12	6.8%	9	5.9%	64	7.5%
Nov	13	7.3%	10	6.5%	15	7.6%	9	5.1%	13	8.6%	60	7.0%
Dec	21	11.8%	11	7.1%	14	7.1%	19	10.8%	21	13.8%	86	10.0%
Total	178	100.0%	154	100.0%	198	100.0%	176	100.0%	152	100.0%	858	100.0%

Quarter	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1st	33	18.5%	42	27.3%	49	31.8%	56	31.8%	35	23.0%	215	25.1%
2nd	62	34.8%	43	27.9%	54	35.1%	39	22.2%	39	25.7%	237	27.6%
3rd	39	21.9%	34	22.1%	47	30.5%	41	23.3%	35	23.0%	196	22.8%
4th	44	24.7%	35	22.7%	48	31.2%	40	22.7%	43	28.3%	210	24.5%
Total	178	100.0%	154	100.0%	198	100.0%	176	100.0%	152	100.0%	858	100.0%

Day of Week	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Sunday	28	15.7%	25	16.2%	29	14.6%	22	12.5%	18	11.8%	122	14.2%
Monday	24	13.5%	24	15.6%	27	13.6%	25	14.2%	28	18.4%	128	14.9%
Tuesday	25	14.0%	23	14.9%	37	18.7%	30	17.0%	26	17.1%	141	16.4%
Wednesday	24	13.5%	11	7.1%	27	13.6%	24	13.6%	25	16.4%	111	12.9%
Thursday	16	9.0%	24	15.6%	28	14.1%	29	16.5%	23	15.1%	120	14.0%
Friday	25	14.0%	20	13.0%	27	13.6%	26	14.8%	23	15.1%	121	14.1%
Saturday	36	20.2%	27	17.5%	23	11.6%	20	11.4%	9	5.9%	115	13.4%
Total	178	100.0%	154	100.0%	198	100.0%	176	100.0%	152	100.0%	858	100.0%

Time of Day	2014		2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Morning	39	21.9%	29	18.8%	25	12.6%	36	20.5%	42	27.6%	171	19.9%
Afternoon	47	26.4%	44	28.6%	54	27.3%	55	31.3%	54	35.5%	254	29.6%
Evening	63	35.4%	57	37.0%	92	46.5%	67	38.1%	43	28.3%	322	37.5%
Night	29	16.3%	24	15.6%	27	13.6%	18	10.2%	13	8.6%	111	12.9%
Total	178	100.0%	154	100.0%	198	100.0%	176	100.0%	152	100.0%	858	100.0%

Time of Day
Morning 4AM-10AM
Afternoon 10AM-4PM
Evening 4PM-10PM
Night 10PM-4AM

Figures 138-143. All Shangri La incidents for 2014-2018, shown by year, month, quarter, day of week and time of day, count and percentages. 2016 was the highest incident count in recent history. April was the highest month, the second quarter had the most incidents, Tuesday was the busiest day, and the evening had the overall most.

Time	2014		2015		2016		2017		2018		Grand Total	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
12 AM	5	2.8%	5	3.2%	3	1.5%	2	1.1%	1	0.7%	16	1.9%
1 AM	6	3.4%	1	0.6%	3	1.5%	2	1.1%	3	2.0%	15	1.7%
2 AM	6	3.4%	4	2.6%	7	3.5%	2	1.1%	3	2.0%	22	2.6%
3 AM	3	1.7%	3	1.9%	3	1.5%	2	1.1%	1	0.7%	12	1.4%
4 AM	7	3.9%	2	1.3%	0	0.0%	6	3.4%	6	3.9%	21	2.4%
5 AM	4	2.2%	6	3.9%	4	2.0%	5	2.8%	3	2.0%	22	2.6%
6 AM	2	1.1%	4	2.6%	4	2.0%	7	4.0%	7	4.6%	24	2.8%
7 AM	8	4.5%	3	1.9%	4	2.0%	6	3.4%	6	3.9%	27	3.1%
8 AM	8	4.5%	6	3.9%	5	2.5%	7	4.0%	7	4.6%	33	3.8%
9 AM	10	5.6%	8	5.2%	8	4.0%	5	2.8%	13	8.6%	44	5.1%
10 AM	8	4.5%	7	4.5%	5	2.5%	9	5.1%	11	7.2%	40	4.7%
11 AM	2	1.1%	6	3.9%	6	3.0%	6	3.4%	13	8.6%	33	3.8%
12 PM	4	2.2%	6	3.9%	10	5.1%	7	4.0%	9	5.9%	36	4.2%
1 PM	6	3.4%	8	5.2%	12	6.1%	8	4.5%	5	3.3%	39	4.5%
2 PM	8	4.5%	6	3.9%	3	1.5%	12	6.8%	4	2.6%	33	3.8%
3 PM	19	10.7%	11	7.1%	18	9.1%	13	7.4%	12	7.9%	73	8.5%
4 PM	10	5.6%	16	10.4%	23	11.6%	19	10.8%	7	4.6%	75	8.7%
5 PM	16	9.0%	12	7.8%	18	9.1%	13	7.4%	8	5.3%	67	7.8%
6 PM	7	3.9%	7	4.5%	22	11.1%	11	6.3%	6	3.9%	53	6.2%
7 PM	15	8.4%	8	5.2%	13	6.6%	12	6.8%	9	5.9%	57	6.6%
8 PM	8	4.5%	6	3.9%	9	4.5%	7	4.0%	8	5.3%	38	4.4%
9 PM	7	3.9%	8	5.2%	7	3.5%	5	2.8%	5	3.3%	32	3.7%
10 PM	7	3.9%	7	4.5%	7	3.5%	6	3.4%	3	2.0%	30	3.5%
11 PM	2	1.1%	4	2.6%	4	2.0%	4	2.3%	2	1.3%	16	1.9%
Grand Total	178	100.0%	154	100.0%	198	100.0%	176	100.0%	152	100.0%	858	100.0%

Figure 144. Incident distribution, by hour, for CJCFPD, 2014-2018. 4 PM is the overall peak incident time. 3 AM is the lowest.

The Parkway

The Parkway Yearly Incident Totals
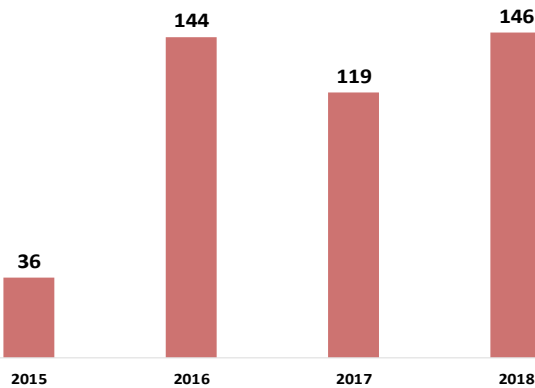
Figure 145. (Left) Incidents by year at The Parkway. **Figure 146. (Below Left)** Count of response codes. **Figure 147. (Below)** Count of type of call. Incident count resulted from data acquired from CJCFPD. Data was constructed to show a single unit , responding to a single incident, on a single date.

