CARBYNE

NENA
THE 9-1-1 ASSOCIATION

2024
Pulse of 9-1-1

NENA & Carbyne
State of the Industry Survey

Overview

In 2023, Carbyne and NENA conducted a groundbreaking, comprehensive survey of emergency communications professionals across all levels of emergency services in North America.

We expanded the 2024 survey to explore some of last year's discoveries and examine how the industry has shifted over the past 12 months. The 2024 survey focuses on key issues such as Staffing, Technology, Training, Mental Health, and Diversity within the Emergency Communications Center (EEC).

The Survey was fielded throughout February 2024, and we received 1,335 responses, compared to 850 responses in 2023—a **36%** increase. This growth included a slight proportional shift of responses away from the very large and very small ECCs to more representation of mid-range centers. We would like to thank everyone who responded, sharing their precious time to provide often painfully honest answers to their challenges in a very stressful occupation.

This year's report shines a more intense spotlight on active personnel's significant challenges, viewpoints, and goals within the emergency communication field. It includes a diverse range of experiences and opinions across the industry, from telecommunicators, dispatchers, IT, management, and leadership. While some challenges are unique to certain centers, many of the issues this survey uncovered impact centers of all sizes nationwide.

Although we may face significant challenges within the industry, we aspire to harness the collective knowledge of our entire community to enable industry leaders and policymakers to enact positive change and mold the future of the 9-1-1 profession.

> "
> It is vitally important to have data. If we don't have data on how our industry professionals perceive their job, what their work environment is like, and their mental health within the positions that they hold, then we have no platform to advocate from.
>
> **Brian Fontes**, NENA CEO
> "

Credits:
National Emergency Number Association (NENA)
Carbyne

Key Insights

The 9-1-1 profession has some of the most motivated employees in any industry, with **87%** of respondents stating that they love or like their job! Yet, despite their motivation, nearly one in three staffers feel stressed about coming to work each day, and almost a quarter acknowledge that the job has adversely affected their marital status.

Nearly all (**99.2%**) respondents report that their centers take calls from both administrative (10-digit or 3-1-1) and emergency (9-1-1) lines, and between **60%** and **75%** of their total call volume comes from administrative calls. Three-quarters of ECCs don't have the budget to increase their headcount. **82%** of those with the budget have difficulties filling the open roles, and **50%** of trainees hired don't make it through probation. These figures leave centers sorely understaffed to handle the volume of incoming calls they receive.

There is an undeniable strain on the people who are the backbone of emergency services, the voice at the end of the line. Staffing challenges continue to grow, from difficulties in hiring new personnel to problems with employee retention and an aging workforce that shows clear signs of stress and burnout.

As Dawn Shumway, President of Idaho APCO and NENA, and 9-1-1 Public Safety Communications Manager at Ada County Sheriff's Office, says, "I see that our people love this profession. They love their families too, and they don't know how to [balance] that. If they are giving enough at work, they aren't giving enough at home. And if they are giving enough at home, they aren't giving enough at work."

Women, who make up 70% of the communications center workforce and 70% of trainees, show particularly high levels of stress, with **34%** of women versus only 26% of men feeling stressed. More women than men (**25%** vs. **19%**) said the job affected their marital status. **61%** of women have a spouse or partner, versus 74.5% of men, and they are three times more likely than men to be divorced. At the same time, despite their majority, fewer women are proportionally represented in senior roles. Just over **52%** made it to Director of the ECC.

For all respondents, non-emergency calls, combined with high call volumes, are a major issue; **44%** of respondents ranked the high volume of non-emergency calls as the first or second biggest telephony issue. Many respondents feel that technology such as Artificial Intelligence (AI) could help relieve some of the burden, allowing them to focus on the emergency calls that need a human response.

Staffing

- **82%** of respondents report that they cannot fill open positions
- **75%** of respondents say they are unable to receive approval to open new headcount
- Nearly **22%** of telecommunicators work **mandatory** overtime daily, and **50%** at least once a week.
- Nearly **38%** of telecommunicators work **voluntary** overtime every day, and more than **75%** at least once a week
- Respondents report the main reasons for difficulty in hiring and keeping staff are the stress of the position, the long hours, shift work, and the low pay.
- Negative workplace culture was ranked in the top three workplace issues by **29%** of respondents.

Training

- **70%** of trainees are women.
- A huge amount of time and resources are invested in training, but approximately **50%** of trainees fail the training.
  - The larger the ECC, the more likely the employee will fail the training.
  - The majority of centers provide between 4 to 9 months of training.
- Despite significant investment in training, only **37.5%** feel adequately trained to respond to most crises. The larger the call center, the greater the feeling of inadequacy (**44%** in ECCs with 50+ employees vs **31%** in ECCs with 1–10 employees).
- 1 in 3 telecommunicators don't feel trained to handle an active shooter or a swatting call, and 2 in 5 are unsure of how to handle a suicidal caller or mental health event.
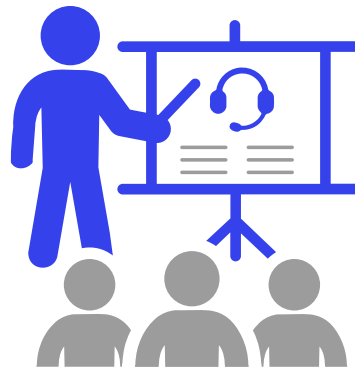
Technology

- Outdated technology continues to be an issue throughout ECCs nationwide.
- More than three-quarters of centers experienced outages, and nearly **60%** experienced a CAD outage specifically.
- **72.5%** of respondents reported access to accurate geolocation services, a positive increase from less than half of respondents last year.
- Less than **5%** of ECCs have call triage capabilities, a solution that can help relieve the burden of call surges, misdials, and non-emergency calls.
- Only **24%** of ECCs have incident imaging, such as live video. Those using incident imagery (**64%** vs **48%**) believe it can reduce stress. They are also more likely to believe in the value it represents.
- Despite their general adoption by the public, less than **27%** can use WhatsApp or other instant text messaging services.
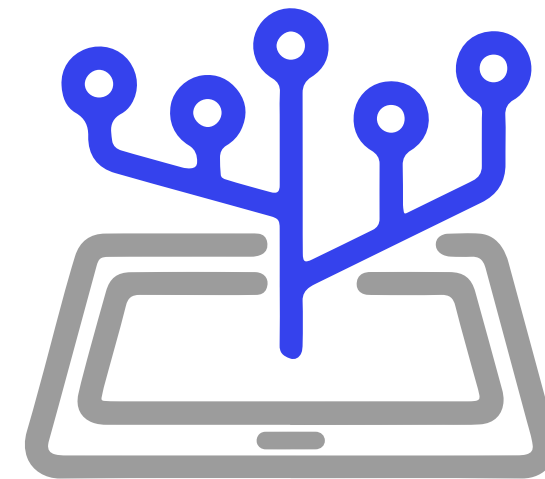
Wellness/Mental Health

- **85%** of respondents report that they experience one or more symptoms of burnout.

- More than **95%** of employers provide some form of mental health support, up from **90%** in 2023.

- **44%** of employees use mental health services, up from **34%** last year.

- When asked why respondents do not use these services, they cite concerns about lack of confidentiality and how it will impact their career, or they simply don't have the time to fit it into their schedule.

- Given the opportunity to write freely about how their work affected their marital status, sentiment analysis shows that the respondents' comments were resoundingly **(62%)** negative.

- Around **47%** of participants identified their center's management as the most stressful aspect of their job, above incoming calls.

Demographics

- The industry exhibits significant female representation, with women making up **70%** of survey respondents. This female predominance is seen across a range of roles in the industry, maintaining a fairly even distribution across roles: Trainees at **70%**, Dispatchers at **80%**, Telecommunicators at **64%**, Supervisors at **73%**, Managers at **57%**, Coordinators at **84%**, Deputy Directors at **56%**, and Directors at **52%**.

- Demographically, center staffing is aging. More than the number of young people joining is needed to replace those retiring or burning out and leaving in their fifties. The older, more experienced telecommunicators are leaving the industry.
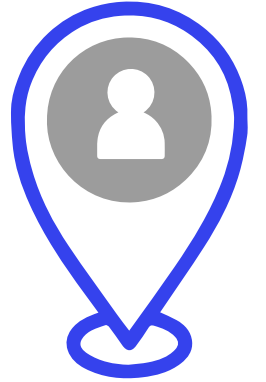
Diversity, Equity, and Inclusion

- The vast majority of staff speak only English.
  - **93%** of ECCs rely on a human-based translation service
  - 1 in 3 ECCs have Text-to-9-1-1 transcription
  - Less than 5% use any form of automated AI transcription

- While 45% of participants felt their workplaces were mostly or entirely inclusive (down from **56%** in 2023) **49%** observed a lack of diversity within their leadership ranks (supervisors, managers, directors).

- Most (**71%**) felt comfortable expressing their identity, culture, and background at work.

- A quarter of participants reported that their center's demographics do not accurately reflect its community, and more than **44%** do not reside within its jurisdiction.

Section 1

General

Q **What is your job title?**

● Trainee	● Deputy Director
● Dispatcher	● Director
● Call Taker	● Training Manager
● Manager	● Coordinator
● Shift Supervisor	● Other

37%

Responder-level
(inc. majority of Other perform multiple similar roles)

17%

Supervisor-level

32%

Management-level

→ Generally, **70%** of women are in most roles.

Q In what state or U.S. territory do you currently work?

➔ 4% – Canada

United States Heat Map

State	%
Washington	2.05%
Oregon	1.37%
Montana	1.02%
North Dakota	0.00%
Minnesota	1.37%
New Hampshire	0.00%
Vermont	0.00%
Maine	0.68%
Idaho	0.34%
Wyoming	1.37%
South Dakota	0.34%
Wisconsin	4.44%
New York	0.68%
Massachusetts	3.07%
Rhode Island	0.00%
Connecticut	0.68%
Nevada	0.34%
Utah	1.71%
Colorado	5.46%
Nebraska	0.34%
Iowa	1.37%
Michigan	3.41%
Pennsylvania	3.07%
New Jersey	0.00%
Delaware	0.00%
Maryland	2.73%
California	6.83%
Kansas	1.71%
Missouri	3.07%
Illinois	2.05%
Indiana	2.05%
Ohio	1.71%
West Virginia	5.80%
Virginia	5.80%
Washington, D.C.	0.00%
Arizona	0.00%
New Mexico	0.68%
Oklahoma	2.05%
Arkansas	0.34%
Kentucky	3.07%
Tennessee	4.44%
North Carolina	4.10%
South Carolina	1.37%
Texas	5.12%
Mississippi	1.02%
Alabama	2.39%
Georgia	2.73%
Louisiana	1.02%
Florida	5.46%
Alaska	0.00%
Hawaii	0.00%

0% Percentage of Respondents 100%

Q How many people work in your Emergency Communications Center?

- 1-10 — 10%
- 11-20 — 32%
- 21-30 — 22%
- 31-50 — 18%
- 50+ — 18%

➔ The 2024 survey represented all sizes of centers, with similar proportions to the 2023 survey, with slightly more in centers with 11-50 employees and less in centers with 1-10 and 50+ employees.

➔ All sizes of centers shared the same challenges, such as a lack of staff, call surges, and misdials.

