

ROGERS | Research Center

2021 WI Fire and EMS Mental Health Survey - Analysis

Prepared for Professional Fire Fighters of Wisconsin Charitable Foundation

OVERVIEW

In consultation with Rogers Behavioral Health, PFFW Charitable Foundation developed a 40-question survey which was made accessible to all professional and volunteer Fire and EMS professionals across the state of Wisconsin from October 13, 2021, to December 31, 2021. Full-time and volunteer firefighters and EMS responders completed this survey designed to provide insights on job-related critical stress and associated behavioral health needs. The survey included limited demographic information (race, ethnicity, gender, years of service) and inquired about critical incidents or traumatic events on the job, thoughts of self-harm, sleep issues, substance use, engagement with department or municipal support services, and perception of mental health stigma in the field. A brief psychological screening tool for depression, anxiety, and general psychological distress—the PHQ-4—was also included.

Upon closing the survey, a total of 1022 individuals responded (an increase from 777 respondents year over year). Further respondent delineation follows:

Employment status:

	All	Men	Women
Full-time	592 (57.9%)	541 (91.4%)	51 (8.6%)
Part-time	93 (9.1%)	60 (64.5%)	33 (35.5%)
Retired	25 (2.4%)	20 (80.0%)	5 (20.0%)
Volunteer	312 (30.5%)	220 (70.5%)	92 (29.5%)

Primary department type:

	All	Men	Women
Municipal	951 (93.1%)	796 (83.7%)	155 (16.3%)
Private	71 (6.9%)	45 (63.4%)	26 (36.6%)

Services provided:

	All	Men	Women
EMS	132 (12.9%)	48 (36.4%)	84 (63.6%)
Fire	122 (11.9%)	112 (91.8%)	10 (8.2%)
Fire and EMS	768 (75.1%)	681 (88.7%)	87 (11.3%)

Services provided by employment type:

	Full-time	Part-time	Retired	Volunteer
EMS	42 (7.1%)	23 (24.7%)	2 (8.0%)	65 (20.8%)
Fire	14 (2.4%)	14 (15.1%)	0 (0.0%)	94 (30.1%)
Fire and EMS	536 (90.5%)	56 (60.2%)	23 (92.0%)	153 (49.0%)

Fire rank:

	All	Men	Women
Chief officer	185 (20.8%*)	177 (95.7%)	8 (4.3%)
Driver	108 (12.1%)	103 (95.4%)	5 (4.6%)
Firefighter	387 (43.5%)	316 (81.7%)	71 (18.3%)
Line officer	210 (23.6%)	197 (93.8%)	13 (6.2%)

*Out of 890 who responded to this question

EMS level:

	All	Men	Women
Critical care paramedic	51 (5.7%*)	38 (74.5%)	13 (25.5%)
EMT advanced	90 (10.0%)	58 (64.4%)	32 (35.6%)
EMT basic	302 (33.6%)	231 (76.5%)	71 (23.5%)
First responder	118 (13.1%)	96 (81.4%)	22 (18.6%)
Paramedic	339 (37.7%)	306 (90.3%)	33 (9.7%)

*Out of 900 who responded to this question

Years of service:

	All	Men	Women
2 years or less	83 (8.1%)	51 (61.4%)	32 (38.6%)
2-5 years	122 (11.9%)	73 (59.8%)	49 (40.2%)
5-10 years	165 (16.1%)	127 (77.0%)	38 (23.0%)
10-15 years	146 (14.3%)	129 (88.4%)	17 (11.6%)
15-20 years	136 (13.3%)	121 (89.0%)	15 (11.0%)
20-25 years	168 (16.4%)	153 (91.1%)	15 (8.9%)
More than 25 years	202 (19.8%)	187 (92.6%)	15 (7.4%)

Race and ethnicity:

American Indian or Alaskan Native	6 (0.6%)
Asian	2 (0.2%)
Black or African American	7 (0.7%)
Hispanic, Latino or Spanish	20 (2.0%)
Multiracial	19 (1.9%)
White	968 (94.7%)

Responses by county with 20 responses or more:

Brown	74 (7.2%)	Racine	41 (4.0%)
Dane	91 (8.9%)	Rock	23 (2.3%)
Dodge	20 (2.0%)	Sauk	30 (2.9%)
Kenosha	40 (3.9%)	St. Croix	23 (2.3%)
Marathon	52 (5.1%)	Waukesha	87 (8.5%)
Milwaukee	77 (7.5%)	Winnebago	104 (10.2%)
Outagamie	43 (4.2%)	Wood	24 (2.3%)

Summary of respondents experiencing job-related critical stress:

Of the 1022 respondents, 935 (91.5%) indicated they had experienced a job-related critical incident or traumatic event. In 2020, out of 777 respondents, 726 respondents (93.4%) answered yes to this question.

Of the 935 respondents in 2021 who indicated they had experienced job-related critical stress, 178 respondents (24.5%) reported having nightmares about the events or unwanted thoughts about the events within the last month, and 337 respondents (46.4%) reported having nightmares or unwanted thoughts of the event in the last year. 287 respondents (39.5%) reported that, in the last year, trying hard not to think about the event(s) or went out of their way to avoid situations that reminded them of the event; 164 respondents (22.6%) reported this was true of the last month. The following tables provide breakouts of the complications experienced as the result of job-related critical stress:

By Employment Status:

	All	Full-time	Part-time	Volunteer	NBC National Survey*
Total Respondents	1022	592	93	312	6,962
Respondents that experienced a critical incident or traumatic event	935 (91.5%)	564 (95.3%)	80 (86.0%)	266 (85.3%)	6,598 (94.2%)
Change in view of job or future	387 (41.4%)	271 (48.0%)	22 (27.5%)	81 (30.5%)	2,685 (49.4%)
Sleep problems	510 (54.5%)	341 (60.5%)	39 (48.8%)	16 (6.0%)	3,867 (71.1%)
Family or relationship problems	339 (36.3%)	239 (42.4%)	19 (23.8%)	73 (27.4%)	3,211 (59.1%)**
Thoughts of suicide or self-harm	124 (13.3%)	73 (12.9%)	14 (17.5%)	30 (11.3%)	1,046 (19.2%)**
Substance abuse	137 (14.7%)	102 (18.1%)	7 (8.8%)	22 (8.3%)	1,451 (26.7%)**
Easily angered or withdrawn	472 (50.5%)	326 (57.8%)	32 (40.0%)	102 (38.3%)	3,597 (66.2%)
None of the above	285 (30.5%)	117 (20.7%)	32 (40.0%)	130 (48.9%)	

*<https://www.nbcnewyork.com/news/local/firefighters-mental-health-survey-ptsd/1809>

**Statistically significant – PFFW survey respondents reported these challenges significantly less than the national average

Percentages reported with a shaded background are based on all responses; percentages reported with a white background are based on only the respondents who indicated they had experienced job-related critical stress.

By Department Type:

	All	Municipal	Private
Total Respondents	1022	951	71
Respondents that experienced a critical incident or traumatic event	935 (91.5%)	873 (91.8%)	62 (87.3%)
Change in view of job or future	387 (41.4%)	356 (40.8%)	31 (50.0%)
Sleep problems	510 (54.5%)	469 (53.7%)	41 (66.1%)
Family or relationship problems	339 (36.3%)	309 (35.4%)	30 (48.4%)
Thoughts of suicide or self-harm	124 (13.3%)	108 (12.4%)	16 (25.8%)
Substance abuse	137 (14.7%)	127 (14.5%)	10 (16.1%)
Easily angered or withdrawn	472 (50.5%)	434 (49.7%)	38 (61.3%)
None of the above	285 (30.5%)	265 (30.4%)	20 (32.3%)

Percentages reported with a shaded background are based on all responses; percentages reported with a white background are based on only the respondents who indicated they had experienced job-related critical stress.

By Gender:

	All	Female	Male
Total Respondents	1022	181	841
Respondents that experienced a critical incident or traumatic event	935 (91.5%)	145 (80.1%)	790 (93.9%)
Change in view of job or future	387 (41.4%)	58 (40.0%)	329 (41.6%)
Sleep problems	510 (54.5%)	79 (54.5%)	431 (54.6%)
Family or relationship problems	339 (36.3%)	46 (31.7%)	293 (37.1%)
Thoughts of suicide or self-harm	124 (13.3%)	28 (19.3%)	96 (12.2%)
Substance abuse	137 (14.7%)	13 (9.0%)	124 (15.7%)
Easily angered or withdrawn	472 (50.5%)	62 (42.8%)	410 (51.9%)
None of the above	285 (30.5%)	57 (39.3%)	228 (28.9%)

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By Years of Service:

	All	2 years or less	2-5 years	5-10 years	10-15 years	15-20 years	20-25 years	25+ years
Total Respondents	1022	83	122	165	146	136	168	202
Respondents that experienced a critical incident or traumatic event	935 (91.5%)	52 (62.7%)	105 (86.1%)	153 (92.7%)	138 (94.5%)	130 (95.6%)	163 (97.0%)	194 (96.0%)
Change in view of job or future	387 (41.4%)	17 (32.7%)	36 (34.3%)	60 (39.2%)	61 (44.2%)	54 (41.5%)	85 (52.1%)	74 (38.1%)
Sleep problems	510 (54.5%)	23 (44.2%)	44 (41.9%)	79 (51.6%)	75 (54.3%)	83 (63.8%)	101 (62.0%)	105 (54.1%)
Family or relationship problems	339 (36.3%)	13 (25.0%)	34 (32.4%)	47 (30.7%)	50 (36.2%)	58 (44.6%)	72 (44.2%)	65 (33.5%)
Thoughts of suicide or self-harm	124 (13.3%)	9 (17.3%)	15 (14.3%)	18 (11.8%)	22 (15.9%)	15 (11.5%)	20 (12.3%)	25 (12.9%)
Substance abuse	137 (14.7%)	6 (11.5%)	8 (7.6%)	24 (15.7%)	21 (15.2%)	19 (14.6%)	32 (19.6%)	27 (13.9%)
Easily angered or withdrawn	472 (50.5%)	14 (26.9%)	44 (41.9%)	82 (53.6%)	73 (52.9%)	80 (61.5%)	103 (63.2%)	76 (39.2%)
None of the above	285 (30.5%)	39 (75.0%)	44 (41.9%)	46 (30.1%)	35 (25.4%)	26 (20.0%)	32 (19.6%)	63 (32.5%)