Count of Incident Number by NFIRS CODE

	2015	2016	2017	2018	Total
100				1	1
143		2			2
300	1		1	2	4
320	2	1		1	4
321	23	132	112	121	388
412			1		1
500			1		1
510		1	2	1	4
520		1			1
550	1			2	3
554	5	2	1	14	22
600		1			1
611	2	2		2	6
622	1				1
730	1	1	1		3
744				1	1
745		1		1	2
Total	36	144	119	146	445
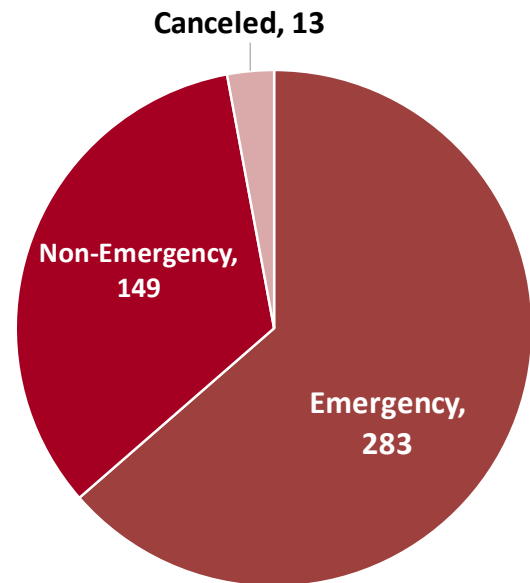
Code 300: Rescue, EMS call, other.

Code 320: EMS incident.

Code 321: EMS call. Includes calls when the patient refuses treatment.

Code 611: Canceled in route.

Time	Count
12 AM	8
1 AM	13
2 AM	10
3 AM	4
4 AM	13
5 AM	9
6 AM	18
7 AM	24
8 AM	27
9 AM	26
10 AM	20
11 AM	34
12 PM	32
1 PM	25
2 PM	22
3 PM	17
4 PM	35
5 PM	18
6 PM	20
7 PM	16
8 PM	11
9 PM	20
10 PM	15
11 PM	8

Time of Incident by Alarm Time
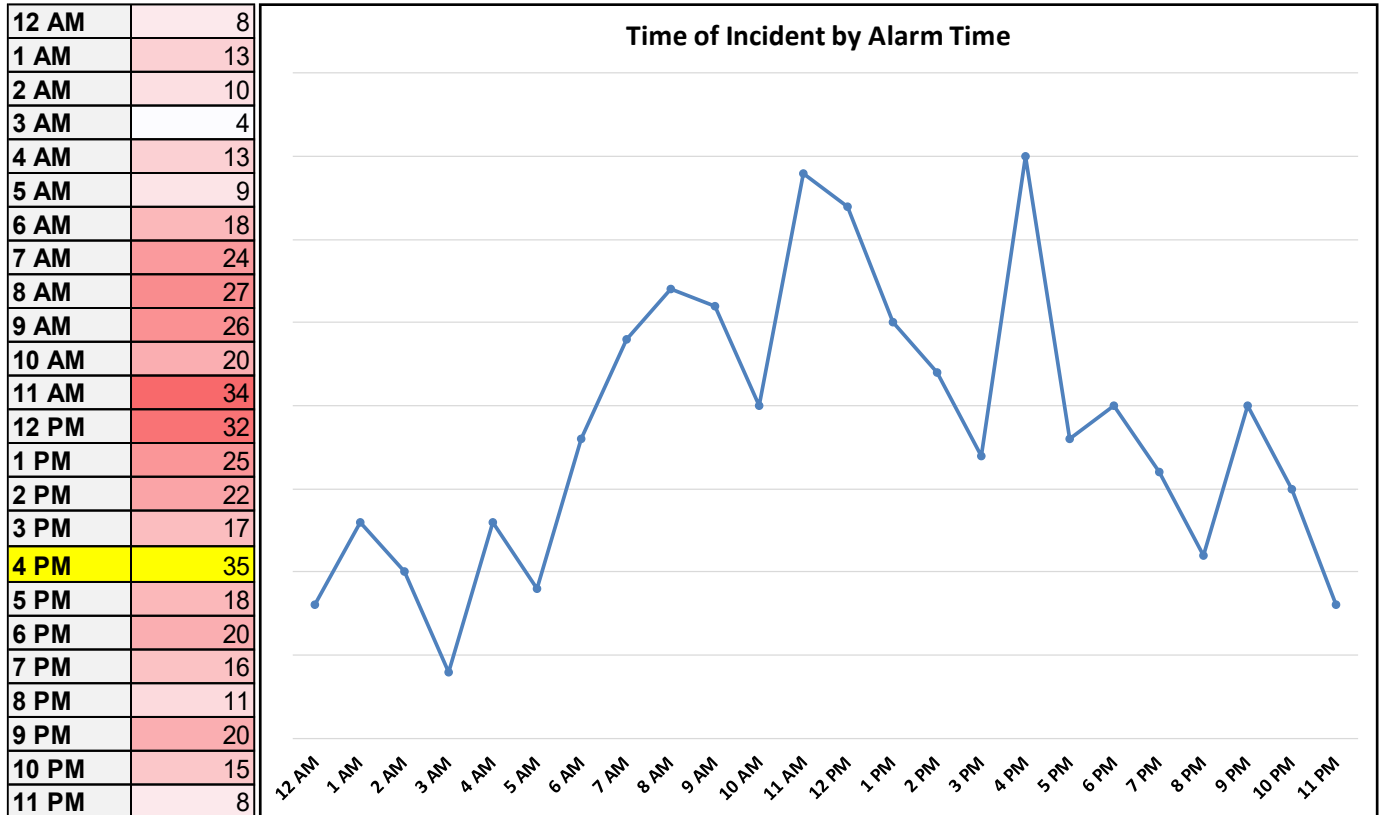
Figure 148. Time of incident by alarm time for years 2015-2018.