Q Rank the issues that your center faces

Issue	%
Vacant positions	56%
Staffing turnover (people quit often)	36%
Staff Burnout	31%
Negative/toxic workplace culture	20%
Chronic Absenteeism	15%
Pocket Dials	10%
A high volume of non-emergent calls	9%
Not enough headcount allotted	6%
Call surges	4%
Communicating with non-English speaking callers	4%
Lack of accurate caller location	3%
Call Center Outages	2%
Swatting Calls	1%
Cultural misalignment between the call center and the community it serves	1%
Not enough diversity within the workplace	1%

➔ The primary issue, ranked first or second, is vacant positions.

➔ This leads to the related challenges of staff burnout and staff churn.

➔ Adding to the pressure caused by a lack of staff is the huge number of Pocket Dials (misdials) and non-emergency calls that reduce the ability of telecommunicators to respond quickly to the most critical emergency calls.

➔ In addition, **29%** of respondents ranked negative workplace culture in the top 3 issues.

Technology Challenges & Innovation

The survey results depict a continuing hesitance among 9-1-1 centers to integrate new technologies into their systems. The data shows that a substantial number of respondents consider their centers to be technologically innovative, yet they do not possess the latest innovations. Many also lack an understanding of emerging 9-1-1 technologies, how they work, and how they may deliver potential advantages. This knowledge gap fuels a degree of skepticism as to whether such technological advances could effectively address longstanding issues such as staff shortages and elevated call volumes.

Q In your opinion, is your center technologically innovative?

76% YES   **24%** NO

Q In your experience, what has been the biggest innovation in 9-1-1 over the last 3 years?

Text-to-9-1-1 is still regarded as the **biggest innovation** while **Accurate Location**, **Mapping**, and **Video** are also highlighted as significant advancements in the field.

> Anything that can help the telecommunicators' role, which can be automated but is not currently automated, [for example] location accuracy as soon as you answer the call, would tremendously help call processing times.
>
> **Melanie Jones**, Executive Director Guilford Metro 9-1-1, North Carolina

Q Respondents Ranked the following technology/telephone challenges either first or second

Challenge	%
Lack of accurate caller location	34%
Call System Outages for more than 5 minutes	15%
CAD System Outages for more than 5 minutes	14%
Internet Outages for more than 5 minutes	8%
Pocket Dials	41%
Call surges	22%
Swatting Calls	3%
Communicating with non-English speaking callers	17%
High volume of non-emergent calls	44%

➡ The high volume of non-emergent calls was ranked first or second by **44%** of respondents.

➡ **41%** of respondents ranked misdials first or second. This continues to be a major issue with the growing use of smartphones, smart devices, and apps that include easily-triggered emergency call buttons.

➡ The lack of accurate caller location was marked first or second by **34%** of respondents.

➡ "Call Surges" was marked first or second by **22%** of respondents.

➡ Communicating with non-English speaking callers was marked first or second by **17%** of respondents.

Q Has your call center experienced an outage in the last 12 months?

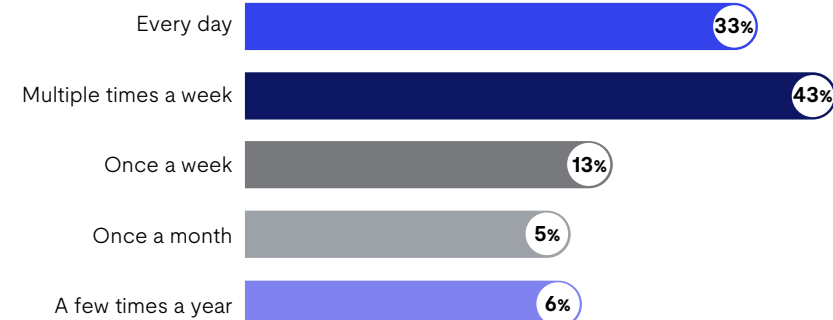(The center's computer systems or phone service carrier went down, and you were unable to receive calls)
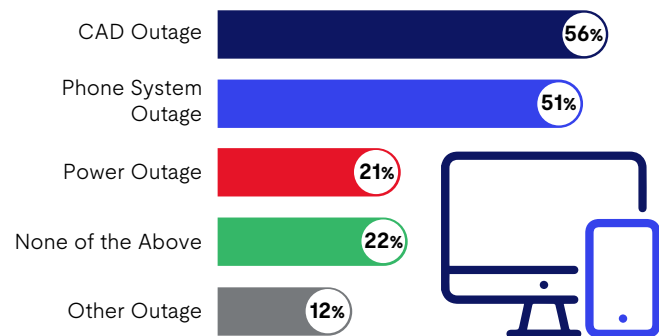
Outage Type	%
CAD Outage	56%
Phone System Outage	51%
Power Outage	21%
None of the Above	22%
Other Outage	12%

➡ More than three-quarters of centers experienced outages, and nearly **60%** experienced a CAD outage specifically.

➡ Other responses refer predominantly to internet outages.

➡ While outages occur slightly less often in larger call centers, three-quarters of the largest call centers did experience some form of outage, compared to **80%** of the smallest centers.

Q How frequently does your center experience high-call volume events?

(For example, shootings, structure fire, alleged crime in process, multi-car accidents, etc.)

Frequency	%
Every day	33%
Multiple times a week	43%
Once a week	13%
Once a month	5%
A few times a year	6%

➡ **75%** of call centers experience high call volumes more than once a week.

➡ One-third of call centers experience this every day.

➡ The larger the ECC, the more call surges it experiences; — **64%** of the largest call centers experience high call volumes for specific incidents every day and **94%** daily or multiple times a week.

"
We get call surges daily. We have done some mathematical modeling to identify when the surges are going to come during the week, and what we are trying to do now is 'power shifts.' Everybody is familiar with doing an eight-hour or 12-hour shift in 9-1-1; we've actually put shifts in the middle of that to handle the call surges.

One of the challenges we identify is how to isolate the area of a school shooting to ensure that calls come into the center, where the rest of the 1,229 square miles of Berkeley County are still answered because there are still emergencies going on throughout the county.

Sam Gaither, Communications Chief, Berkeley County Communications Department, South Carolina
"

Q **Does your center take both 9-1-1 and non-emergency calls? What percentage of your call volume is non-emergency calls?**

99% YES **+** **1%** NO
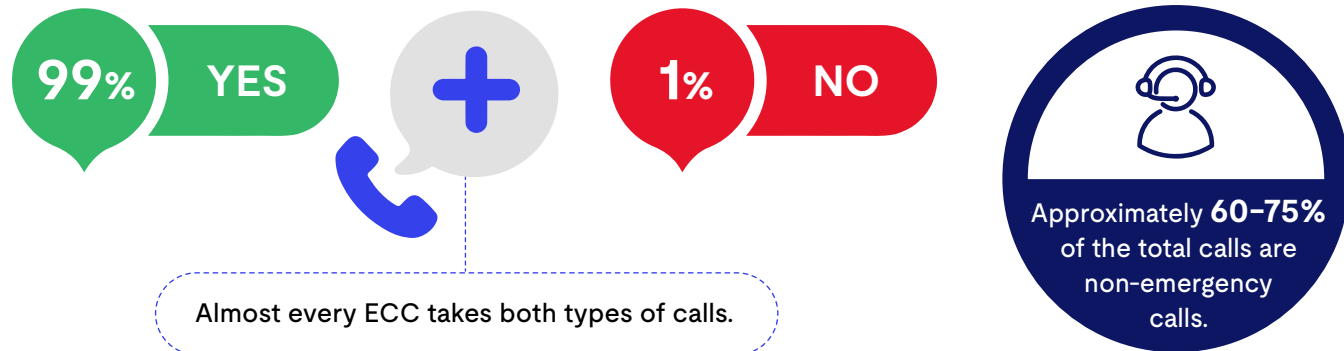
Almost every ECC takes both types of calls.

Approximately **60–75%** of the total calls are non-emergency calls.

> Our centers have been used for everything for the last 60 years—all the calls coming into the police and fire departments, animal protection, they threw at 9-1-1 centers, and we have to reroute those calls to where they are supposed to be, so we have to come up with solutions to get those calls where they belong.
>
> **Scott Brillman**, Director, Fairfax County Department of Public Safety Communications, Virginia

Q **Is your center using Incident Imagery?**

24% YES **76%** NO
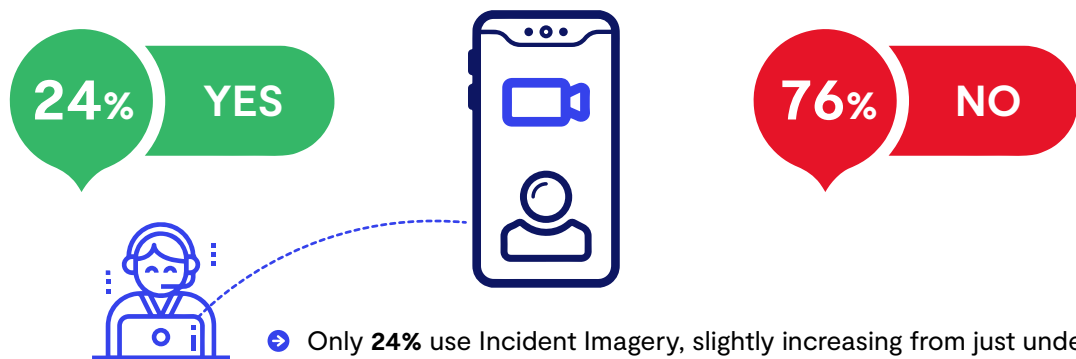
➲ Only **24%** use Incident Imagery, slightly increasing from just under **20%** in 2023.

Q **Incident Imagery - Respondents that use Incident Imagery in their center, answered these additional questions**

Does your center have an Incident Imagery usage policy?

66% YES **34%** NO

Do you believe that having access to Incident Imagery in the Emergency Communications Center provides faster and more accurate information to telecommunicators, dispatchers, and first responders?

80% YES **20%** NO
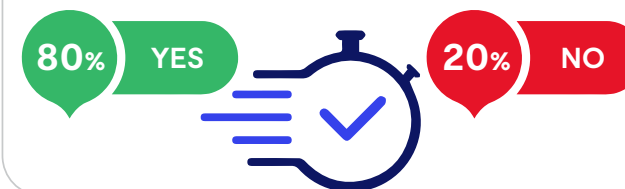
Do you believe that having access to Incident Imagery in the Emergency Communications Center reduces the number of questions a call taker has to ask because they can see for themselves?

44% YES **56%** NO

Do you believe that having access to Incident Imagery in the Emergency Communications Center provides more accurate information to field responders heading to the scene?

91% YES **9%** NO

A clear majority of ECC staffers who use Incident Imagery, **80-90%**, see the value in it:

➲ Two-thirds of centers that use Incident Imaging have a usage policy.

➲ **80%** believe it can help provide faster and more accurate information to telecommunicators, dispatchers, and first responders.

➲ **90%** believe it can help provide more accurate information to field responders heading to the scene.

➲ **43%** believe that seeing the event through video can reduce the number of questions a call taker has to ask.

Q Do you believe that having access to Incident Imagery in the ECC can reduce some of the stress upon the telecommunicators if they are able to get information faster visually?

52% YES

48% NO

Those using incident imagery are more likely to believe it can reduce stress.

Many believe video may reduce stress

Q Is your ECC connected to an ESInet?

(An ESInet is an Internet-Protocol-based network that is designed and managed specifically for 9-1-1 emergency response communications.)