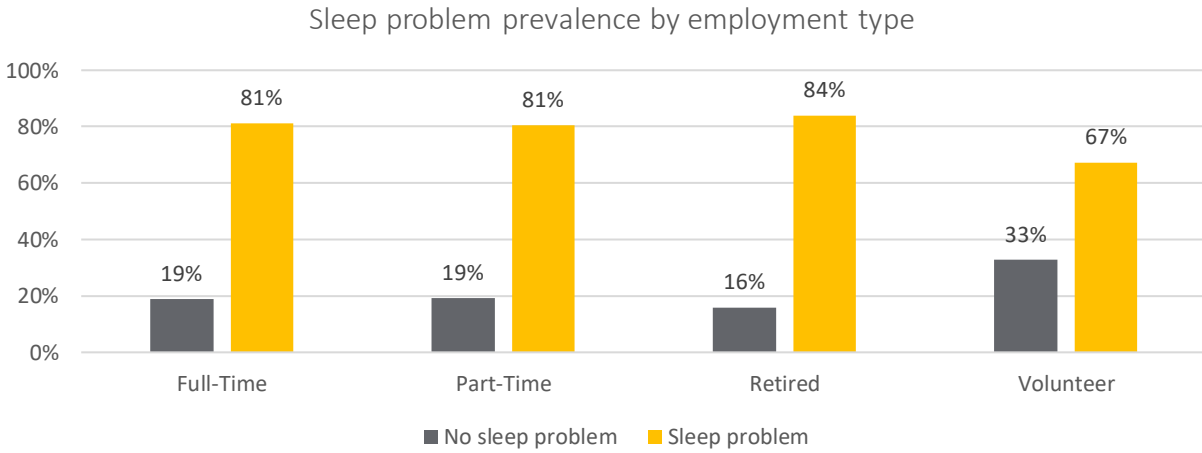
Percentages reported with a shaded background are based on all responses; percentages reported with a white background are based on only the respondents who indicated they had experienced job-related critical stress.

By Services Provided:

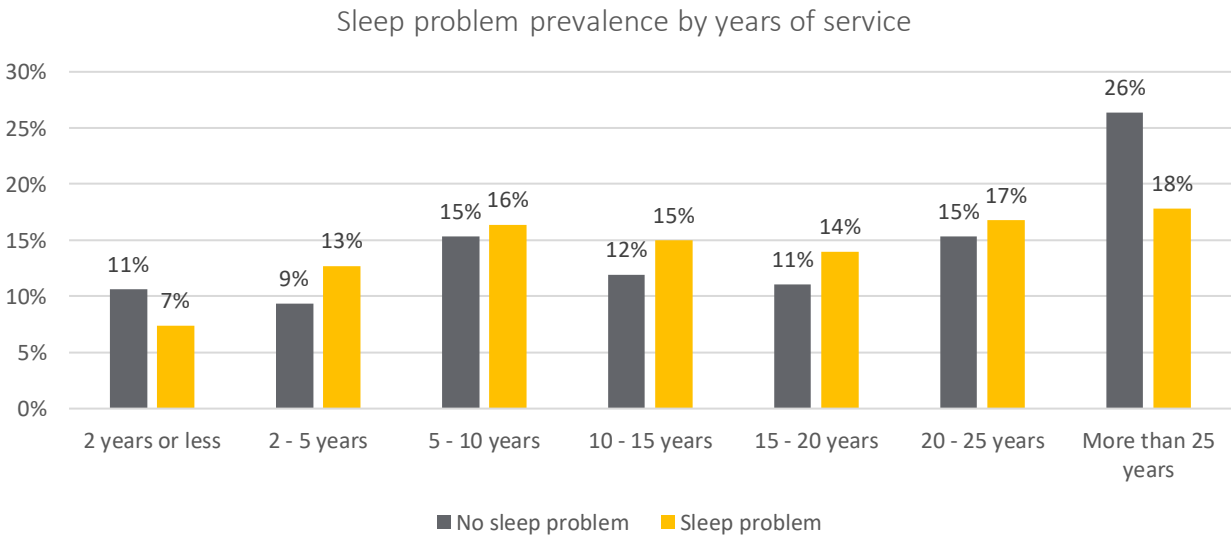
	All	Fire	EMS	Fire and EMS
Total Respondents	1022	122	132	768
Respondents that experienced a critical incident or traumatic event	935 (91.5%)	105 (86.1%)	109 (82.6%)	721 (93.9%)
Change in view of job or future	387 (41.4%)	29 (27.6%)	53 (48.6%)	305 (42.3%)
Sleep problems	510 (54.5%)	39 (37.1%)	68 (62.4%)	403 (55.9%)
Family or relationship problems	339 (36.3%)	31 (29.5%)	42 (38.5%)	266 (36.9%)
Thoughts of suicide or self-harm	124 (13.3%)	9 (8.6%)	27 (24.8%)	88 (12.2%)
Substance abuse	137 (14.7%)	9 (8.6%)	16 (14.7%)	112 (15.5%)
Easily angered or withdrawn	472 (50.5%)	40 (38.1%)	57 (52.3%)	375 (52.0%)
None of the above	285 (30.5%)	58 (55.2%)	32 (29.4%)	195 (27.0%)

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Sleep problems:

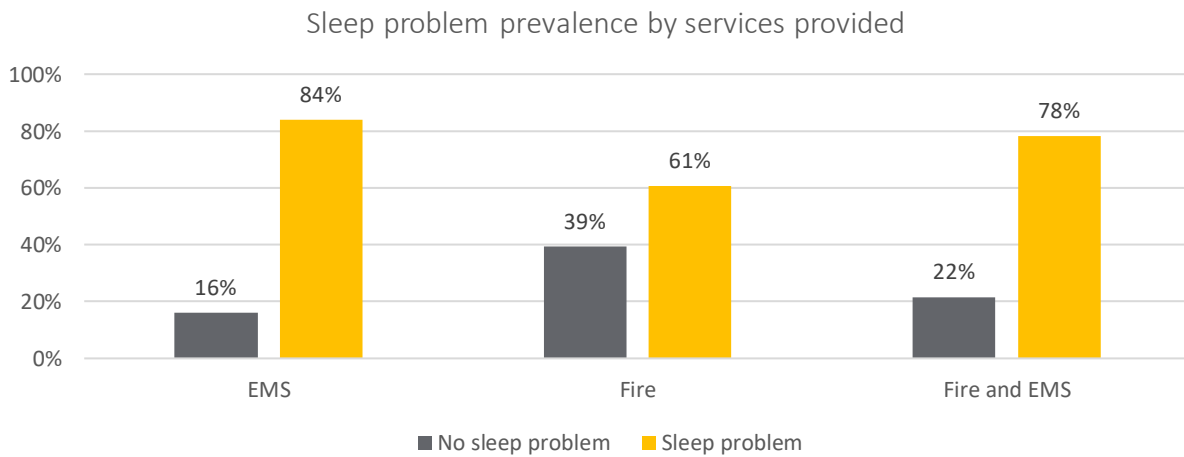


* Almost half of all Americans say they feel sleepy during the day between 3 and 7 days per week. Startingsleeping.org reports that 45% of Americans claim that poor sleep has impacted their daily life at least once in the last 7 days. These numbers, **while not equivalent to the PFFW survey questions**, provide context in comparison to the average American.