Response Time (Emergency Calls Only)

	2015	2016	2017	2018
0 to 2 min	0	0	0	0
2 to 4 min	0	1	5	1
4 to 6 min	5	43	32	26
6 to 8 min	12	43	32	43
8 to 10 min	2	8	7	14
10 to 12 min	0	0	3	0
12 to 14 min	0	0	1	2
14 to 16 min	0	0	1	0
16 to 18 min	0	0	0	0
18 to 20 min	0	0	0	0
20 to 25 min	0	0	0	0
25 to 30 min	0	0	0	0
More than 30 min	0	0	0	2
Total Records	19	95	81	88

Units Dispatched by Year

Unit	2015	2016	2017	2018	Total
B5		2			2
C3		1			1
C5			1		1
C7	2		1		3
E1				1	1
E2	3	5	2	4	14
E3	26	118	91	123	358
E4		2	1	1	4
E5	3	9	4	7	23
L1	4	14	15	15	48
M1	2	22	17	17	58
M2	1	8	5	3	17
M3	26	105	87	97	315
M4	1	6	1	6	14
M5			6	8	14
M6				1	1
SQ1			10		10
Grand Total	68	292	241	283	884

Note (Above): Not all units dispatched actually arrive at incident.

Total In Service Time (Emergency Calls Only)

2015	12 Hours, 2 Minutes
2016	57 Hours, 2 Minutes
2017	52 Hours, 2 Minutes
2018	61 Hours, 2 Minutes

Figures 149-151. Response Time Tables and Units Dispatched by Year.

The Parkway

Year	2015	2016	2017	2018	Grand Total
	36	144	119	146	445

Month	2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Jan	0	0.0%	8	5.6%	12	10.1%	12	8.2%	32	7.2%
Feb	0	0.0%	13	9.0%	10	8.4%	9	6.2%	32	7.2%
Mar	0	0.0%	9	6.3%	8	6.7%	12	8.2%	29	6.5%
Apr	0	0.0%	7	4.9%	8	6.7%	8	5.5%	23	5.2%
May	0	0.0%	12	8.3%	9	7.6%	12	8.2%	33	7.4%
Jun	0	0.0%	12	8.3%	4	3.4%	8	5.5%	24	5.4%
Jul	1	2.8%	16	11.1%	10	8.4%	14	9.6%	41	9.2%
Aug	5	13.9%	20	13.9%	11	9.2%	16	11.0%	52	11.7%
Sep	6	16.7%	15	10.4%	13	10.9%	19	13.0%	53	11.9%
Oct	7	19.4%	10	6.9%	12	10.1%	11	7.5%	40	9.0%
Nov	8	22.2%	12	8.3%	14	11.8%	6	4.1%	40	9.0%
Dec	9	25.0%	10	6.9%	8	6.7%	19	13.0%	46	10.3%
Total	36	100.0%	144	100.0%	119	100.0%	146	100.0%	445	100.0%

Quarter	2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1st	0	0.0%	30	83.3%	30	25.2%	33	22.6%	93	20.9%
2nd	0	0.0%	31	86.1%	21	17.6%	28	19.2%	80	18.0%
3rd	12	33.3%	51	141.7%	34	28.6%	49	33.6%	146	32.8%
4th	24	66.7%	32	88.9%	34	28.6%	36	24.7%	126	28.3%
Total	36	100.0%	144	100.0%	119	100.0%	146	100.0%	445	100.0%

Day of Week	2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Sunday	6	16.7%	26	18.1%	20	16.8%	18	12.3%	70	15.7%
Monday	6	16.7%	26	18.1%	11	9.2%	17	11.6%	60	13.5%
Tuesday	2	5.6%	20	13.9%	20	16.8%	28	19.2%	70	15.7%
Wednesday	8	22.2%	12	8.3%	18	15.1%	23	15.8%	61	13.7%
Thursday	3	8.3%	21	14.6%	17	14.3%	20	13.7%	61	13.7%
Friday	5	13.9%	21	14.6%	18	15.1%	24	16.4%	68	15.3%
Saturday	6	16.7%	18	12.5%	15	12.6%	16	11.0%	55	12.4%
Total	36	100.0%	144	100.0%	119	100.0%	146	100.0%	445	100.0%

Time of Day	2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Morning	12	33.3%	28	19.4%	36	30.3%	41	28.1%	117	26.3%
Afternoon	15	41.7%	51	35.4%	30	25.2%	54	37.0%	150	33.7%
Evening	3	8.3%	50	34.7%	33	27.7%	34	23.3%	120	27.0%
Night	6	16.7%	15	10.4%	20	16.8%	17	11.6%	58	13.0%
Total	36	100.0%	144	100.0%	119	100.0%	146	100.0%	445	100.0%

Time of Day	
Morning	4AM-10AM
Afternoon	10AM-4PM
Evening	4PM-10PM
Night	10PM-4AM

Figures 152-157. All Parkway incidents for 2015-2018, shown by year, month, quarter, day of week and time of day, count and percentages. 2018 was the highest incident count in recent history. September was the highest month, the third quarter had the most incidents, Sunday and Tuesday were the busiest days, and the afternoon had the overall most.

Demographic and Service Analysis

Time	2015 Number	2015 Percent	2016 Number	2016 Percent	2017 Number	2017 Percent	2018 Number	2018 Percent	Grand Total	Percent
12 AM	1	2.8%	1	0.7%	5	4.2%	1	0.7%	8	1.8%
1 AM	1	2.8%	4	2.8%	4	3.4%	4	2.7%	13	2.9%
2 AM	2	5.6%	3	2.1%	3	2.5%	2	1.4%	10	2.2%
3 AM	0	0.0%	0	0.0%	0	0.0%	4	2.7%	4	0.9%
4 AM	2	5.6%	1	0.7%	6	5.0%	4	2.7%	13	2.9%
5 AM	1	2.8%	4	2.8%	2	1.7%	2	1.4%	9	2.0%
6 AM	4	11.1%	4	2.8%	4	3.4%	6	4.1%	18	4.0%
7 AM	1	2.8%	2	1.4%	10	8.4%	11	7.5%	24	5.4%
8 AM	3	8.3%	10	6.9%	4	3.4%	10	6.8%	27	6.1%
9 AM	1	2.8%	7	4.9%	10	8.4%	8	5.5%	26	5.8%
10 AM	2	5.6%	8	5.6%	3	2.5%	7	4.8%	20	4.5%
11 AM	4	11.1%	11	7.6%	9	7.6%	10	6.8%	34	7.6%
12 PM	3	8.3%	10	6.9%	5	4.2%	14	9.6%	32	7.2%
1 PM	3	8.3%	12	8.3%	3	2.5%	7	4.8%	25	5.6%
2 PM	3	8.3%	4	2.8%	5	4.2%	10	6.8%	22	4.9%
3 PM	0	0.0%	6	4.2%	5	4.2%	6	4.1%	17	3.8%
4 PM	2	5.6%	15	10.4%	7	5.9%	11	7.5%	35	7.9%
5 PM	0	0.0%	7	4.9%	4	3.4%	7	4.8%	18	4.0%
6 PM	0	0.0%	11	7.6%	6	5.0%	3	2.1%	20	4.5%
7 PM	0	0.0%	4	2.8%	6	5.0%	6	4.1%	16	3.6%
8 PM	0	0.0%	4	2.8%	6	5.0%	1	0.7%	11	2.5%
9 PM	1	2.8%	9	6.3%	4	3.4%	6	4.1%	20	4.5%
10 PM	1	2.8%	5	3.5%	6	5.0%	3	2.1%	15	3.4%
11 PM	1	2.8%	2	1.4%	2	1.7%	3	2.1%	8	1.8%
Grand Total	36	100.0%	144	100.0%	119	100.0%	146	100.0%	445	100.0%