Management Response

60% YES

28% NO

12% I DON'T KNOW

➔ Lack of knowledge, and understanding about ESInet in general

➔ **60%** of management (Manager, Deputy Director, and Director) say their ECC is connected to ESInet. **12%** don't know.

Q Which ESInet technology does your center use?
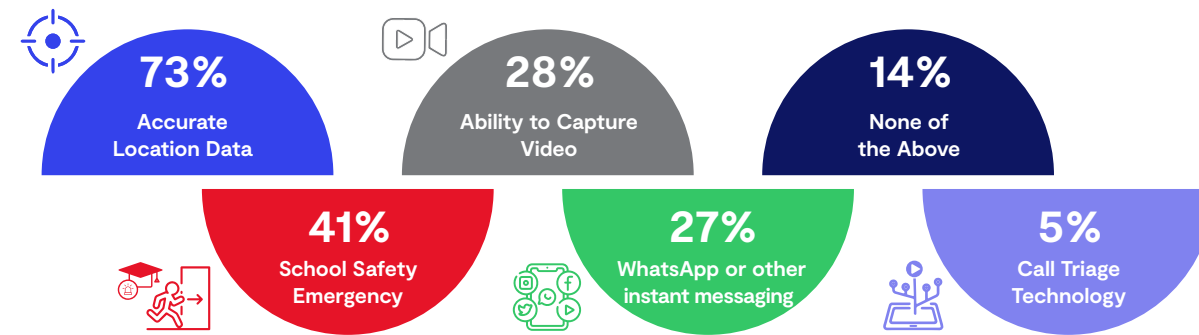
(An ESInet is an Internet-Protocol-based network that is designed and managed specifically for 9-1-1 emergency response communications.)

2024

44% AT&T

16% Lumen

15% INdigital

12% Comtech
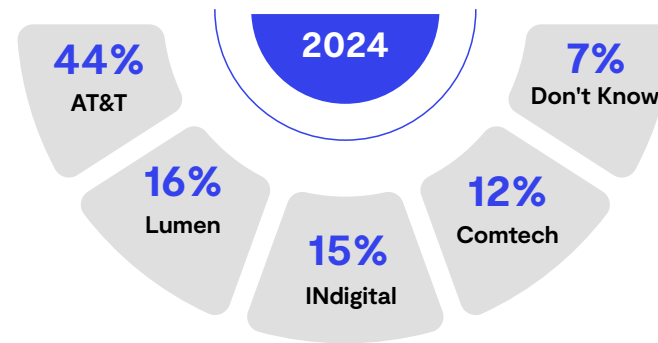
7% Don't Know

➔ According to management, **44%** of ECCs have AT&T ESInet; **16%** have Lumen, **15%** INdigital, and **12%** Comtech.

➔ **7.5%** don't know what type of ESInet they have

Q Does your center have any of the following capabilities?

73% Accurate Location Data

28% Ability to Capture Video

14% None of the Above

41% School Safety Emergency

27% WhatsApp or other instant messaging

5% Call Triage Technology

➔ 1 in 7 centers (**14%**) have **none** of these capabilities.

➔ **72.5%** have location.

➔ Overall, fewer than **29%** of respondents say they have video.

➔ Fewer than **27%** have WhatsApp or other instant messaging capability.

➔ **40%** have some form of school alerting technology.

➔ Overall, fewer than **5%** say they have Call Triaging to handle call surges.

Section 3

Staffing

Staffing issues continue to pose the most significant challenge to emergency communications centers. The sector faces considerable issues in hiring, training, and retaining its workforce. The high volume of calls from both administrative and emergency lines compounds this issue. A high proportion of the respondents believe that the formidable stress levels associated with the job, combined with subpar remuneration, are major factors discouraging the influx of new talent.

This concern is underscored by a 2023 9-1-1 staffing survey conducted by the International Academies of Emergency Dispatch, which painted a grim picture of the staffing crisis. The survey found, "Nearly one-third of the centers reported stunning vacancy rates in 2022. Thirteen [of 774 responding centers] reported that **71%** or more of positions were unfilled; 92 reported a vacancy rate between **51%** and **70%**; and 202 reported [vacancy] rates from **31%** to **50%**... Nearly every participant reported a loss of employees in 2022."

> " We are dealing with lives. The impact of not having enough staff in a 9-1-1 center is quite simply that your call may go unanswered. And if you are calling because your husband is having a heart attack, or you need CPR on your child, you need that call answered. And that weighs deeply on our 9-1-1 staff members when they can't answer the phone.
>
> **Tamara Bell**, Managing Director, Southwest Regional Communication Center, Texas "

* International Academies of Emergency Dispatch (IEAD) - National Association of State 9-1-1 Administrators (NASNA) Staffing Survey Results 2023, p3, "A Deep and Wide-Ranging Problem." https://www.emergencydispatch.org/in-the-news/press-releases/d1ff0c4c-38ca-4e4f-8a96-cb6d9f2e5f63

Q Does your center struggle with vacant/unfilled positions?

82% YES   **18%** NO

More than **82%** of call centers struggle with staffing shortages (a slight reduction from 88% in 2023), a figure which increases with the size of the center:

- **70%** of ECCs with 1-10 employees
- **81%** of ECCs with 11-20 employees
- **82%** of ECCs with 21-30 employees
- **89%** of ECCs with 31-50 employees
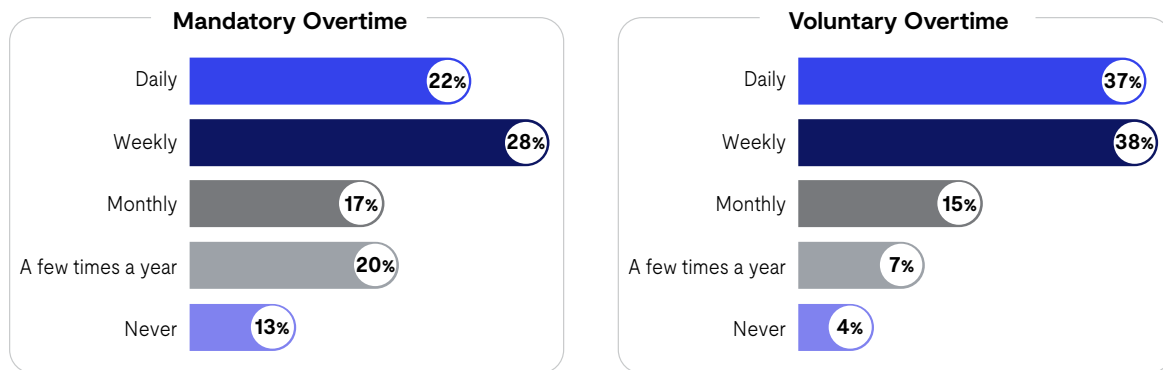- **85%** of larger ECCs (down from 93% in 2023)

Q **Does your center face short staffing** (not enough headcount allotted)**?**

75% YES **25% NO**

75% of ECCs face short staffing due to a lack of allotted headcount, a figure that appears to rise with the size of the center.

➔ **66%** of ECCs with 1-10 employees

➔ **73%** of ECCs with 11-20 employees

➔ **77%** of ECCs with 21-30 employees

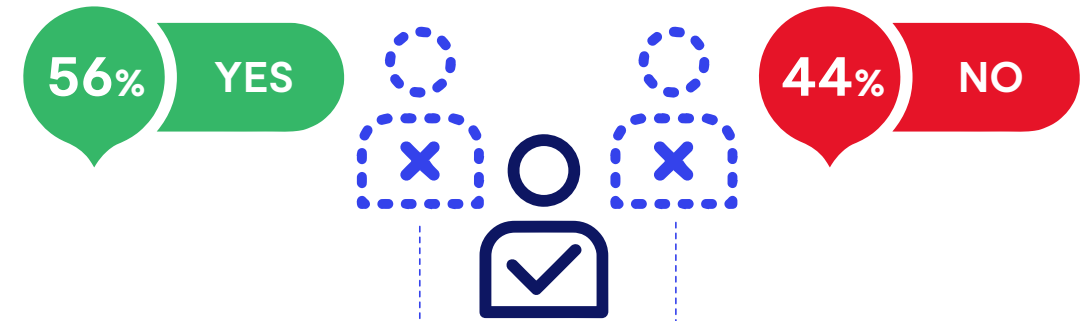➔ **77.5%** of ECCs with 31-50 employees

➔ **78%** large centers

Q **Does your center struggle with chronic absenteeism?**

56% YES **44% NO**

➔ More than **55%** of call centers struggle with chronic absenteeism, which increases with call center size to **77%** of large centers.

Q **How often do public safety telecommunicators work overtime in your center?**

Mandatory Overtime

Daily	22%
Weekly	28%
Monthly	17%
A few times a year	20%
Never	13%

Voluntary Overtime

Daily	37%
Weekly	38%
Monthly	15%
A few times a year	7%
Never	4%

The 9-1-1 overtime statistics are shocking:

➔ Nearly **22%** of telecommunicators work **mandatory** overtime daily, and **50%** at least once a week.

➔ Nearly **38%** work of telecommunicators work **voluntary** overtime daily, and more than **75%** at least once a week.

➔ Combined with the stressful nature of their roles, the prevalence of overtime places a crippling burden on staffer wellbeing.

Q **Does your center struggle to hire new employees?**

73% YES **27% NO**

More than **73%** of centers struggle to hire new employees, down from **80%** in 2023. The struggle decreases with the center's size.

➔ **84%** of ECCs with 1-10 employees

➔ **78%** of ECCs with 11-20 employees

➔ **74%** of ECCs with 21-30 employees

➔ **66%** of ECCs with 31-50 employees

➔ **62%** of large centers

Q Please rank the following staffing challenges that your 9-1-1 center faces

Top Three Issues Relating to Staffing Shortages

- Unable to hire enough staff — **53%**
- Staff burnout — **36%**
- Don't have enough headcount to cover shifts — **32%**

Almost equal division of staffing challenges - all are major issues.

> " We had to really pay attention to retention because we can recruit all day, 365 days a year, but if we are not retaining the great employees that we have, then we are always just going to be on this hamster wheel.
>
> **Heather McGaffin**, Director of the Office of Unified Communications, D.C. "

Q Why do you think people are resistant to working in 9-1-1 call centers?

Respondent Quotes

→ This job is very high-stress, and the pay and benefits are low compared to other first responders. There is also not the respect and recognition that other first responders receive.

→ Similar-paying jobs are available outside of emergency services that don't involve the responsibility and stress of the 9-1-1 telecommunicator position.

→ We struggle to hire people when agencies around us pay more than we can. Most people do not realize this could be a career. 9-1-1 employees' benefits do not match what the job requires. Trauma and burnout limit the amount of time employees are willing to stay in the job.

→ The 9-1-1 center is the hub of everything and often the most forgotten, overlooked, undervalued, and least recognized.

→ Our center actually pays well and has good benefits, but it's not enough to keep people. Shift work/weekends/holidays is not something the "new" generation is as willing to tackle, especially with mandatory overtime eating into their off time.

- **40%** referred to "stress, mental, and emotional strain"
- **38%** referred to the long hours, schedule and 24/7 shift work
- **23%** referred to the low salary

The Pulse of 9-1-1 2024 Survey results are consistent with the[1]IAED–NASNA Staffing Survey Report, which asked 9-1-1 employees why they left their jobs; the top reasons cited were the work hours, salary, and stress. The result was that when 9-1-1 employees were offered what they considered a better opportunity, they took it.