481 (81.3%) of the 592 full-time firefighters; 75 (80.6%) of the 93 part-time firefighters; and 210 (67.3%) of the 312 volunteer firefighters all reported at least one sleep problem. Percent indicates the percent of responders of that employment type (e.g., full-time, part-time, volunteer).

	Full-time	Part-time	Volunteer
All respondents	592	93	312
Difficulty falling asleep	281 (47.5%*)	47 (50.5%)	124 (39.7%)
Not feeling rested after a night's sleep	424 (71.6%)	63 (67.7%)	169 (54.2%)
Difficulty staying awake	102 (17.2%)	21 (22.6%)	43 (13.8%)
Use of alcohol or illegal substances to fall asleep	160 (27.0%)	22 (23.7%)	53 (17.0%)
Multiple sleep problems	307 (51.9%)	47 (50.5%)	123 (39.4%)
No sleep problems	96 (16.2%)	15 (16.1%)	96 (30.8%)



	EMS	Fire	Fire and EMS
All respondents	132	122	768
Difficulty falling asleep	78 (59.1%)	45 (36.9%)	341 (44.4%)
Not feeling rested after a night's sleep	96 (72.7%)	56 (45.9%)	522 (68.0%)
Difficulty staying awake	25 (18.9%)	16 (13.1%)	133 (17.3%)
Use of alcohol or illegal substances to fall asleep	50 (37.9%)	14 (11.5%)	181 (23.6%)
Multiple sleep problems	83 (62.9%)	41 (33.6%)	367 (47.8%)
No sleep problems	18 (13.6%)	42 (34.4%)	149 (19.4%)

Of the 126 (21.3%) full-time firefighters who screened positive for anxiety, depression, or both, 121 respondents also reported at least one sleep problem.

	Anxiety only	Depression only	Anxiety and depression
Difficulty falling asleep	74 (12.5%)*	18 (3.0%)	92 (15.5%)
Not feeling rested after a night's sleep	90 (15.2%)	23 (3.9%)	113 (19.1%)
Difficulty staying awake	31 (5.2%)	12 (2.0%)	43 (7.3%)
Use of alcohol or illegal substances to fall asleep	45 (7.6%)	11 (1.9%)	56 (9.5%)
Multiple sleep problems	80 (13.5%)	22 (3.7%)	102 (17.2%)
No sleep problems	5 (0.8%)	0 (0.0%)	5 (0.8%)

*Percent denotes out of 592 full-time firefighters

Of the individuals who reported the use of alcohol or illegal substances to fall asleep, the majority reported having more than one sleep problem.

	Of the 245 who reported using alcohol or illegal substances to fall asleep
Difficulty falling asleep	174 (71.0%)
Not feeling rested after a night's sleep	207 (84.5%)
Difficulty staying awake	79 (32.2%)
Multiple sleep problems	229 (93.5%)

Anxiety and depression screening (PHQ-4)

The PHQ-4 is a 4-question screening that assesses respondents for anxiety and depression symptoms as well as approximate degree of psychological stress.

Of the total 1022 responses, 169 (16.5%*) screened positive for **anxiety** symptoms, and 151 (14.8%) screened positive for **depression** symptoms. Of the 592 full-time firefighters, 102 (17.2%) screened positive for **anxiety** symptoms, and 84 (14.2%) screened positive for **depression** symptoms.

Of the 592 full-time responses, 21.3% screened positive for both anxiety and depression.

	Percent of respondents with anxiety symptoms	Percent of respondents with depression symptoms
All respondents (includes EMS)	169 (16.5%)*	151 (14.8%)
Full-time firefighters	102 (17.2%)**	84 (14.2%)
Men	91 (15.4%)	76 (12.8%)
Women	11 (1.9%)	8 (1.4%)

*The Anxiety and Depression Association of America estimates 18.1% of adults in the U.S. have anxiety and 6.7% of adults in the U.S. have depression at some point every year.

** Of 592 full-time firefighters

Trauma screening (PC-PTSD-5)

The Primary Care PTSD Screen for DSM-5 (PC-PTSD-5) is a 5-item assessment designed to identify people with probable PTSD. Individuals who screen positive are recommended for further, formal assessment.

Of the total 1022 responses, 217 (21.2%*) screened positive for **probable PTSD in the last year**, and 129 (12.6%) screened positive **in the last month** prior to the survey.

	Percent of respondents with probable PTSD within the last year	Percent of respondents with probable PTSD within the last month
All respondents (includes EMS)	217 (21.2%)*	129 (12.6%)
Full-time	129 (21.8%)**	80 (13.5%)
Men	118 (91.5%)	72 (90.0%)
Women	11 (8.5%)	8 (10.0%)

*The National Institute on Mental Health estimates 3.6% of U.S. adults had PTSD in the last year.

** Of 592 full-time firefighters

Of the 129 respondents who screened positive for probable PTSD in the last month, 58.9% screened positive for anxiety symptoms in the two weeks prior to the PFFW survey. 55.0% of the 129 respondents who screened positive for probable PTSD in the last month also screened positive for depression symptoms in the two weeks prior to the survey.