Figure 158. Incident distribution, by hour, for CJCFPD, 2015-2018. 4 PM is the overall peak incident time. 3 AM is the lowest.

Central Jackson County Fire Protection District

Benton House

Benton House Yearly Incident Totals

	2015	2016	2017	2018
	37	72	99	127
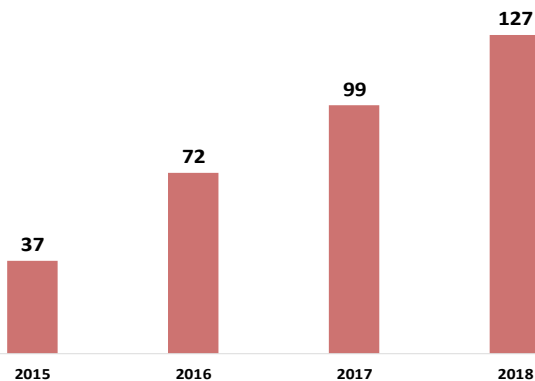
Figure 159. (Left) Incidents by year at Benton House. Figure 160. (Below Left) Count of response codes. Figure 161. (Below) Count of type of call. Incident count resulted from data acquired from CJCFPD. Data was constructed to show a single unit , responding to a single incident, on a single date.

Count of Incident Number by NFIRS CODE

	2015	2016	2017	2018	Total
100				1	1
251			1		1
300	1	1		1	3
311				2	2
320	1		1		2
321	31	68	94	120	313
322		1			1
440	1				1
442	1			1	2
445		1			1
460	1				1
611	1		1		2
651		1			1
700				1	1
730			1		1
745			1	1	2
Total	37	72	99	127	335
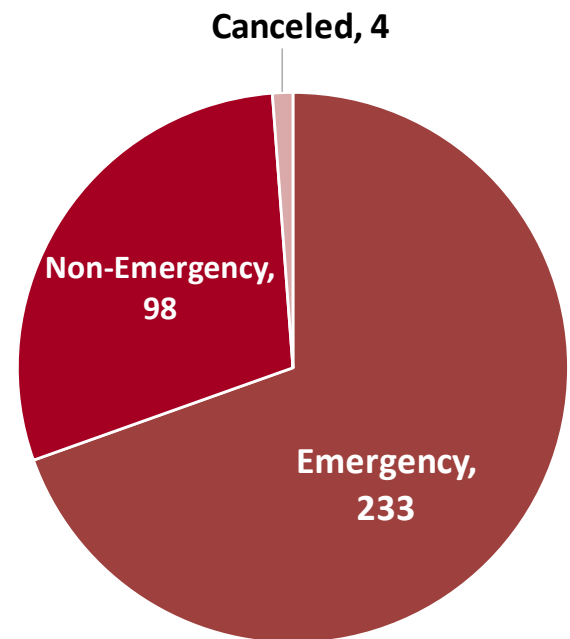
Canceled, 4
Non-Emergency, 98
Emergency, 233

Code 300: Rescue, EMS call, other.

Code 320: EMS incident.

Code 321: EMS call. Includes calls when the patient refuses treatment.

Code 611: Canceled in route.

Time	Count
12 AM	6
1 AM	7
2 AM	8
3 AM	5
4 AM	11
5 AM	7
6 AM	9
7 AM	19
8 AM	17
9 AM	18
10 AM	26
11 AM	19
12 PM	23
1 PM	12
2 PM	24
3 PM	23
4 PM	22
5 PM	9
6 PM	10
7 PM	12
8 PM	15
9 PM	9
10 PM	15
11 PM	9

Time of Incident by Alarm Time
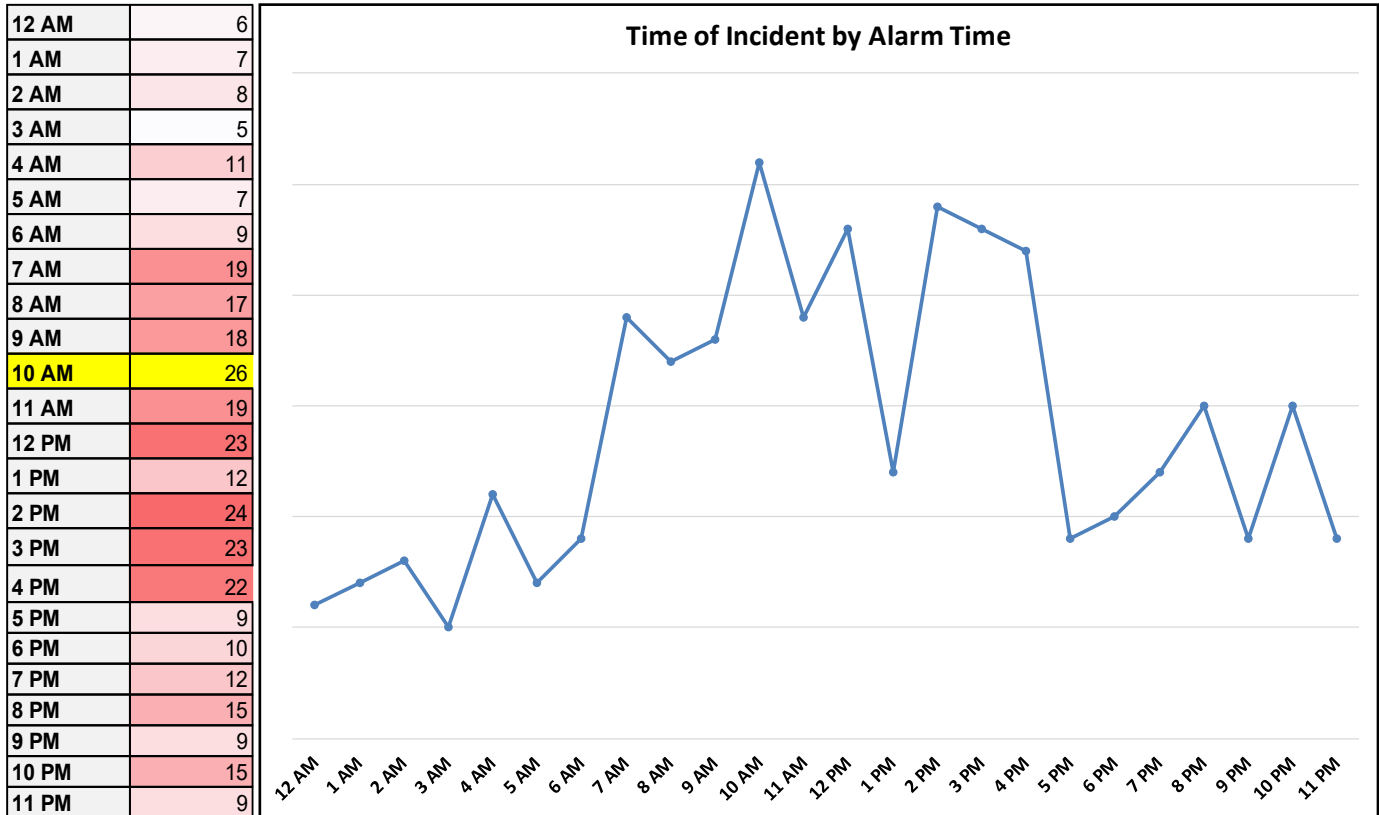
Figure 162. Time of incident by alarm time for years 2015-2018.