Q Does your center allow people to work from home?

- **1% YES**
- **2% YES** for non-emergency calls only
- **92% NO**
- **5% NOT** currently, but considering that option

➔ The vast majority of ECCs do not allow people to work from home. Only **2.7%** of centers allow it.

Q What factors prevent your center from allowing people to work from home?

Overall response

- Inadequate Remote Work — **68%**
- Agency/Department Policies — **57%**
- Concerns about Isolation — **18%**
- Protecting Citizen Privacy — **35%**
- Other (please specify) — **17%**

➔ **68%** refer to technology (an additional 26 refer to equipment /computers)

➔ **57%** refer to policies

➔ Other concerns include staff isolation, protecting citizen privacy, and management/administration resistance.

Among management, more **(71%)** refer to technological barriers, fewer **(49%)** to policy, and significantly more **(28%)** to concerns about staff isolation.

1. International Academies of Emergency Dispatch (IEAD) - National Association of State 9-1-1 Administrators (NASNA) Staffing Survey Results 2023, p5, "Reasons Why 9-1-1 Employees Left Their Jobs". https://www.emergencydispatch.org/in-the-news/press-releases/d1ff0c4c-38ca-4e4f-8a96-cb6d9f2e5f63

Do you believe technology can make it easier for 9-1-1 centers to manage staffing shortages?

64% YES | **36%** NO

➲ **64%** have a positive attitude toward the role technology can play.

Technology optimism by role:

➲ Overall **75%** of leadership - Managers **(77%)**, Deputy Directors **(72%)** and Directors **(75%)** - are more optimistic about the potential benefit of technology than employees.

➲ **50-57%** of agents and **66%** of trainees think technology can help.

How/Why?

➲ Many responses refer to using technology to help answer non-emergency calls, and some refer to using AI.

➲ The majority do not think AI can replace humans for emergency calls.

➲ A common response from management is that allowing employees to work from home would make additional shifts easier to handle and reduce the loss of employees who move further away.

Respondent Quotes

→ If we have more remote non-emergency telecommunicators, it would take the load off 9-1-1.

→ If technology can help us manage call load more efficiently, there would be less burnout and fewer call-outs.

→ Technology will be able to weed out swatting calls and non-emergency calls and give the dispatchers the ability to be more effective and efficient, which can improve mental health and job satisfaction.

→ AI for non-emergency calls/referrals, working from home options for telecommunicators/dispatchers.

Many 9-1-1 employees have young children, and if both adults in the household have jobs, they often have opposite schedules and cannot afford childcare. Remote technology would improve the ability of working mothers and fathers to do shift work and work on holidays.

Because we have access to information, we [telecommunicators] are becoming more involved in the response itself. We are incorporating video, audio, location, multimedia, doing research on the backend, and being able to pull information on the subjects included in that call's event, then provide that information back and forth [to field responders]. It's creating a more complete storyline of the individual, and that's only coming through the usage of technology.

Michael Brewer, Deputy Director at Jefferson County Communications Center, Colorado

Wellness/Mental Health

Wellness and mental health issues are reaching a critical level within the 9-1-1 center environment. The 2024 and 2023 Pulse Surveys have highlighted the extent of stress, burnout, and anxiety across all layers of 9-1-1 professionals in emergency communication centers, impacting everyone from telecommunicators to directors. Respondents have adopted a wide range of coping strategies, ranging from negative tactics such as excessive drinking, self-isolation, and escapism to more positive strategies, including engaging in hobbies, exercising, spending time with pets and family, and turning to prayer.

Many 9-1-1 organizations are providing some level of mental health support. However, there is a pervasive stigma associated with seeking help, highlighted by the fact that while more than **90%** of 9-1-1 employers offer supportive services, a mere **34%** of employees and even fewer telecommunicators (at 18%) take advantage of these resources.

Q How much do you enjoy your work?

| 57% | 30% | 9% | 4% |

Love it: 57%   Like it: 30%   Neutral: 9%   Dislike it: 4%
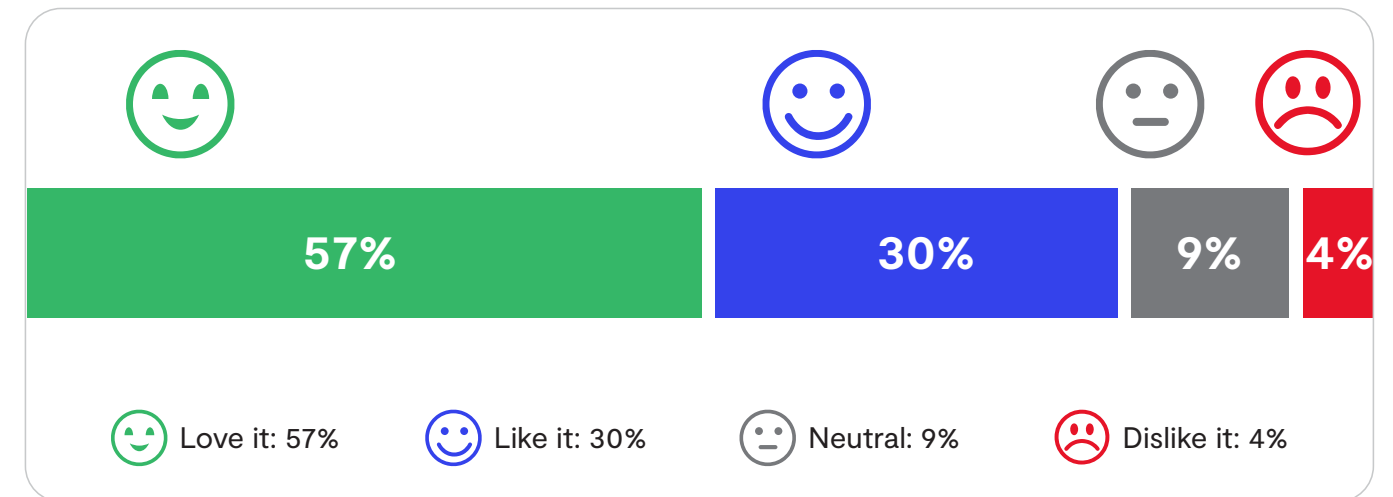
➔ Despite the stress, the great majority of respondents—**87%**—enjoy their work. Fewer than **4%** responded negatively.

Q How do you process work-related stress?

70% talk to friends, family or colleagues

26% rely on faith/religion

44% have a pet

21% use a professional mental health service

35% walk or play sport

17% play video games

27% take regular vacations

12% have quiet hobbies – reading, art, gardening, fishing etc.
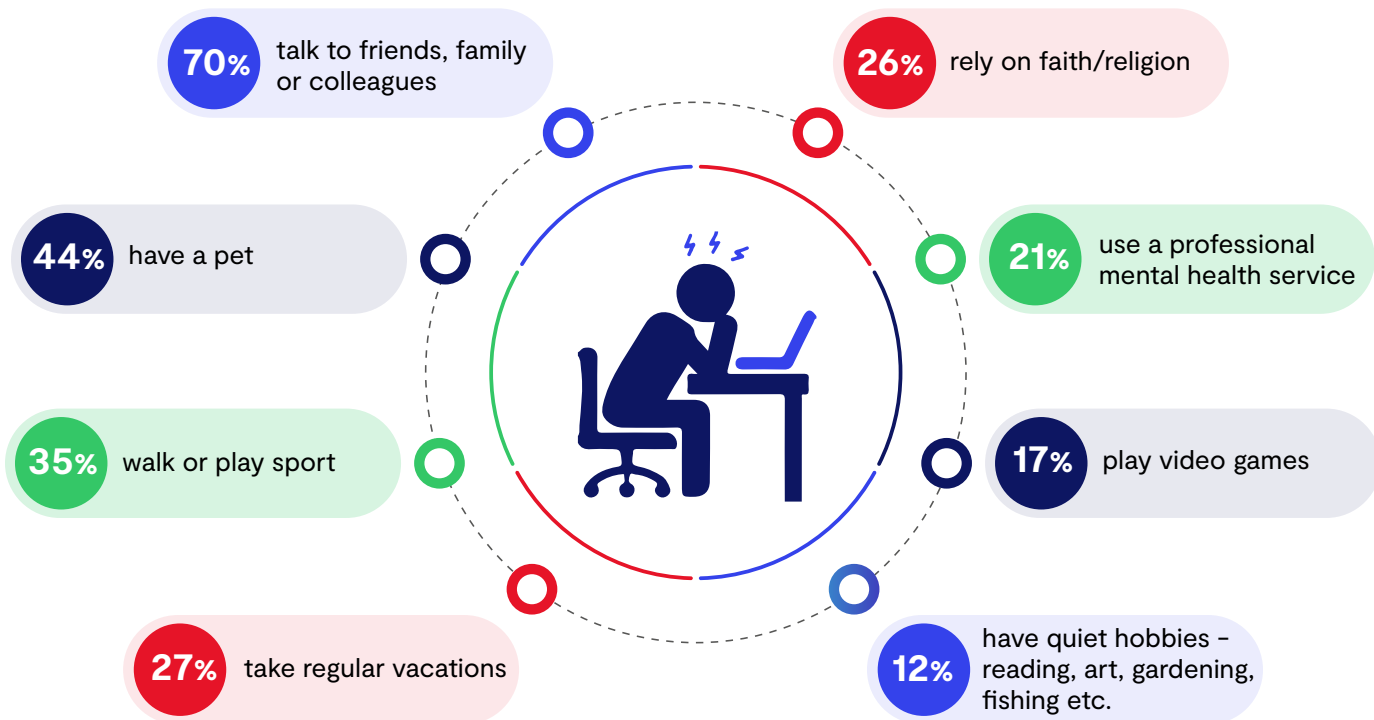
While there are many ways to process the stress positively, it is troubling that a significant percentage have a less positive response:

➡ **8.4%** turn to alcohol or other substances.

➡ **7%** do nothing.

read Fishing work vent
Watch.tv
music
listen good lot it'll arts
crafts try need
hobbies play Spend time
family gardening

Q Which of the following stress management services does your employer provide?

