Factor Rating Interpretation Guide
Stress

What is Stress?

Stress measures the feeling of emotional strain or pressure over the past month. Stressed individuals may feel unable to predict or influence valued and prominent aspects of their lives.[11]

The following items are used to assess *Stress* on the DEOCS using a four-point response scale from *Never* to *Often*:

- In the past month, how often have you felt nervous or stressed?
- In the past month, how often have you felt that you were unable to control the important things in your life?
- In the past month, how often have you been angered because of things that were outside of your control?
- In the past month, how often have you found that you could not cope with all of the things you had to do?
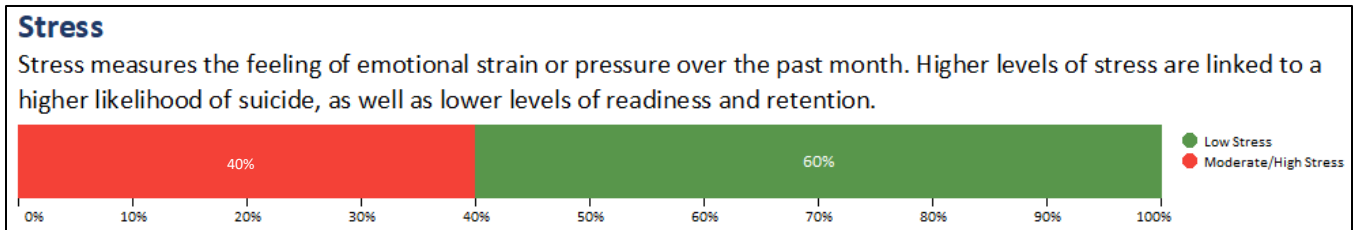
Why is it important?

Research has shown that *Stress* within a military environment can cause significant health hazards in the military work environment which can cause poor performance, increased turnover intentions, and greater likelihood of suicidal ideation.[1] A survey focused on U.S. military personnel found that work *Stress* was significantly related to poor work performance, more days of missed work, and poorer physical health. These results support accumulation of *Stress*, indicating that work *Stress* is a significant occupational health hazard in the routine military work environment.[2] *Stress* is also associated with lower worker retention.[3,4] More specifically, DeTienne et al.[5] found that certain types of workplace stressors—such as interpersonal or those pertaining ethical conflicts—are associated with increased turnover intentions.

Numerous studies also link *Stress* to suicidal ideation.[6,7,8] For example, a 2017 study of National Guard soldiers returning from deployments in Iraq and Afghanistan found that increased levels of perceived *Stress* were a contributing factor to increased risk of suicide.[9] Similarly, a 2011 study examined stressors related to readjustment post-deployment predicted higher risk of suicidal ideation among Army Reserve veterans returning from Iraq.[10]

For more information on how to review your DEOCS results with these key outcomes in mind, please see the "Strategic Target Outcome Guide" in the Quick Links menu of the DEOCS dashboard.
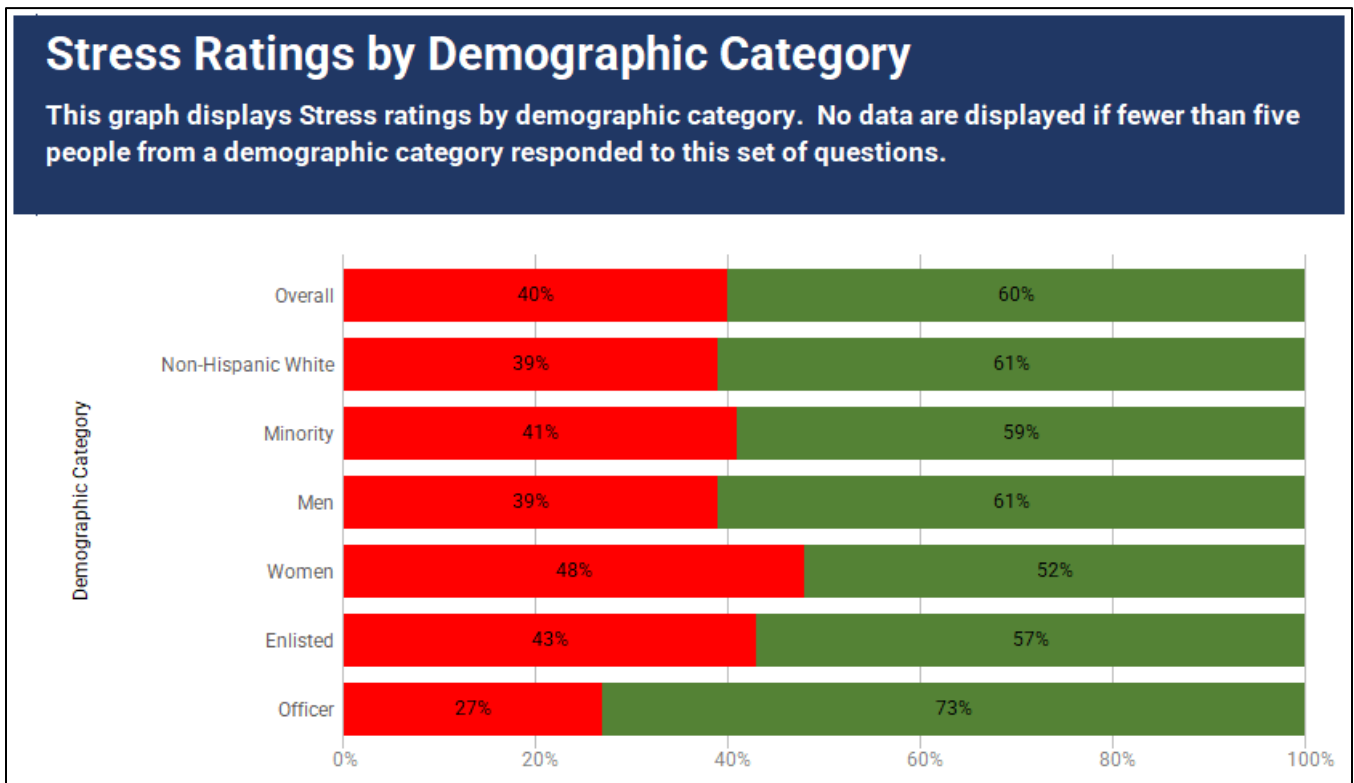
How do I read my factor ratings?