Response Time (Emergency Calls Only)

	2015	2016	2017	2018
0 to 2 min	0	0	0	0
2 to 4 min	0	0	1	0
4 to 6 min	2	7	5	10
6 to 8 min	11	29	34	53
8 to 10 min	8	18	18	27
10 to 12 min	1	2	2	2
12 to 14 min	0	0	1	2
14 to 16 min	0	0	0	0
16 to 18 min	0	0	0	0
18 to 20 min	0	0	0	0
20 to 25 min	0	0	0	0
25 to 30 min	0	0	0	0
More than 30 min	0	0	0	0
Total Records	22	56	61	94

Units Dispatched by Year

Unit	2015	2016	2017	2018	Total
2				1	1
C3		1	1		2
C5		1			1
C7			1		1
Duty				2	2
E2	29	63	83	102	277
E3	8	12	14	28	62
E4	1	1	2	2	6
E5	2		1	3	6
L1	3	5	3	5	16
M1	2	2	6	7	17
M2	26	61	81	100	268
M3	6	11	18	20	55
M4	1	2		1	4
M5			1	3	4
SQ1			1		1
Grand Total	78	159	212	274	723

Note (Above): Not all units dispatched actually arrive at incident.

Total In Service Time (Emergency Calls Only)

Year	Time
2015	17 Hours, 22 Minutes
2016	39 Hours, 17 Minutes
2017	40 Hours, 32 Minutes
2018	41 Hours, 24 Minutes

Figures 163-165. Response Time Tables and Units Dispatched by Year.

Central Jackson County Fire Protection District

Benton House

Year	2015	2016	2017	2018	Grand Total
	37	72	99	127	335

Month	2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Jan	0	0.0%	6	8.3%	8	8.1%	11	8.7%	25	7.5%
Feb	0	0.0%	3	4.2%	7	7.1%	7	5.5%	17	5.1%
Mar	1	2.7%	6	8.3%	3	3.0%	17	13.4%	27	8.1%
Apr	0	0.0%	9	12.5%	8	8.1%	10	7.9%	27	8.1%
May	0	0.0%	4	5.6%	6	6.1%	11	8.7%	21	6.3%
Jun	0	0.0%	6	8.3%	3	3.0%	5	3.9%	14	4.2%
Jul	1	2.7%	10	13.9%	7	7.1%	9	7.1%	27	8.1%
Aug	7	18.9%	4	5.6%	6	6.1%	11	8.7%	28	8.4%
Sep	1	2.7%	8	11.1%	16	16.2%	6	4.7%	31	9.3%
Oct	7	18.9%	5	6.9%	10	10.1%	11	8.7%	33	9.9%
Nov	12	32.4%	6	8.3%	13	13.1%	12	9.4%	43	12.8%
Dec	8	21.6%	5	6.9%	12	12.1%	17	13.4%	42	12.5%
Total	37	100.0%	72	100.0%	99	100.0%	127	100.0%	335	100.0%

Quarter	2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1st	1	2.7%	15	40.5%	18	18.2%	35	27.6%	69	20.6%
2nd	0	0.0%	19	51.4%	17	17.2%	26	20.5%	62	18.5%
3rd	9	24.3%	22	59.5%	29	29.3%	26	20.5%	86	25.7%
4th	27	73.0%	16	43.2%	35	35.4%	40	31.5%	118	35.2%
Total	37	100.0%	72	100.0%	99	100.0%	127	100.0%	335	100.0%

Day of Week	2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Sunday	3	8.1%	11	15.3%	13	13.1%	13	10.2%	40	11.9%
Monday	4	10.8%	12	16.7%	5	5.1%	13	10.2%	34	10.1%
Tuesday	5	13.5%	14	19.4%	18	18.2%	21	16.5%	58	17.3%
Wednesday	4	10.8%	11	15.3%	18	18.2%	11	8.7%	44	13.1%
Thursday	11	29.7%	9	12.5%	6	6.1%	23	18.1%	49	14.6%
Friday	6	16.2%	9	12.5%	18	18.2%	21	16.5%	54	16.1%
Saturday	4	10.8%	6	8.3%	21	21.2%	25	19.7%	56	16.7%
Total	37	100.0%	72	100.0%	99	100.0%	127	100.0%	335	100.0%

Time of Day	2015		2016		2017		2018		Grand Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Morning	9	24.3%	14	19.4%	23	23.2%	35	27.6%	81	24.2%
Afternoon	11	29.7%	28	38.9%	36	36.4%	52	40.9%	127	37.9%
Evening	7	18.9%	16	22.2%	30	30.3%	24	18.9%	77	23.0%
Night	10	27.0%	14	19.4%	10	10.1%	16	12.6%	50	14.9%
Total	37	100.0%	72	100.0%	99	100.0%	127	100.0%	335	100.0%

Time of Day	
Morning	4AM-10AM
Afternoon	10AM-4PM
Evening	4PM-10PM
Night	10PM-4AM

Figures 166-171. All Benton House incidents for 2015-2018, shown by year, month, quarter, day of week and time of day, count and percentages. 2018 was the highest incident count in recent history. November was the highest month, the fourth quarter had the most incidents, Tuesday was the busiest day, and the afternoon had the overall most.