Service	%
EAP – Employee Assistance Program	85%
Peer Support	67%
CISM Dbriefing	62%
Support/Therapy animal	22%
Stress Management App	16%
On-site Mental Health Clinician	10%
Other (please specify)	6%
None of the above	4%
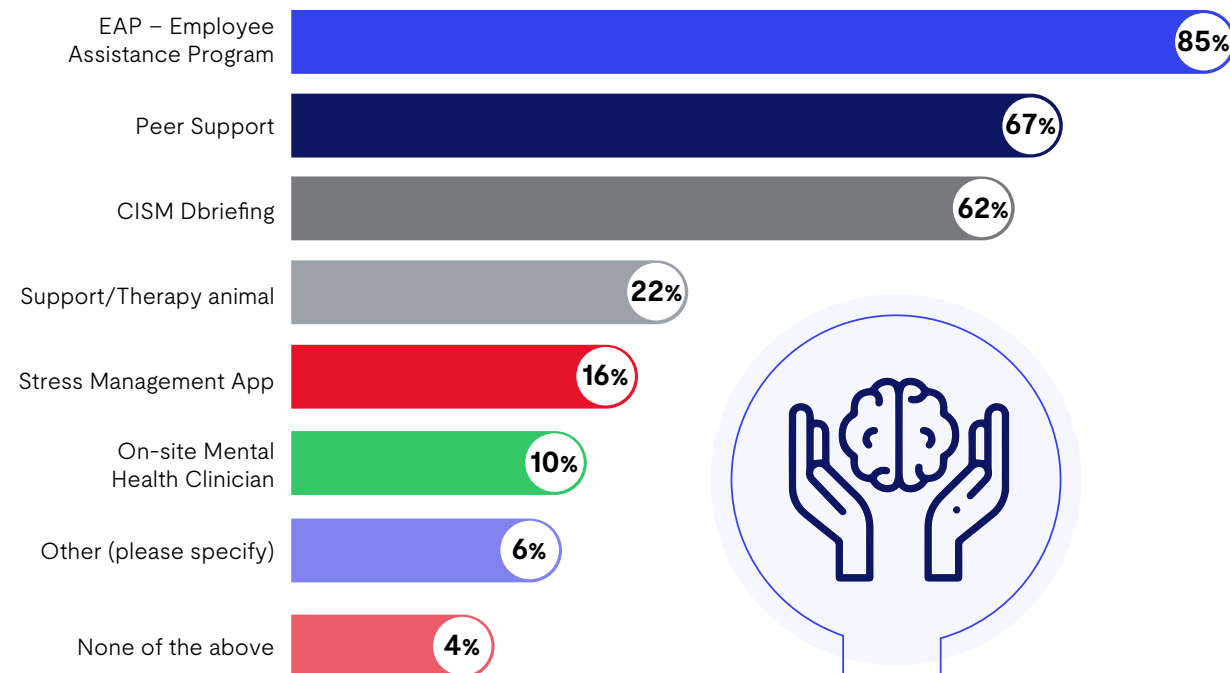
➡ More than **95%** of employers provide some form of mental health support, up from **90%** in 2023.

➡ It is interesting to note the gap between the **61%** of overall respondents who cited the availability of critical incident stress management (CISM) debriefings versus the **77%** of managers who claimed to offer them.

Do you use the Mental Health Services your work provides?

44% YES

56% NO

Overall, **44%** of employees use these services, compared to **34%** in 2023.

- Only **36–43%** of telecommunicators/coordinators/dispatchers use these services, but this is an improvement from last year's **18%**.

- **45%** of young respondents aged 18–29 and **54%** of those aged 60–65 report using these services, an increase in both age groups.

- Only **37%** of those who said they don't use these services said they don't need them, which implies that almost two–thirds of those who don't use these services do think they need them.

- Slightly more women than men use these services (**46%** versus 41).

Of those who responded that they do not use these services:

- Many are concerned about lack of confidentiality within peer support groups and CISM.

- Many say they don't have time in their schedules to seek the help they need. Setting up an appointment takes too long.

> Reaching out for help when you need it is really, really important.
> You can have both a successful home and work, but finding that balance, it takes getting help from other people.
>
> **Dawn Shumway**, President of Idaho APCO and NENA, 9-1-1 Public Safety Communications Manager at Ada County Sheriff's Office.

Q Regarding work, which of the following has applied to you within the past six months?

- Reduced performance and productivity: **26%**
- Anxiety: **53%**
- Detachment: **31%**
- Feeling unenergetic: **49%**
- Depression or feeling blue: **28%**
- Difficulty concentrating: **39%**
- Lack of creativity: **25%**
- Fatigue: **67%**
- Responses Other (please specify): **4%**
- None of the above: **15%**
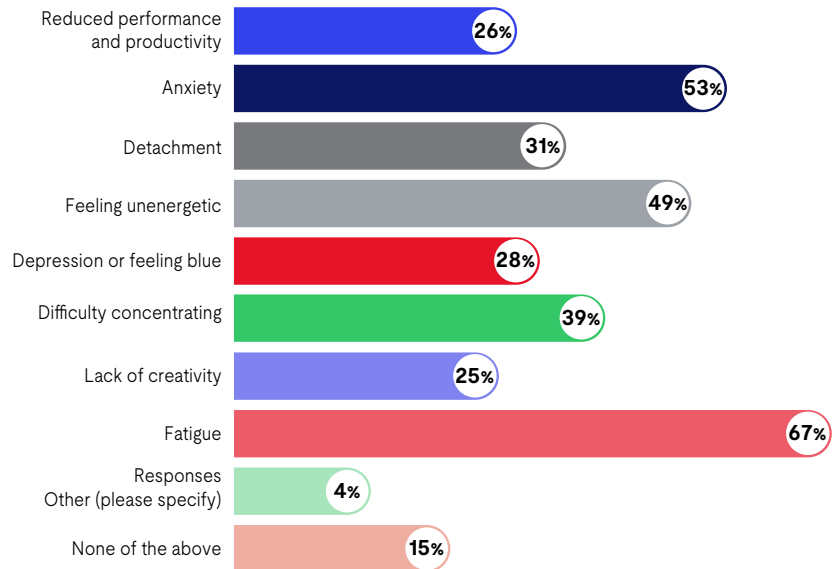
Marking a slight improvement from 2023 to 2024, **14.7%** do not have signs of burnout compared to **13%** in 2023.

- **85%** have one or more symptoms.
- More than **53%** have anxiety, and **67%** feel fatigue.
- There is an equal distribution of symptoms between men and women.

The signs of burnout are not limited to only telecommunicators. Exhibiting at least one sign of burnout are:

- **75%** of Telecommunicators
- **89%** of Dispatchers
- **85%** of Managers
- **85%** of Coordinators
- **88%** of Supervisors
- **72–85%** of Directors

> In conversations with many 9-1-1 directors, we share a common fear that the industry is losing its pool of viable leaders. Our direct reports witness the amount of stress we endure, and they don't want to take our place, which makes succession planning difficult.
>
> **Karima Holmes**, Former Director of the Office of Unified Communications, Washington D.C., and Carbyne's Vice President of Public Safety.

Survey respondents added numerous comments in this section, which we have summarized as:

- Not participating in relationships
- Lack of sleep, joy, sex drive
- Extreme anger with hierarchy
- Frustration with the Director and lack of accountability
- Feeling uninterested in interacting with toxic coworkers
- Exhaustion from lack of breaks due to staff shortages

Q Do you feel stressed about coming to work each day?

68% YES

32% NO

Nearly one in three staffers feel stressed about coming to work each day, even though **87%** stated they love or like their job overall.

34% of women vs **26%** of men feel stressed.

Q Rank the top most stressful parts of your job (One being most stressful)

- **47%** ranked management
- **41%** ranked the calls
- **37%** ranked not enough people to handle the work
- **23%** ranked colleagues
- **22%** ranked direct supervisors
- **8.5%** ranked technology/tools or lack of funding

Ranked in the top two stressors
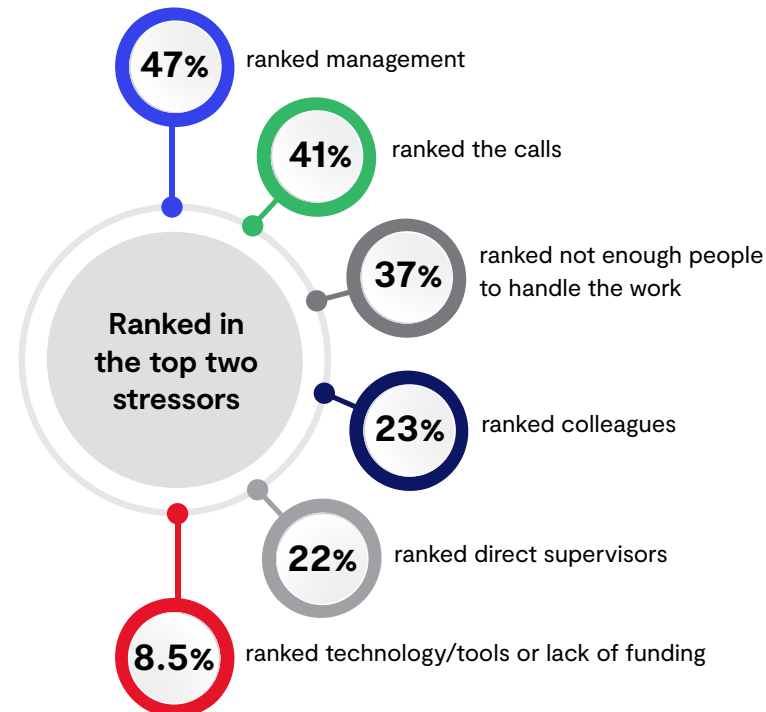
As we saw in 2023, the stressful parts are the people -- those they work with, report to and try to assist. Many directors face extreme pressure, which ripples through the rest of the team. The human element is a major contributor to the stress. However, an additional leading cause of stress is, as noted previously, the lack of sufficient staff to answer all the calls.

What is your marital status?

61% Married

22% Single

4% Domestic Partner

12% Divorced

1% Widowed

24% of respondents stated that the work affected their marital status:

➡ **25%** of women said the job affected their marital status.

➡ **19%** of men said the job affected their marital status.

Even many respondents who are now married report that they were divorced or contemplated divorce multiple times due to stress and shift work, particularly during holidays. These figures clearly show that while marital stress is an issue for many staff, women particularly struggle to maintain their work–life balance.

Married employees more likely hold senior roles. **80%** of management are married or have a domestic partner versus **65%** overall.

Did the job affect your marital status?

24% YES

76% NO

Overall, **65%** of respondents are married or have a domestic partner. When these numbers are analyzed by gender:

➡ **61%** of women have a spouse or partner.

➡ **74.5%** of men have a spouse or partner.

➡ Women respondents are three times more likely to be divorced than men.

How (did the job affect your marital status)?

How People Feel

9%   **27%**   **62%**

☺ Positive: 9%   😟 Neutral: 27%   ☹ Negative: 62%   ？ Undetected: 2%
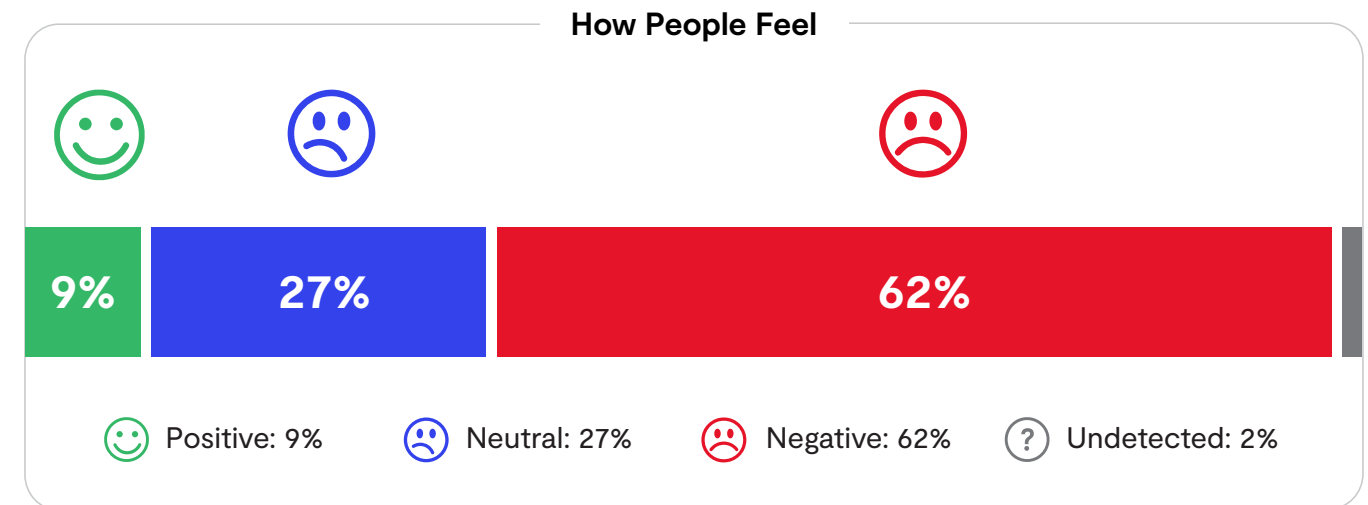
Section 5

Training and Preparedness

Overall, **50%** of new trainees fail their probation. These percentages swing significantly in different directions based on the size of the center. **90%** of trainees at small centers (fewer than ten employees) are nearly three times more likely to pass their training than their peers at large centers (30+ employees). Larger centers often have more robust and extensive training programs, which are necessary to handle the more complicated and numerous challenges of major cities. However, these larger centers see higher fail rates with more training and longer probationary periods.