The DEOCS dashboard displays results for *Stress* in a stacked bar graph showing ratings for **Moderate/High Stress** and **Low Stress.** Because *Stress* is a factor that is measured by multiple questions, you should interpret the results as "X% of responses" (not participants). An example is shown below:

Stress

Stress measures the feeling of emotional strain or pressure over the past month. Higher levels of stress are linked to a higher likelihood of suicide, as well as lower levels of readiness and retention.

| 40% | 60% |

● Low Stress
● Moderate/High Stress

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Unfavorable rating: 40% of responses indicated **moderate or high stress**.

Favorable rating: 60% of responses indicated **low stress**.

For the graph showing results by demographic categories, the percentages represent the percentage of responses from each demographic category that were unfavorable or favorable.

Stress Ratings by Demographic Category

This graph displays Stress ratings by demographic category. No data are displayed if fewer than five people from a demographic category responded to this set of questions.

Demographic Category	Moderate/High Stress	Low Stress
Overall	40%	60%
Non-Hispanic White	39%	61%
Minority	41%	59%
Men	39%	61%
Women	48%	52%
Enlisted	43%	57%
Officer	27%	73%

0%   20%   40%   60%   80%   100%

The first bar will always show the overall results and will be the same percentages that are shown in the stacked bar graph. The next bars will represent various demographic categories for your organization. These results can help determine whether some groups of people in your organization have particularly high or low perceptions of climate factors. In addition, you may have different categories than in the example above. If your organization did not have any participants from a particular demographic category or had fewer than five participants from a particular category, you would not see those categories in your graph. For more information on how the demographic groups are created, please see the "Data Overview" in the Quick Links menu of the DEOCS dashboard.

In this example, the unfavorable ratings (marked in red) can be interpreted as:

- 39% of responses from non-Hispanic White participants indicated moderate or high stress, while 41% of responses from minority participants indicated moderate or high stress;
- 39% of responses from men indicated moderate or high stress, while 48% of responses from women indicated moderate or high stress;
- 43% of responses from enlisted participants indicated moderate or high stress, while 27% of responses from officers indicated moderate or high stress.

The favorable ratings (marked in green) can be interpreted as:

- 61% of responses from non-Hispanic White participants indicated low stress, while 59% of responses from minority participants indicated low stress;
- 61% of responses from men indicated low stress, while 52% of responses from women indicated low stress;
- 57% of responses from enlisted participants indicated low stress, while 73% of responses from officers indicated low stress.

You may also see trends over time for your *Stress* unfavorable rating if there are previous 5.0 surveys with the same unit identification code (UIC) and the same commander/leader.

When applicable, trends over time are available in the dashboard by clicking on this icon: . They also appear in the PDF reports as a table. Even if your report includes trends over time, the results may not be comparable in certain circumstances. It is important to understand differences in roster size and roster composition at different time points as these items may impact comparability of trend results. Take a close look at the number of participants registered, surveys returned, and the response rate for any surveys for which trends are available to report; use caution when comparing trends over time if there are big differences in these numbers between surveys. Other things, such as deployments or changes in policy, may also make trends less comparable. For more information on factor rating trends, please see the "Data Overview" in the Quick Links menu of the DEOCS dashboard.