Page 108

Time	2015		2016		2017		2018		Grand Total	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
12 AM	1	2.7%	1	1.4%	1	1.0%	3	2.4%	6	1.8%
1 AM	2	5.4%	2	2.8%	1	1.0%	2	1.6%	7	2.1%
2 AM	3	8.1%	3	4.2%	1	1.0%	1	0.8%	8	2.4%
3 AM	1	2.7%	1	1.4%	2	2.0%	1	0.8%	5	1.5%
4 AM	0	0.0%	3	4.2%	5	5.1%	3	2.4%	11	3.3%
5 AM	0	0.0%	1	1.4%	1	1.0%	5	3.9%	7	2.1%
6 AM	2	5.4%	1	1.4%	2	2.0%	4	3.1%	9	2.7%
7 AM	0	0.0%	3	4.2%	5	5.1%	11	8.7%	19	5.7%
8 AM	6	16.2%	3	4.2%	3	3.0%	5	3.9%	17	5.1%
9 AM	1	2.7%	3	4.2%	7	7.1%	7	5.5%	18	5.4%
10 AM	4	10.8%	5	6.9%	3	3.0%	14	11.0%	26	7.8%
11 AM	0	0.0%	5	6.9%	5	5.1%	9	7.1%	19	5.7%
12 PM	2	5.4%	5	6.9%	8	8.1%	8	6.3%	23	6.9%
1 PM	0	0.0%	3	4.2%	6	6.1%	3	2.4%	12	3.6%
2 PM	2	5.4%	4	5.6%	10	10.1%	8	6.3%	24	7.2%
3 PM	3	8.1%	6	8.3%	4	4.0%	10	7.9%	23	6.9%
4 PM	4	10.8%	3	4.2%	11	11.1%	4	3.1%	22	6.6%
5 PM	0	0.0%	2	2.8%	4	4.0%	3	2.4%	9	2.7%
6 PM	2	5.4%	1	1.4%	4	4.0%	3	2.4%	10	3.0%
7 PM	0	0.0%	2	2.8%	2	2.0%	8	6.3%	12	3.6%
8 PM	1	2.7%	6	8.3%	7	7.1%	1	0.8%	15	4.5%
9 PM	0	0.0%	2	2.8%	2	2.0%	5	3.9%	9	2.7%
10 PM	3	8.1%	4	5.6%	3	3.0%	5	3.9%	15	4.5%
11 PM	0	0.0%	3	4.2%	2	2.0%	4	3.1%	9	2.7%
Grand Total	37	100.0%	72	100.0%	99	100.0%	127	100.0%	335	100.0%

Figure 172. Incident distribution, by hour, for CJCFPD, 2015-2018. 10 AM is the overall peak incident time. 3 AM is the lowest.

PAGE DELIBERATELY LEFT BLANK

CJCFPD Facilities and Equipment Detailed Analysis

Central Jackson County Fire Protection District

Overview of District Facilities and Equipment

Training Center	4715 US 40 Hwy Blue Springs, Missouri

Station #1	1000 W. US 40 Hwy Blue Springs, Missouri Built in 1970

Station 1 Dispatches

Unit	2014	2015	2016	2017	2018	Total
L-1	1,656	1,733	1,872	1,865	1,926	9,052
M-1	2,057	1,759	1,832	1,711	1,667	9,026

Station #2	3417 NW Kingsridge Dr. Blue Springs, MO 64015 Built in 1985

Station 2 Dispatches

Unit	2014	2015	2016	2017	2018	Total
E-2	1,146	1,427	1,454	1,607	1,465	7,099
M-2	1,458	1,480	1,333	1,200	1,126	6,597

Station #3	805 NE Jefferson St. Blue Springs, MO 64015

Station 3 Dispatches

Unit	2014	2015	2016	2017	2018	Total
E-3	1,870	2,210	2,247	2,429	2,376	11,132
M-3	1,885	1,789	1,854	1,824	1,737	9,089

Station #4	700 SW Eagles Pkwy Grain Valley, MO 64029 Built in 1996

Station 4 Dispatches

Unit	2014	2015	2016	2017	2018	Total
E-4	1,072	1,098	1,194	1,213	1,320	5,897
M-4	28	842	1,468	1,105	1,074	4,517
B-4	43	14	4	1	31	93
T-4	22	20	15	13	33	103

Station #5	2790 SE Adam's Dairy Pkwy Blue Springs, MO 64014 Built in 2004

Station 5 Dispatches

Unit	2014	2015	2016	2017	2018	Total
E-5	733	836	889	939	1,048	4,445
M-5	1	3	4	927	1,147	2,082
B-5	66	9	21	20	79	195
T-5	17	5	6	13	24	65

Comparison of CJCFPD with other fire departments

2018				
	CJCFPD	**OFALLON**	**OLATHE**	**LEE'S SUMMIT**
District Area Sq Miles	52	67	62.6	65.87
Estimated Population	71,187	85,000	141,116	98,469
Population Density	1,369	1,269	2,254	1,495
Number of Fire Stations	5	5	8	7
Apparatus	11	11	11	13
Total Incidents	7,819	5,396	12,628	10,688
Fire Incidents	197	183	288	2,144
EMS Incidents	5,790	3,213	8,485	7,400
Non-Fire Incidents	218	473	3,855	1,174
Property Tax Rate	1.1566	0.9144	24.406	$8.95
Total Revenues	$18,649,165	$13,171,355	$21,689,328	0
Total Expenses	$18,439,981	$9,826,412	$21,689,328	$18,343,050
Fire loss	$1,426,245	$6,847,967	$3,749,246	$956,395
Property Saved	$9,131,415	$158,583,123	$141,878,579	$26,351,057
Property Protected	$10,557,661	$165,431,090	$145,627,825	NA
Percent Saved	86.49%	95.90%	97.00%	96.37%
Firefighters on duty (daily)	25	21	28	35
Total Firefighters	108	63	141	139
Training Hours (Total)	14,070	13,418	21,592	33,638
Training Hours (per Firefighter)	123.4	200	167	246
Building Inspections	703	1,690	16,073	2,241
Fees Collected from Building Inspections	$0	$91,566	$6,627,245	0
Survival Percentage of Cardiac Arrest Patients	42.9%	NA	69.0%	57
Smoke Detectors Installed	43	3,045	NA	192
People trained in CPR	102	179	2,000	499

Figure 173. Comparison between the CJCFPD and the O'Fallon, Missouri , Lee's Summit, and Olathe, Kansas fire protection districts. When the CJCFPD is compared with two similar departments, a couple of factors leap out. For one, Olathe has a population twice that of CJCFD, but only 61 percent more incidents. Secondly, Olathe has made building inspections a way to generate about one-third of their revenues, when their building codes administration department for the city was incorporated into the fire department organization. Also, Olathe and O'Fallon both have higher populations than CJCFPD, but the same number of apparatus. O'Fallon has significantly fewer total firefighters with total expenses of about half that of CJCFPD. Lee's Summit has almost the identical level of expenses, but more than 30 firefighters more than CJCFPD, and two more apparatus units, and serve a population of more than 25,000 persons. As a note, Olathe does not run ambulances.