Another area of interest revolves around staff training and preparedness. It is startling to discover that fewer than half of the respondents felt adequately equipped to handle any incident. A substantial number feel ill-prepared to manage not only highly critical situations – such as active shooter scenarios, where approximately **33%** felt underprepared, or bias-related events, which **16%** were uncomfortable managing – but also regular, day-to-day incidents. Between **10%** and **15%** confessed to lacking sufficient training for handling incidents such as traffic accidents, medical calls, disorderly conduct, and structure fires.

Q **Do you have a new hire training program?**

95% YES
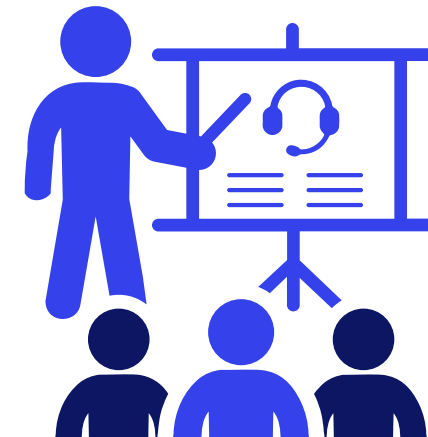
5% NO

Q How long does it take to train new employees?

Category	Value
1 month or less	2%
>1 month to 4 months	28%
>4 months to 9 months	46%
>9 months to 18 months	20%
>18 months	4%
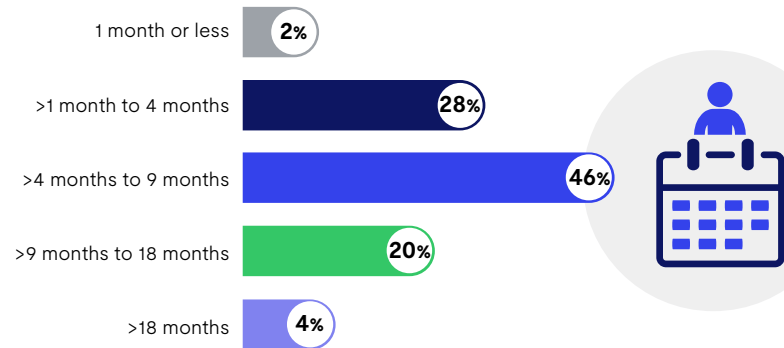
➡ More than **50%** of employees at small centers complete their training within 4 months, compared to **29%** at mid-sized and **25%** at large centers.

➡ More than **92%** of employees at small centers complete their training within 9 months, compared to **83%** at mid-sized and **60%** at large centers.

Q What percentage of new employees fail your center's training program?

Category	Value
Less than 10%	29%
11-20%	21%
21-50%	29%
50% +	17%
Other (please specify)	4%
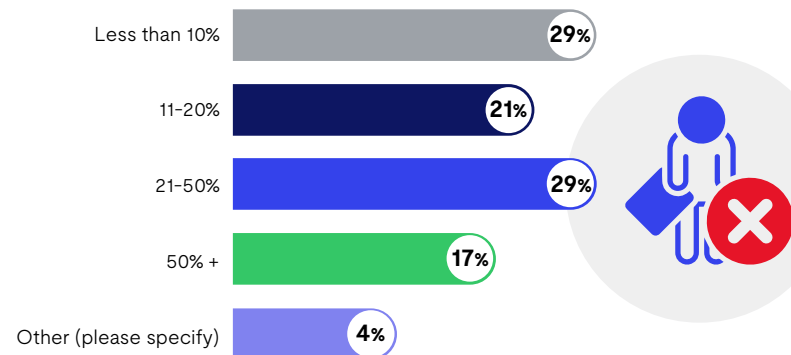
➡ **57%** of respondents from small centers (one in ten employees) report that fewer than 10% fail their training programs

➡ **32%** of mid-size centers report that fewer than **10%** fail their training programs

➡ **21%** of respondents from the largest centers (31+ employees) report that fewer than 10% fail their training programs

" Respondent Quotes

→ We are finding fewer applicants than before the pandemic. Many applicants can't pass the pre-hire test.

→ Many applicants received conditional job offers but didn't pass the background process. "

Q In your opinion, does your center's training program adequately prepare new employees for the job?

71% YES

29% NO

Q Which of the events listed do you feel inadequately trained to handle?

Event	Value
Active shooter	38%
Swatting calls	31%
Mental health events	21%
Suicidal callers	21%
Civil disturbances	12%
Bias-related events	9%
Structure fire	8%
Medical calls	7%
Domestic violence	7%
Disorderly persons/ conduct	5%
Responses Other	5%
Traffic accident	3%
None of the above	38%

➡ Only **37.5%** feel adequately trained to respond to most crises. The larger the call center, the greater the feeling of inadequacy (**44%** in ECCs with 50+ employees versus **31%** in ECCs with 1-10 employees).

➡ 1 in 3 telecommunicators don't feel trained to handle an active shooter or a swatting call, particularly those in small centers.

➡ 2 in 5 telecommunicators are unsure of how to handle a suicidal caller or mental health event.

➡ 5 respondents referred specifically to feeling insecure about handling a bomb threat or terrorist attack.

" Respondent Quotes

→ Mental health calls have been out of control in the last year, and they take a heavy toll on our staff. The issue is not having the correct responders to send to them or responders who refuse to handle them. "
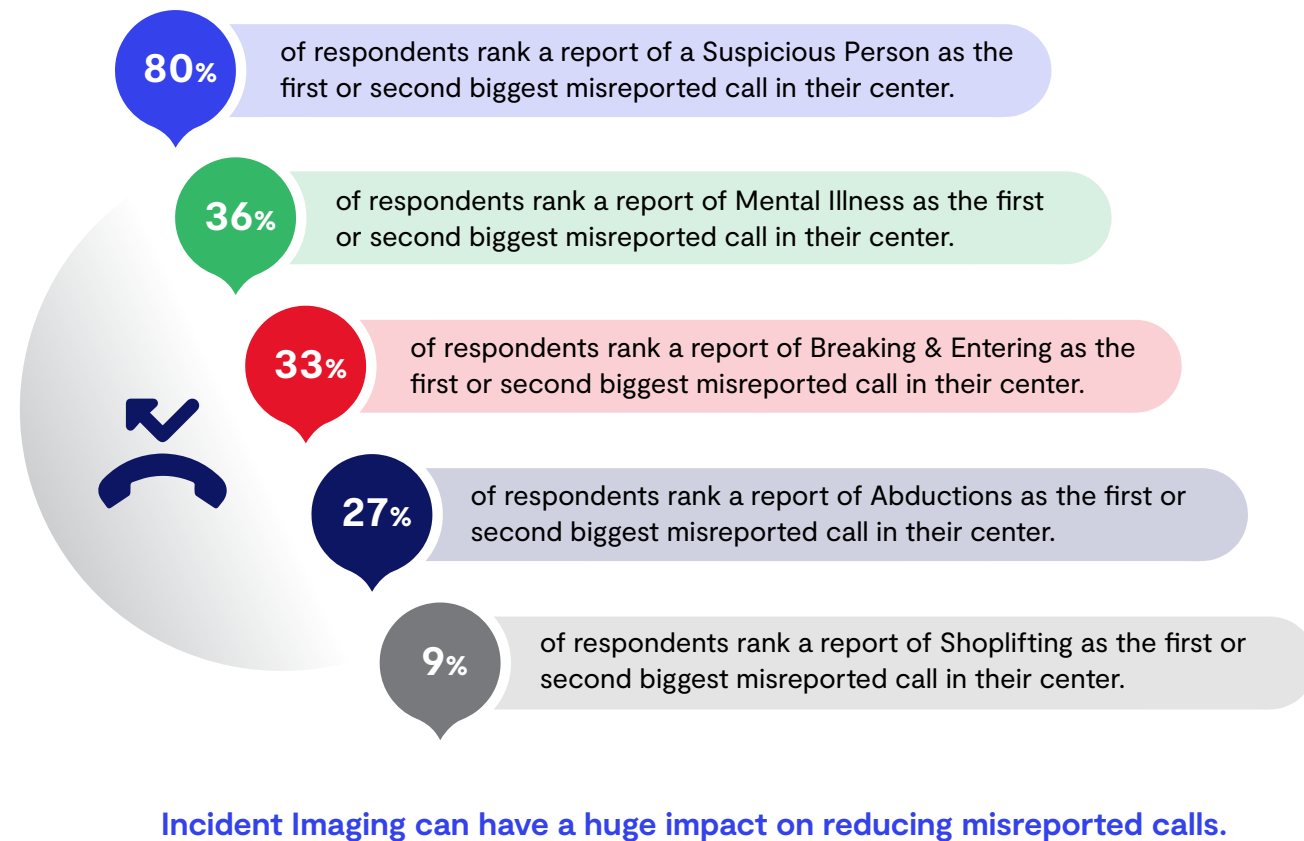
If a caller insists on a field-unit response no matter the situation, do they get one?