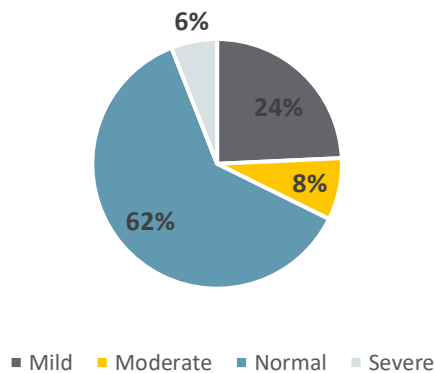
	Percent of respondents who reported co-occurring anxiety and probable PTSD symptoms within the last month	Percent of respondents who reported co-occurring depression and probable PTSD symptoms within the last month
All respondents (includes EMS)	76 (58.9%)*	71 (55.0%)
Full-time	48 (37.2%)	43 (33.3%)
Men	41 (31.8%)	38 (29.5%)
Women	7 (5.4%)	5 (3.9%)

*Of the 129 who screened positive for probable PTSD within the last month.

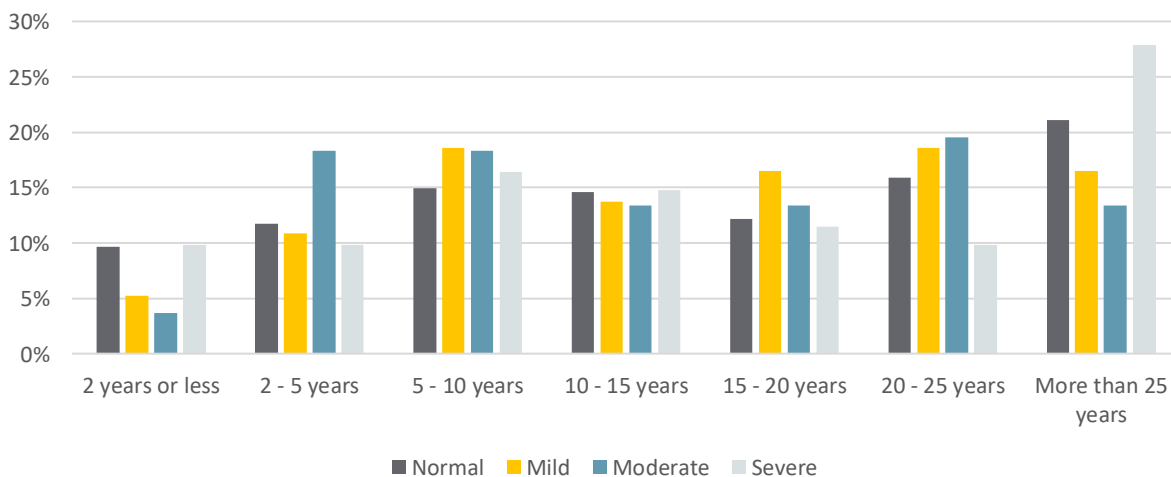
Distress and Stigma:

Overall psychological stress is measured on the PHQ-4 with ranges of distress: “None” (0-2), “Mild” (3-5), “Moderate” (6-8), and “Severe” (9-12), where a higher score denotes a greater degree of psychological stress. Out of the 592 full-time firefighters, 369 (62.3%) were considered to have no psychological distress; 141 (23.8%) were considered to have mild psychological distress; 44 (7.4%) were considered to have moderate psychological distress; and 38 (6.4%) were deemed to have severe psychological distress.

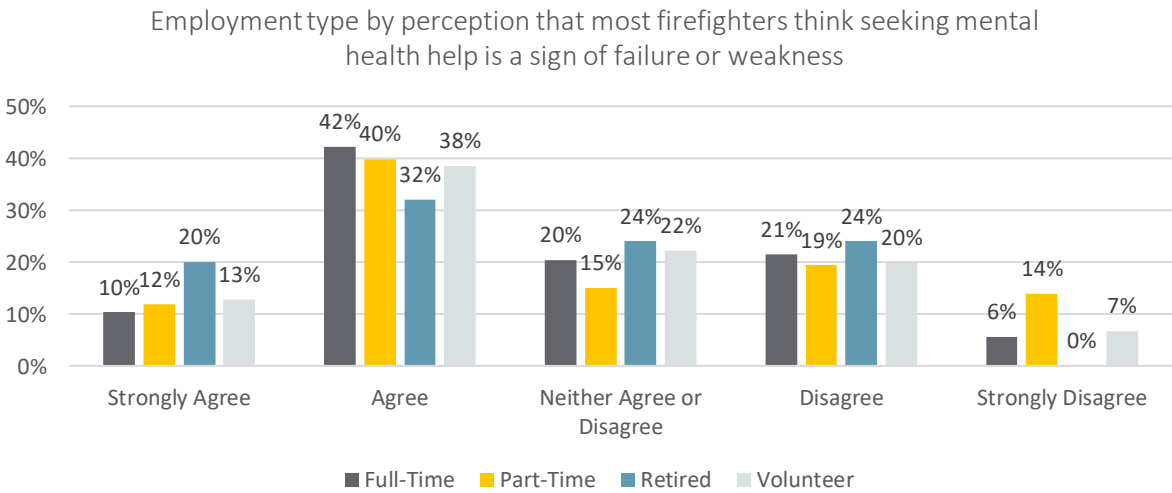
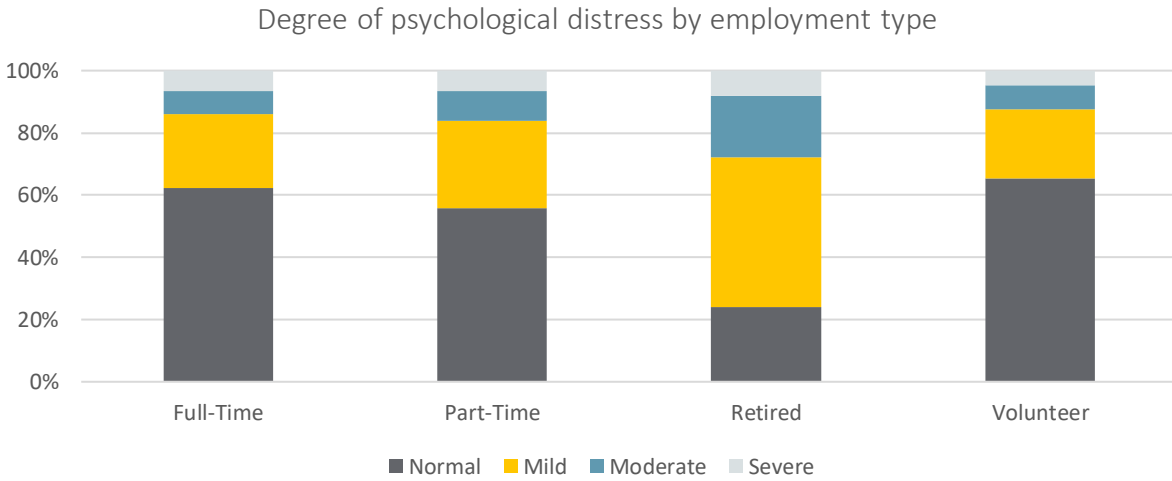
Degree of psychological distress