Central Jackson County Fire Protection District

Station #1

Ladder 1 Response Time

	2014	2015	2016	2017	2018
0 to 2 min	8	5	13	3	7
2 to 4 min	86	46	53	62	57
4 to 6 min	387	309	315	348	280
6 to 8 min	245	352	346	299	309
8 to 10 min	98	148	142	129	131
10 to 12 min	27	41	45	37	31
12 to 14 min	9	8	13	6	14
14 to 16 min	7	3	4	6	3
16 to 18 min	4	4	3	1	2
18 to 20 min	2	1	1	2	1
20 to 25 min	0	0	0	0	0
25 to 30 min	0	0	0	0	0
More than 30 min	0	0	0	0	0
Total Records	873	917	935	893	835

M-1 Response Time

	2014	2015	2016	2017	2018
0 to 2 min	10	3	10	5	2
2 to 4 min	116	46	71	83	79
4 to 6 min	389	302	292	339	323
6 to 8 min	343	359	396	313	314
8 to 10 min	230	194	218	148	149
10 to 12 min	123	87	65	52	43
12 to 14 min	52	30	23	16	26
14 to 16 min	23	14	7	8	10
16 to 18 min	12	6	9	6	5
18 to 20 min	11	3	2	2	5
20 to 25 min	0	0	0	0	0
25 to 30 min	0	0	0	0	0
More than 30 min	0	0	0	0	0
Total Records	1,309	1,044	1,093	972	956

Station 1 Dispatches

UNIT	2014	2015	2016	2017	2018	Total
L-1	1,656	1,733	1,872	1,865	1,926	9,052
M-1	2,057	1,759	1,832	1,711	1,667	9,026

Figure 174. (Top Right) Response time table for Ladder 1.
Figure 175. (Bottom Right) Response time table for M-1.

Station #2

E-2 Response Time					
	2014	2015	2016	2017	2018
0 to 2 min	6	8	2	3	1
2 to 4 min	75	39	36	44	35
4 to 6 min	199	189	184	212	189
6 to 8 min	208	271	264	293	299
8 to 10 min	77	138	146	146	140
10 to 12 min	30	45	42	49	44
12 to 14 min	13	19	16	15	13
14 to 16 min	4	4	8	3	5
16 to 18 min	3	4	4	1	3
18 to 20 min	4	5	0	2	2
20 to 25 min	0	0	0	0	0
25 to 30 min	0	0	0	0	0
More than 30 min	0	1	0	0	0
Total Records	619	723	702	768	731

M-2 Response Time					
	2014	2015	2016	2017	2018
0 to 2 min	5	4	5	6	3
2 to 4 min	68	39	23	34	38
4 to 6 min	176	160	160	173	209
6 to 8 min	183	193	227	246	283
8 to 10 min	99	138	121	122	115
10 to 12 min	45	46	55	33	41
12 to 14 min	26	22	27	17	18
14 to 16 min	12	10	15	4	9
16 to 18 min	11	6	9	4	4
18 to 20 min	5	2	4	3	4
20 to 25 min	0	0	0	0	0
25 to 30 min	0	0	0	0	0
More than 30 min	0	0	0	0	0
Total Records	630	620	646	642	724

Station 2 Dispatches						
UNIT	2014	2015	2016	2017	2018	Total
E-2	1,146	1,427	1,454	1,607	1,465	7,099
M-2	1,458	1,480	1,333	1,200	1,126	6,597

Figure 176. (Top Left) Response time table for E-2.
Figure 177. (Bottom Left) Response time table for M-2.

Station #3

E-3 Response Time					
	2014	2015	2016	2017	2018
0 to 2 min	7	4	1	7	6
2 to 4 min	69	21	23	32	36
4 to 6 min	320	250	324	299	335
6 to 8 min	312	423	451	424	501
8 to 10 min	116	222	251	218	256
10 to 12 min	42	52	55	72	63
12 to 14 min	17	26	14	17	29
14 to 16 min	14	5	7	9	10
16 to 18 min	7	2	1	3	3
18 to 20 min	5	3	2	0	3
20 to 25 min	0	0	0	0	0
25 to 30 min	0	0	0	0	0
More than 30 min	0	0	0	0	0
Total Records	909	1,008	1,129	1,081	1,242

M-3 Response Time					
	2014	2015	2016	2017	2018
0 to 2 min	3	2	3	4	3
2 to 4 min	40	19	26	28	26
4 to 6 min	291	199	319	290	347
6 to 8 min	354	391	397	377	428
8 to 10 min	204	203	217	200	192
10 to 12 min	90	70	66	75	56
12 to 14 min	46	38	31	28	26
14 to 16 min	20	16	19	7	17
16 to 18 min	12	7	7	6	6
18 to 20 min	9	5	4	3	2
20 to 25 min	0	0	0	0	0
25 to 30 min	0	0	0	0	0
More than 30 min	0	0	0	0	0
Total Records	1,069	950	1,089	1,018	1,103

Station 3 Dispatches						
UNIT	2014	2015	2016	2017	2018	Total
E-3	1,870	2,210	2,247	2,429	2,376	11,132
M-3	1,885	1,789	1,854	1,824	1,737	9,089

Figure 178. (Top Right) Response time table for E-3.
Figure 179. (Bottom Right) Response time table for M-3.