82% YES

18% NO
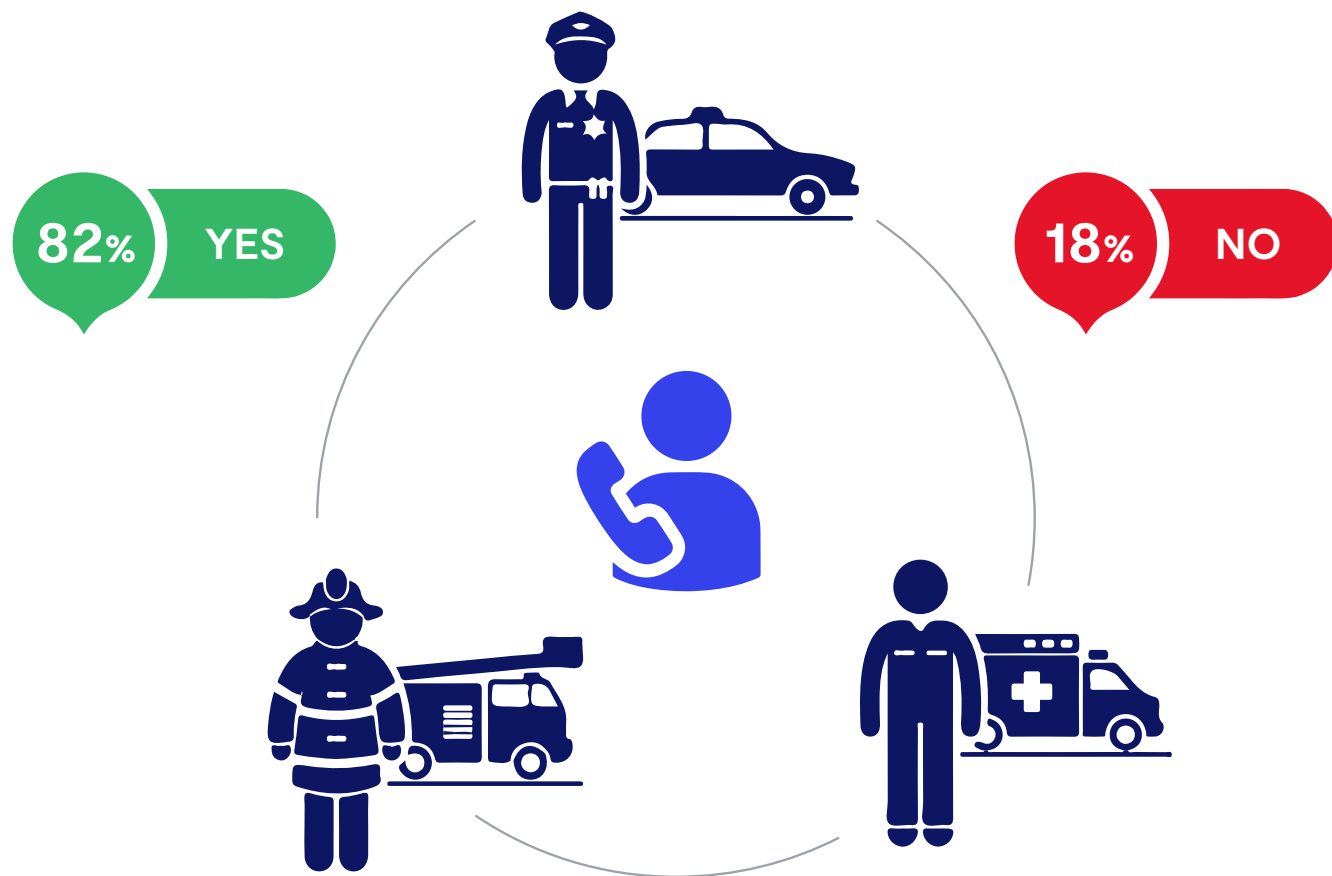
Note: Respondents note that the reason for sending a field unit when one is requested is likely due to the enforcement of a legal policy.

Q Please tell us which event is misreported most often

80% of respondents rank a report of a Suspicious Person as the first or second biggest misreported call in their center.

36% of respondents rank a report of Mental Illness as the first or second biggest misreported call in their center.

33% of respondents rank a report of Breaking & Entering as the first or second biggest misreported call in their center.

27% of respondents rank a report of Abductions as the first or second biggest misreported call in their center.

9% of respondents rank a report of Shoplifting as the first or second biggest misreported call in their center.

Incident Imaging can have a huge impact on reducing misreported calls.

Section 6

Diversity, Equity & Inclusion

The Diversity, Equity, and Inclusion (DEI) section of our survey focused on assessing the perceived diversity and inclusivity within 9-1-1 centers and the communities they serve. The findings offer a nuanced view of the current DEI landscape in these centers.

While respondents generally feel their workplace is diverse and inclusive, the same sentiment does not extend to their perceptions of management. Indeed, **49%** of staff do not perceive the executive team as diverse. This suggests a potential disconnect between the composition of the broader workforce and the executive leadership.

However, there are positive indications of inclusivity at the workplace level. Although **45%** of respondents believe their workplace is mostly or very diverse, a notable **71%** are comfortable sharing their identity, culture, and background, regardless of their racial background. This suggests a welcoming environment that promotes individual expression, even in less diverse workplaces. Regarding gender, men and women responded similarly, with no discernible differences.

In our multicultural society, English is no longer the main language of communication for many U.S. residents.[2] According to a report issued by the Journal of Prehospital Emergency Care, in the United States, 9-1-1 response times increase by an average of **125%** for callers who don't speak English as a first language.

An interesting finding pertains to the demographic alignment between the communities and the 9-1-1 center. A quarter of respondents believe their center's demographics do not accurately represent the communities they serve. Moreover, it is worth mentioning that nearly **44%** do not reside within the jurisdiction they serve, potentially heightening the demographic misalignment.

2.Hendrika W. Meischke , Rebecca E. Calhoun , Mei-Po Yip , Shin-Ping Tu & Ian S. Painter (2013) The Effect of Language Barriers on Dispatching EMS Response, Prehospital Emergency Care, 17:4, 475–480, DOI: 10.3109/10903127.2013.811565

Q Do you live in the jurisdiction you work for?

56% YES   44% NO

Q Do the demographics of your center mirror those of the community your center serves?

73% YES   27% NO

➔ **44%** (vs. 39% in 2023) do not live in the jurisdiction the serve

➔ **27%** (vs 24% in 2023) feel their center doesn't mirror the community it is assisting

➔ **68%** of Directors live in their own jurisdictions.

Q Do you speak another language other than English?

12% YES   88% NO

Q Do you use multiple language skills at work?

53% YES   47% NO
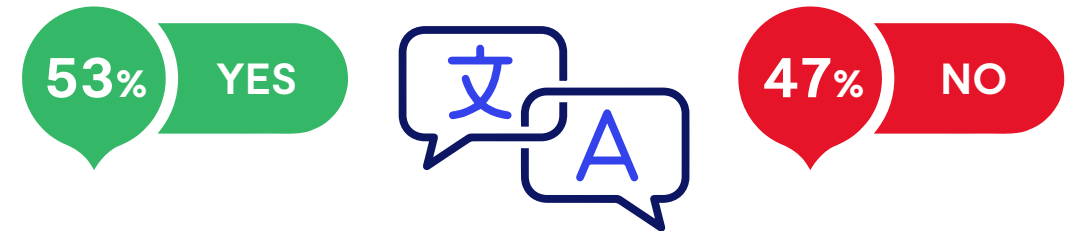
In today's diverse and multicultural U.S. society, language limitations can severely limit communications during emergency calls, when the ability to communicate can mean life or death. Some respondents believe AI-assisted translation technology can help bridge this gap.

➔ **88%** of respondents speak only English.

➔ **75%** of the minority who do speak an additional language speak Spanish. This is only **8.6%** of respondents.

➔ No other language received any significant representation.

> " We take in so many refugees that one of our main languages is Swahili, which is not something people would think of for Idaho. So, we need text translation, and that's not something that we have yet. When you have that AI that can help lift it on these calls, then you can afford the time for customer service on other calls.
>
> **Dawn Shumway**, President Idaho APCO and NENA, 9-1-1 Public Safety Communications Manager at Ada County Sheriff's Office. "

Q Does your center have any of the following language translation services for non-English speaking callers?

93% Live Translation Service

34% Text-to-9-1-1

3% AI based Voice Transcription

1% AI Live Audio

2% Other

➔ **93%** of ECCs rely on a live language translation or in-person staff

➔ 1 in 3 ECCs have Text-to-9-1-1 transcription
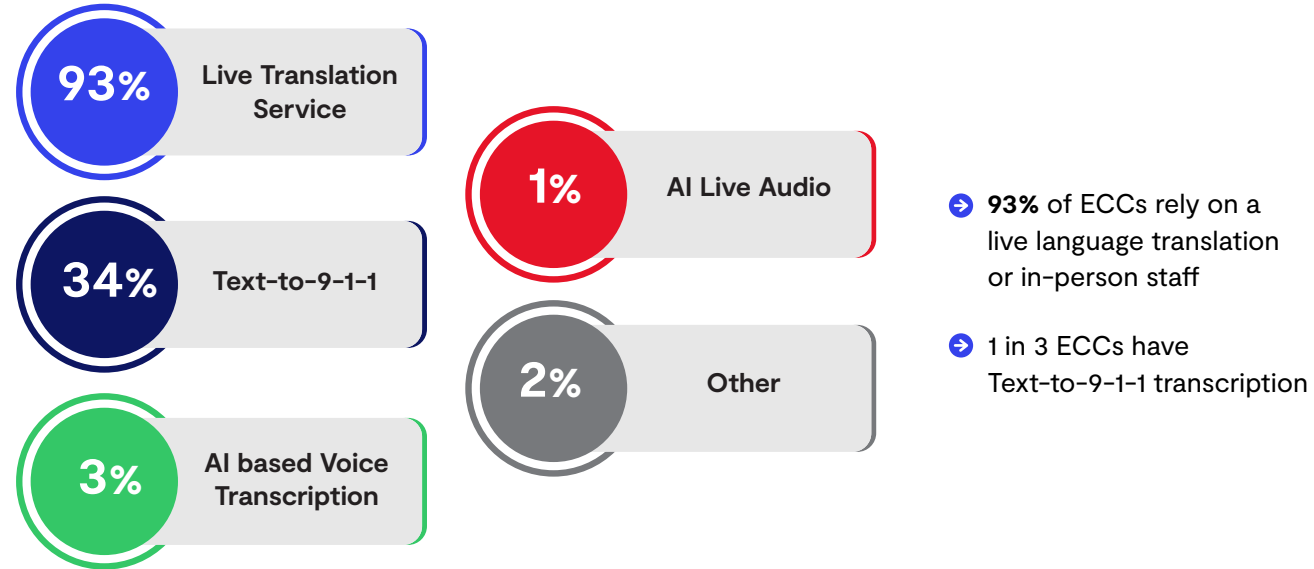
Q In your personal opinion, how diverse and inclusive is your workplace?

46% Somewhat diverse and inclusive

18% Very diverse and inclusive

28% Mostly diverse and inclusive

9% Not diverse or inclusive

➔ **45%** of respondents (compared to **56%** in 2023) feel their workplace is very or mostly diverse and inclusive.

➔ **49%** of respondents (compared to **42%** in 2023) do not feel that the executive team is diverse.

Q Is your executive team (supervisors, managers, directors) diverse?

51% YES

49% NO

Q How comfortable are you sharing your identity, culture, and background in the workplace?

45% Very Comfortable

26% Mostly Comfortable

21% Somewhat Comfortable

8% Not Comfortable At All
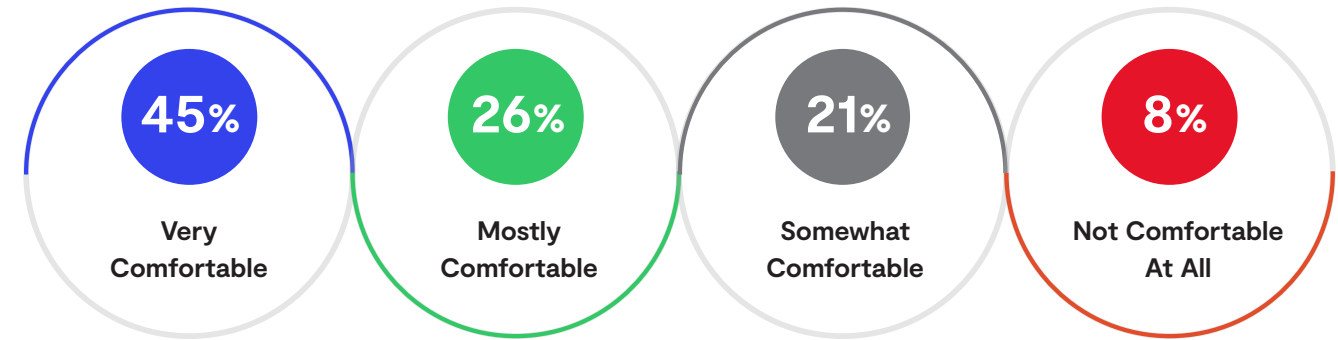
➔ Despite the fact that only **45%** feel their workplace is mostly or very diverse, **71%** are mostly or very comfortable sharing their identity, culture, and background, with no major differences based on race.