Degree of psychological stress by years of service

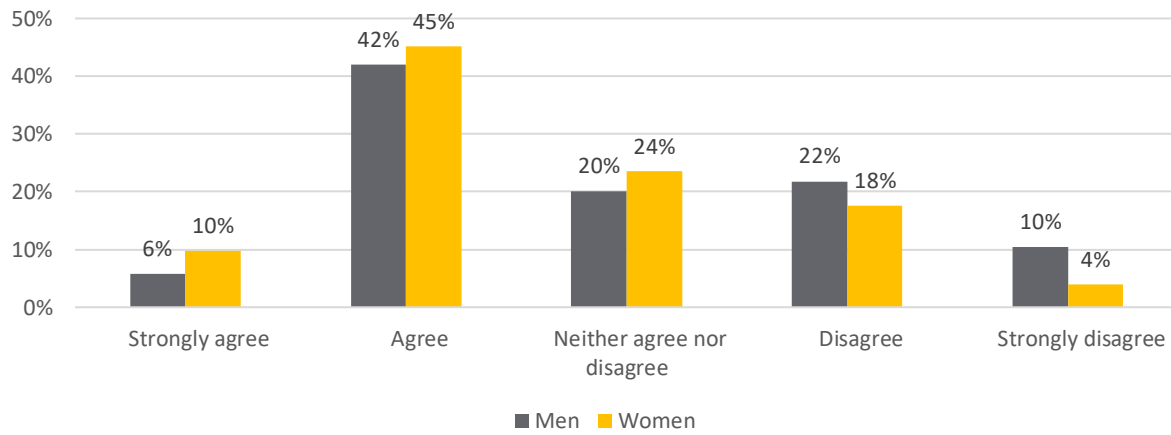


30% percent of respondents indicated that they or their department experienced a co-worker’s death that was determined, or was likely to have been, the result of suicide. This percent was unchanged from 2020.



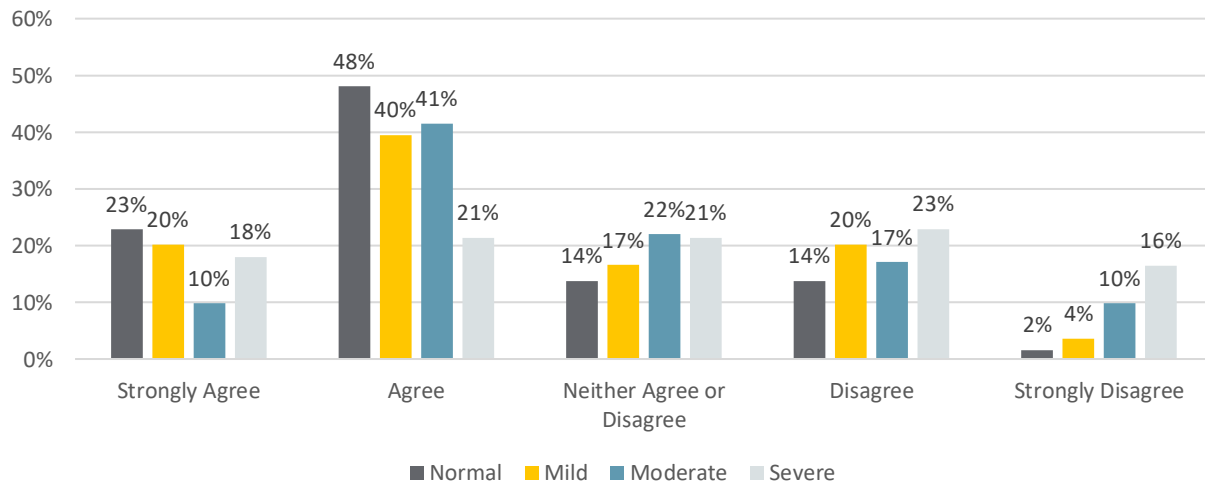
About half of full-time firefighters agreed or strongly agreed that most firefighters thought being treated for behavioral health needs was a sign of personal failure or weakness.

Gender by perception that most firefighters think being treated for behavioral health needs is a sign of failure or weakness



Women were significantly more likely than men to agree that most firefighters think being treated for behavioral health needs is a sign of personal failure or weakness.