Finally, you may see an alert for your *Stress* ratings. This means that your unit's/organization's unfavorable rating for *Stress* is **very high** compared to the other unfavorable ratings for this factor in your Service component. When applicable, this alert icon appears in the dashboard inside the "Risk Factors – Unfavorable Ratings" heading; click on the icon to see if *Stress* is listed in the table. The alert icon may also appear in the *Stress* section of the PDF reports. To identify whether your *Stress* ratings receive an alert, cut-off scores were created by rank-ordering all unfavorable ratings for this factor within a Service component. If your unfavorable rating for *Stress* is above your Service component's cut-off score, this icon will appear in your report. There are unique cut-off scores for each factor within each Service component. Because of this, you may notice that some of the factors for which you have an alert have very different ratings. For more information on how these alerts are created, please see the "Data Overview" in the Quick Links menu of the DEOCS dashboard.

How are my unit's/organization's ratings created?

Stress ratings are created by combining responses to four questions from a four-point *Never* to *Often* scale, as shown in the example below.

Stress Questions	Never	Rarely	Sometimes	Often	Total
In the past month, how often have you felt nervous or stressed?	22% (40)	25% (46)	26% (48)	28% (52)	100% (186)
In the past month, how often have you felt that you were unable to control the important things in your life?	39% (71)	24% (44)	22% (41)	15% (27)	100% (183)
In the past month, how often have you been angered because of things that were outside of your control?	32% (60)	25% (46)	27% (50)	16% (30)	100% (186)
In the past month, how often have you found that you could not cope with all of the things you had to do?	48% (88)	25% (46)	18% (33)	10% (18)	100% (185)
	Low Stress		**Moderate/High Stress**		Total responses **740**
	(40+46+71+44+60+ 46+88+46) / 740 = **60%**		(48+52+41+27+50+30+33 +18) / 740 = **40%**		

The table above displays the percentage of responses (and number of responses in parentheses) for each question across the four response options (*Never*, *Rarely*, *Sometimes*, and *Often*). For the first question, 40 participants selected *Never*; this represents 22% of participants that responded to this question (40 / 186 = .215 or 22%).

Note that percentages are calculated out of the total number of participants responding to that question and not the total number of participants taking the survey. Participants can skip questions, so you may notice that total responses to questions vary. In the above example, 186 people responded to the first question so all percentages in this row use 186 as the denominator. 183 people responded to the second question, so all percentages in this row use 183 as the denominator. In addition, factor ratings may not always add to 100% due to rounding.

- The **unfavorable** rating, named **Moderate/High Stress**, is a combination of all responses of *Often* and *Sometimes* from **all four** questions in the *Stress* scale.
  - For this example, 48 people answered *Sometimes* to the first question, while 52 answered *Often*. In addition, 41 people answered *Sometimes* to the second question and 27 answered *Often*, 50 people answered *Sometimes* to the third question and 30 answered *Often*, and 33 people answered *Sometimes* to the fourth question and 18 answered *Often*. In total, 299 responses were either *Often* or *Sometimes* to these four questions (48+52+41+27+50+30+33+18 = 299).
  - To produce an overall score for **Moderate/High Stress** representing unfavorable responses to these questions, the total number of responses (299) is divided by the total number of people who responded to all of the *Stress* questions. 186 people responded to the first question, 183 the second, 186 the third, and 185 the fourth for a total of 740 responses to all

four questions. **This produces a Moderate/High Stress rating of 40% (299 / 740 = .4041).**

- To create the **favorable** rating, named **Low Stress**, the *Never* and *Rarely* responses are combined.
  - For this example, that is 40+46+71+44+60+46+88+46 = 441 total responses of either *Never* or *Rarely*. This total is divided by the total number of responses to all of the questions (441 / 740 = .5959). **This rounds to a Low Stress rating of 60%.**

How do I know if my factor ratings are good or bad?

The DEOCS team is working on a data-driven approach that will help you understand what a rating means for an organization's likelihood of positive or negative outcomes. In the meantime, we recommend using the following strategies to help put your *Stress* ratings into context and understand whether actions should be taken to address high unfavorable ratings:

1. If applicable, review the information in the alert icon ⚠️ to see if your *Stress* ratings are called out. This icon would appear in the dashboard and in the PDF reports if your unit's/organization's unfavorable rating for *Stress* is very high compared to others in your same Service component. You should consider taking action to lower this rating.

2. Look at the Item Summary table on the *Stress* details page to understand which questions may be driving your unfavorable rating. This factor is created from four questions, so compare the percentage of participants who selected *Sometimes* or *Often* to each question. If there are questions that have a higher percentage of participants who selected *Sometimes* or *Often*, these questions are driving a higher unfavorable rating and could help you pinpoint more specific actions to decrease your unfavorable rating for *Stress*.

3. Examine the bar graph showing the overall unfavorable rating for *Stress* and the unfavorable ratings by various demographic groups. Look at each group's rating in relation to the overall unit/organization rating. If any groups have particularly high unfavorable ratings for *Stress*, this could help you plan actions to decrease your unfavorable rating in specific areas of your organization.

1. If applicable, review your *Stress* unfavorable rating trends over time. You can view these trends by clicking on this icon 📈 in the dashboard; they also appear as a table in the PDF reports. Take note if your ratings are going up over time. You may need to take action to reverse this trend.

Scientific Research References on Stress

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