➔ Nearly **8%** do not feel comfortable (increasing from 5.5% in 2023).

There was no difference between the responses of men and women.

Demographics

Q **What is your age?**

Everyone

Age	%
60+	5%
50-59	23%
40-49	34%
30-39	27%
21-29	11%
18-20	1%

Senior Management

Age	%
60+	11%
50-59	31%
40-49	41%
30-39	17%
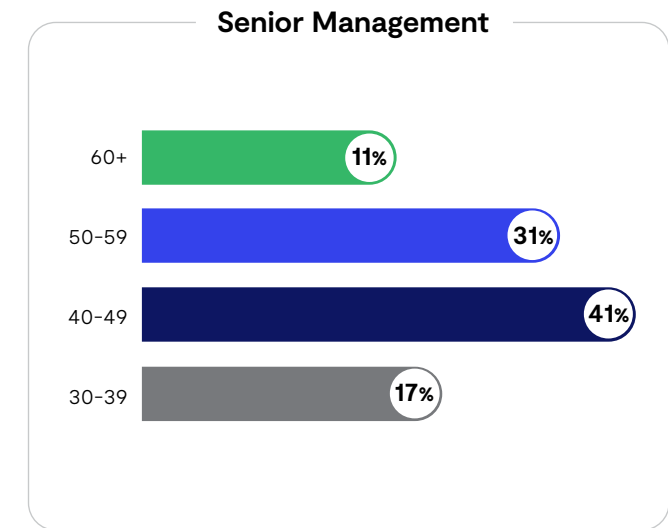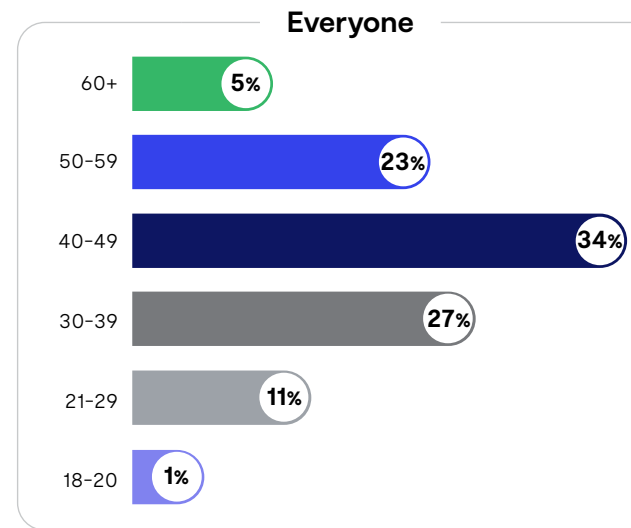
➔ The EEC demographics revealed in the 2024 Pulse Survey are almost identical to last year's. However, there appears to be a shift of roles across ages. For example, managers appear to be getting younger. In 2023, managers aged 40-49 and 50-59 made up **37-38%** of respondents, but this year, **46%** of managers were aged 40-49, and only **27%** were aged 50-59.

➔ At the same time, Deputy Directors are more likely to be older. In 2023, 33% were aged 30-39, compared to only **12.5%** in 2024; while those aged 40-49 increased from **36%** to **43%**.

➔ The main challenge remains: the number of young people joining the 9-1-1 workforce is not nearly enough to replace the number who are retiring and leaving in their 50s. As older, more experienced telecommunicators and managers leave, the industry loses key knowledge experts.

Q What is your gender identity?

70%
Female

2%
Prefer not to stay

28%
Male

0.09%
Non-Binary
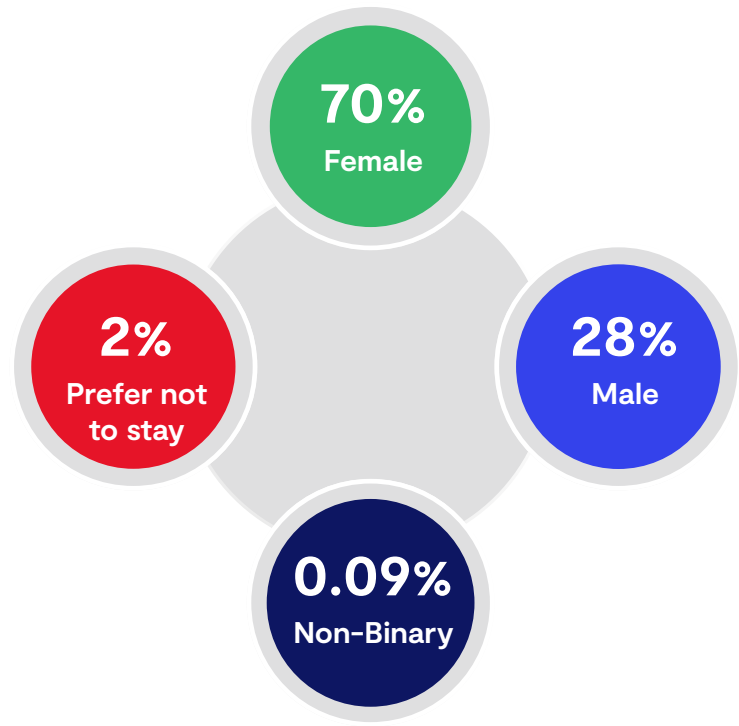
Similar figures to last year:

➡ **70%** are female, accounting for **70%** of Trainees (56% in 2023); **80%** of Dispatchers, **64%** of telecommunicators; and **73%** of Supervisors.

➡ The proportion of women in higher positions shrinks: **57%** are Managers, **56%** are Deputy Directors, and **52%** are Directors.

Q Are you of Spanish, Hispanic, or Latino origin or descent?

9% YES   **88%** NO   **3%** Prefer not to answer

Q Which race/ethnicity best describes you?

87%
White/Caucasion

9.3%
Spanish/Hispanic Latino

3%
Multiple Races

3.4%
Black/African-American

1.4%
American Indian or Alaskan Native

3%
Prefer not to say
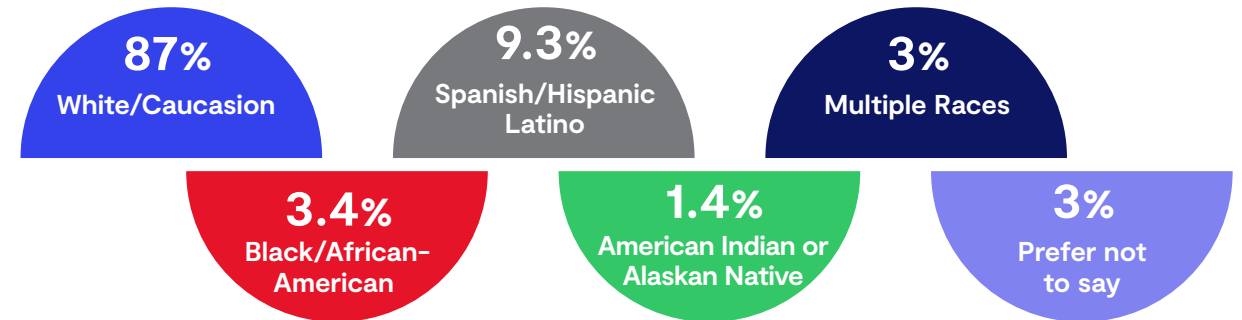
The vast majority of respondents are White.

➡ **87%** (75% in 2023) White/Caucasian workforce (90% in management)

➡ **3.4%** (8.3% in 2023) Black/African-American (2.3% in management). This may be due to the increased survey response from regions with different demographics. However, it should also be considered in parallel to the worrying decrease in respondents who feel their workplace is diverse and inclusive.

➡ There is a slight increase in Spanish/Hispanic Latino respondents - **9.3%** compared to **8.7%** in 2023 (5.3% in management).

➡ Very few other ethnicities were cited.

Conclusion

The 2024 Pulse Survey reveals a variety of pressing issues in the 9-1-1 industry, primarily recruiting challenges due to modest wages and high stress, contributing to significant wellness/mental health concerns. Staffing shortages are a prime problem, compounded by job stress and low salaries, making talent attraction and retention challenging.

Wellness/Mental health remains a substantial worry in this high-stress environment. Stress, burnout, and anxiety are pervasive at all levels. Despite most employers offering wellness/mental health support, stigma and under-utilization of these resources suggest a need for more proactive approaches to wellness/mental health.

We analyzed Diversity, Equity, and Inclusion (DEI) within 9-1-1 centers and their communities. The results show room for improvement in demographic alignment and staff preparedness. This implies a need for better workforce representation and training enhancements to improve incident response capacity. The survey also reveals a DEI dichotomy in the workplace. While most staff appreciate an inclusive environment, there is a perceived lack of diversity in leadership, signaling potential areas for DEI enhancement.

Despite these challenges, the potential of technology and cultural transformation to improve 9-1-1 performance is widely acknowledged. Even the most skeptical admit that technological solutions could ease the workload on frontline personnel. Innovations like Geolocation Services, Video/Photo, Silent Texting, Call Triaging, and AI-based Language Translation/Transcription tools are viewed as valuable resources for enhancing service efficiency.

Management plays a crucial role in driving cultural change, attracting new talent, and nurturing and supporting existing staff. This is particularly true given that this survey identified relationships with management as a significant stressor. By leveraging technological advances, leading transformative shifts in culture, and actively advocating for occupational reclassification and federal funding, management could effectively initiate a crucial evolution in the 9-1-1 sector, fostering an environment that is more supportive and appealing to all employees.

Methodology

In February of 2024, NENA and Carbyne surveyed a random sample of (1,335 – 88 N/A) 1,247 Emergency Communications Center personnel across North America, including the United States and Canada. The respondents included dispatchers and telecommunicators, managers and shift supervisors, Assistant Directors and Directors, and Deputy and Sheriff titles.

About NENA: The 9-1-1 Association

NENA: The 9-1-1 Association empowers its members and the greater 9-1-1 community to provide the best possible emergency response through standards development, training, thought leadership, outreach, and advocacy. Our vision is a public made safer by 9-1-1 services delivered by highly trained emergency-communications professionals and powered by the latest technologies. Learn more at **nena.org**

About Carbyne

Carbyne (Headquartered in New York, NY) is a leading global provider of cloud-native mission-critical contact center solutions. Carbyne is one of the largest rich-data providers for emergency response centers, delivering over 250M data points per year, all in a unified platform. Our technologies enable emergency contact centers and select enterprises to connect with callers as well as connected devices via highly secure communication channels without needing to download a consumer app. With a mission to redefine emergency collaboration and connect the dots between people, enterprises, and governments, Carbyne provides a unified cloud-native solution that provides live actionable data that can lead to more efficient and transparent operations and ultimately save lives. With Carbyne, every person counts. Learn more at **carbyne.com**

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