Degree of psychological stress by willingness to ask for behavioral health help for themselves (all respondents)



Respondents with lower degrees of psychological stress were more willing to ask for behavioral health help for themselves.

65.4% of full-time firefighters agreed or strongly agreed that they would be comfortable asking for behavioral health help if they needed it, with 30.7% either disagreeing or strongly disagreeing that they would be comfortable asking for behavioral health assistance if needed. There were no differences based on gender status whether a person felt comfortable asking for behavioral health help if they needed it. When asked whether they would support a coworker to seek out behavioral health services if they

needed it, 98.6% of full-time firefighters agreed or strongly agreed that they would support that decision and their coworker.

Of respondents who were not comfortable asking for behavioral health assistance, 71.3% either agreed or strongly agreed that most firefighters think that being treated for behavioral health needs is a sign of personal failure or weakness.

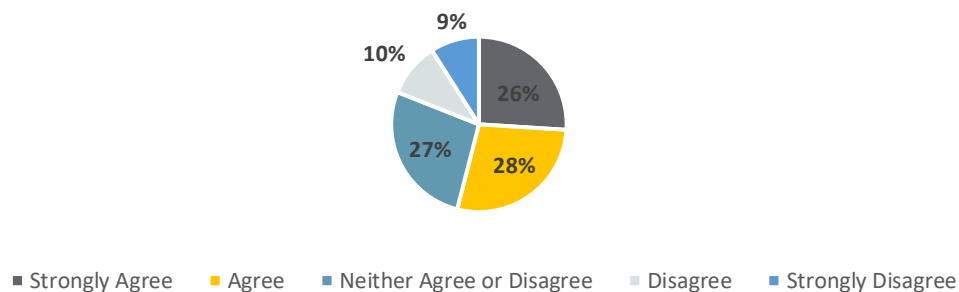
When asked which people or entities they would be comfortable asking for behavioral health assistance, respondents were most likely to turn to a family member or friend (567, or 55.5%) or a peer or coworker (514, or 50.3%). 84 respondents (8.2%) indicated they would not be comfortable asking any of the options for help.

City/county/district Employee Assistance Program	276 (27.0%)
Family member or friend	567 (55.5%)
Department Employee Assistance Program	396 (38.7%)
PFFW Member Assistance Program	209 (20.5%)
Peer or coworker	514 (50.3%)
Treatment provider	431 (42.2%)
None of the above	84 (8.2%)
Other	92 (9.0%)

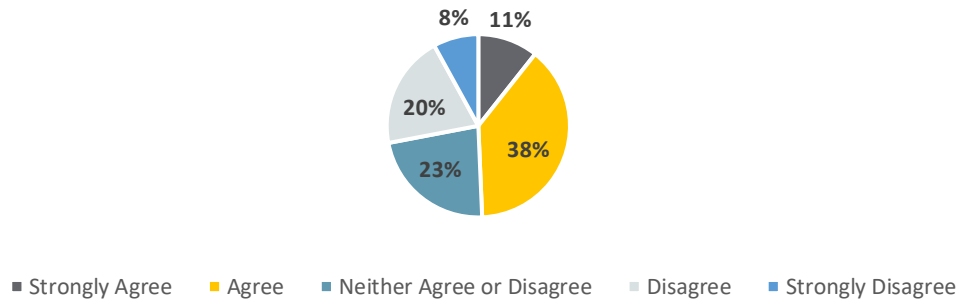
Of the 1022 total responses, 100 people (9.8%) reported seeking help from their department Employee Assistance Program, and 75 (7.3%) indicated that they sought help from an EAP provided by their city, county, or district. Nearly half of respondents either agreed or strongly agreed that these services were helpful in addressing their needs (54% of individuals who sought help from a department EAP, and 49% of individuals who sought help from a city-, county-, or district-provided EAP).

Of the 10 individuals who responded to whether the PFFW was helpful, 50% either agreed or strongly agreed.

Satisfaction with department EAP services



Satisfaction with city EAP services

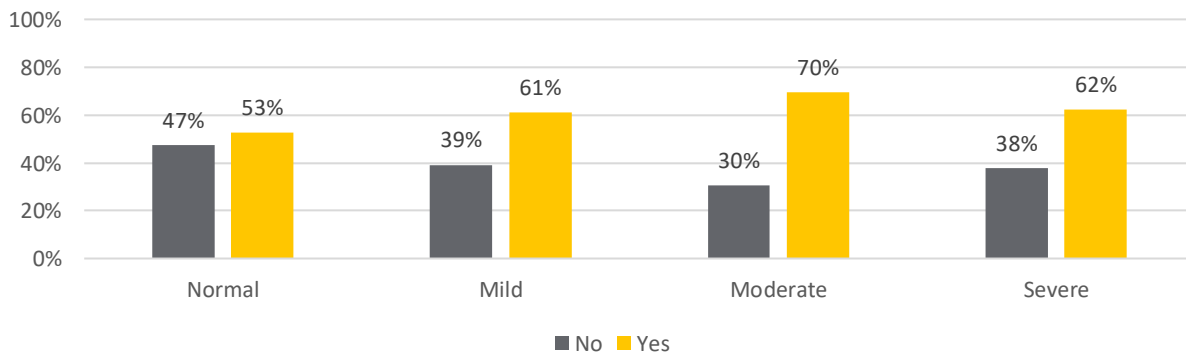


Interest in Behavioral Health Training:

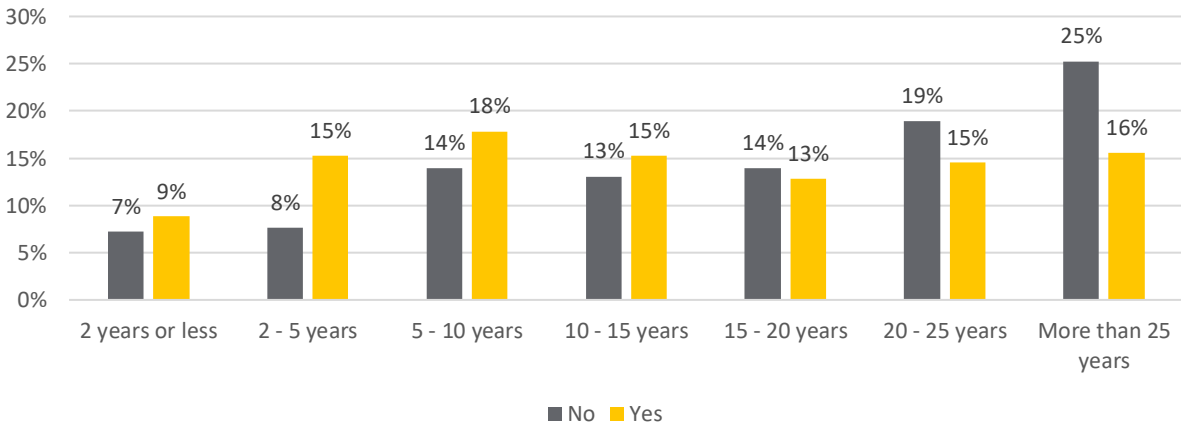
Of the 1022 respondents, 665 (65.1%) indicated that they had received training regarding their fire department’s behavioral health services. Of the 1022 respondents, 578 (56.6%) indicated they would be interested in receiving training on how to assist other firefighters with their behavioral health, addiction, and critical stress needs.

The greater a person’s personal degree of psychological stress, the more they were interested in receiving mental health training to assist other firefighters with their behavioral health needs. The newer a person was in service, the more likely they were to be interested in receiving such training.

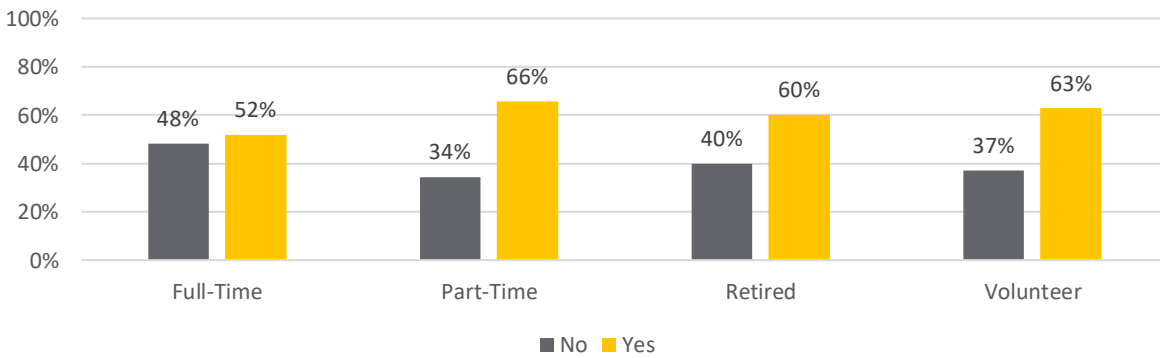
Interest in training related to assisting other firefighters with their behavioral health needs by degree of personal psychological distress



Interest in training related to assisting other firefighters with their behavioral health needs by years of service



Interest in receiving training related to assisting other firefighters with their behavioral health needs by employment type



Summary:

From October 13, 2021, to December 31, 2021, 1,022 Fire and EMS professionals and volunteers across the state of Wisconsin completed a 40-question electronic survey designed to evaluate behavioral health needs and supportive opportunities. Data was gathered anonymously, inquiring about critical/traumatic incidents, thoughts related to anxiety and depression, psychological distress, mental health stigma and engagement with support services. Below is a summary of each category gathered from the survey: job-related critical stress, anxiety and depression, sleep problems, distress and stigma, peer training and behavioral health resources.

Job-related Critical Stress

Of the 1,022 total firefighter and EMS respondents, a majority (91.5%) reported job-related critical stress or traumatic events. The likelihood of experiencing a critical or traumatic event increased as years of service increased. 13.3% had thoughts of suicide or self-harm and almost half of those respondents reported they had been recently bothered by these thoughts over several days. When compared to the NBC National Survey, survey respondents reported significantly less relationship problems, thoughts of suicide or self-harm, and substance abuse compared to the average American.

Anxiety & Depression

16.5% of all respondents screened positive for anxiety symptoms; 14.8% screened positive for depression symptoms.

Sleep Problems

81.3% of the 592 full-time firefighters; 80.6% of part-time firefighters; and 67.3% of volunteer firefighters reported at least one sleep problem. The likelihood of having a sleep problem increased when a person screened positive for anxiety or depression symptoms.

Distress and Stigma

Of the 592 full-time firefighters, over half were considered to have no psychological distress.

Most full-time firefighters agreed they would be comfortable asking for behavioral health help if needed; however, 30.7% disagreed. Of those not comfortable, 71.3% agreed most firefighters think being treated for behavioral health needs is a sign of personal failure or weakness, with women believing this significantly more than men. Those who were willing to seek help were most likely to turn to a family member, friend, peer, or coworker. Of respondents who had previously sought help from an EAP, nearly half said those services were helpful. Most respondents agreed that they would support coworkers seeking mental health assistance.

Training/Resources

Within the 1,022 total respondents, over half indicated they had received training regarding their fire department's behavioral health services and indicated they would be interested in receiving training on how to assist other firefighters. Respondents also expressed interest in training for a peer-supported program; suggesting that a peer-mentor program might be approachable.