Station #4

E-4 Response Time					
	2014	2015	2016	2017	2018
0 to 2 min	6	3	5	1	2
2 to 4 min	50	20	37	36	27
4 to 6 min	169	134	152	148	181
6 to 8 min	220	183	201	234	236
8 to 10 min	92	111	91	124	156
10 to 12 min	32	39	39	37	57
12 to 14 min	28	14	14	16	21
14 to 16 min	4	6	4	5	11
16 to 18 min	5	5	1	2	11
18 to 20 min	2	4	3	1	4
20 to 25 min	0	0	0	0	0
25 to 30 min	0	0	0	0	0
More than 30 min	0	0	0	0	0
Total Records	608	519	547	604	706

M-4 Response Time					
	2014	2015	2016	2017	2018
0 to 2 min	0	2	3	1	2
2 to 4 min	0	18	19	18	27
4 to 6 min	6	98	128	129	165
6 to 8 min	4	141	145	169	206
8 to 10 min	5	69	84	95	126
10 to 12 min	0	37	32	28	63
12 to 14 min	2	10	21	18	26
14 to 16 min	0	6	9	5	13
16 to 18 min	1	1	4	3	12
18 to 20 min	0	5	2	0	11
20 to 25 min	0	0	0	0	0
25 to 30 min	0	0	0	0	0
More than 30 min	0	0	0	0	0
Total Records	18	387	447	466	651

Station 4 Dispatches						
UNIT	2014	2015	2016	2017	2018	Total
E-4	1,072	1,098	1,194	1,213	1,320	5,897
M-4	28	842	1,468	1,105	1,074	4,517

Figure 180. (Top Left) Response time table for E-4.
Figure 181. (Bottom Left) Response time table for M-4.

Station #5

E-5 Response Time					
	2014	2015	2016	2017	2018
0 to 2 min	3	1	2	2	6
2 to 4 min	19	5	16	11	18
4 to 6 min	98	96	100	89	86
6 to 8 min	101	126	129	146	164
8 to 10 min	73	83	82	92	129
10 to 12 min	30	32	29	29	46
12 to 14 min	10	12	15	11	16
14 to 16 min	5	6	2	2	7
16 to 18 min	2	3	2	4	7
18 to 20 min	1	0	1	1	0
20 to 25 min	0	0	0	0	0
25 to 30 min	0	0	0	0	0
More than 30 min	0	0	0	0	0
Total Records	342	364	378	387	479

M-5 Response Time					
	2014	2015	2016	2017	2018
0 to 2 min	0	0	0	1	6
2 to 4 min	0	0	0	8	11
4 to 6 min	0	1	0	55	89
6 to 8 min	0	0	0	79	141
8 to 10 min	0	1	1	59	94
10 to 12 min	0	1	0	18	44
12 to 14 min	0	0	0	9	13
14 to 16 min	0	0	0	3	2
16 to 18 min	0	0	1	1	6
18 to 20 min	0	0	0	0	3
20 to 25 min	0	0	0	0	0
25 to 30 min	0	0	0	0	0
More than 30 min	0	0	0	0	0
Total Records	0	3	2	233	409

Station 5 Dispatches						
UNIT	2014	2015	2016	2017	2018	Total
E-5	733	836	889	939	1,048	4,445
M-5	1	3	4	927	1,147	2,082

Figure 182. (Top Right) Response time table for E-5.
Figure 183. (Bottom Right) Response time table for M-5.

PAGE DELIBERATELY LEFT BLANK

Central Jackson County Fire Protection District

Total Dispatch Count by Unit and by Year:

B-VEHICLES	2014	2015	2016	2017	2018	Total
B-4	43	14	4	1	31	93
B-5	66	9	21	20	79	195

C-VEHICLES	2014	2015	2016	2017	2018	Total
C2	16	6		1		23
C3	141	161	174	142		618
C4	26		2	1		29
C5, C6, C7, Duty	347	313	353	350	328	1,691
C8	24		5	1		30
C9	154	17	5	5		181
C10	7	37	28	50		122

E-VEHICLES	2014	2015	2016	2017	2018	Total
E-2	1,146	1,427	1,454	1,607	1,465	7,099
E-3	1,870	2,210	2,247	2,429	2,376	11,132
E-4	1,072	1,098	1,194	1,213	1,320	5,897
E-5	733	836	889	939	1,048	4,445
E-22	14	2			1	17
E-33				4		4

L-VEHICLES	2014	2015	2016	2017	2018	Total
L-1	1,656	1,733	1,872	1,865	1,926	9,052
L-11	28	1	1	2	1	33

M-VEHICLES	2014	2015	2016	2017	2018	Total
M-1	2,057	1,759	1,832	1,711	1,667	9,026
M-2	1,458	1,480	1,333	1,200	1,126	6,597
M-3	1,885	1,789	1,854	1,824	1,737	9,089
M-4	28	842	1,468	1,105	1,074	4,517
M-5	1	3	4	927	1,147	2,082
M-6				1	4	5

T-VEHICELS	2014	2015	2016	2017	2018	Total
T-4	22	20	15	13	33	103
T-5	17	5	6	13	24	65

Figure 184. Total dispatch count by unit and year at the CJCFPD, as of 2018.

Total Dispatch Count by Unit and by Year:

CARES VEHICLES	2014	2015	2016	2017	2018	Total
CARES and CARES1			8	6	8	22

MISCELLANEOUS	2014	2015	2016	2017	2018	Total
AIR/LIGHT AND BOAT	1					1
CAGE	1					1
COMM 1						
COMM2						
E1				10	5	15
HR1		1				1
HAZMAT1			2	1		3
SQ1	178		1	99	3	281
S8	2	2	6	1	1	12
I1					2	2
uty2					1	1
PRV1	5	4	1	2		12
PRV2	4		1			5
PRV3	4		3	4		11
PRV4	1					1

Totals	2014	2015	2016	2017	2018	Grand Total
Grand Total	13,007	13,769	14,783	15,542	15,403	72,504

Data acquired from file "2019 demo export APP"

Figure 184 (con't). Total dispatch count by unit and year at the CJCFPD, as of 2018.

OUR CORE VALUES

Integrity—We tell the truth even when it isn't popular. Our word is our bond and we will do what we say.

Hard Work—It is an honor to serve your fire department. We will work hard to earn and keep your trust.

Quality—Our demographic studies have more data, more information and more analysis than is produced by any other firm in the country.

Innovation—We are always trying to find new ways to gather and present better information.

Accountability—We realize that your administrators rely on our data for staff hiring, station construction and long-range planning. If we are wrong, the decisions made can cost taxpayers millions of dollars. That is why we take our responsibility for providing the most accurate information possible very seriously.

Business Information Services, LLC is a Missouri-registered Limited Liability Corporation, owned by Preston Smith of Blue Springs, Missouri.

Smith has an undergraduate journalism degree from the University of Missouri and a Master's in Public Administration from the University of Missouri-Kansas City, with a specialization in statistics and quantitative analysis. Certified GIS analyst Sarah Rose developed the maps and the geospatial analysis for this study. Data analyst Jason Smith prepared the tables, charts, graphs and initial report structure.

Smith consults with school districts around the country and has prepared more than 200 demographic analysis studies for school districts and completed 300 total projects for school districts.

Preston Smith, pvsmith@sbcglobal.net 816-224-3498

www.businessinformationservices.biz