

The Unmonitored Failure Domain: Mental Health

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Storytime

Tomorrow is my last day [REDACTED] and I wanted to say farewell. I've learned so much in my 13 months here, and I leave with fond memories and new friends.

I'm excited to take a sabbatical from corporate life, and to spend a few months focusing on my second book (for anyone curious, [my first book](#) dissected the design of Grindr because I guess I'm sort of a [Grindr historian](#)), travelling, and eating all the cheese one can humanly do.

I made this choice in part because I became aware that I was seriously starting to feel the effects of burnout. I know goodbye emails don't usually discuss this, and I hope you don't mind me using this space to be vulnerable! (I recently delivered a lightning talk on mental health and SREs, so that's the kind of headspace I'm in.) Even if you're not experiencing burnout, there might be a day when someone you know is, and it's great to know how to help.

Here are some symptoms of burnout, from [the Mayo Clinic](#):

- Have you become cynical or critical at work?
- Do you drag yourself to work and have trouble getting started?
- Have you become irritable or impatient with co-workers, customers or clients?
- Do you lack the energy to be consistently productive?
- Do you find it hard to concentrate?
- Do you lack satisfaction from your achievements?
- Do you feel disillusioned about your job?
- Are you using food, drugs or alcohol to feel better or to simply not feel?
- Have your sleep habits changed?
- Are you troubled by unexplained headaches, stomach or bowel problems, or other physical complaints?

You can also use [this quiz to help assess your level of burnout](#).

If you are experiencing burnout, or know someone who is, here are some resources that might help!

Today's Intention

- We are going to dive into the research around work-related stress to learn about how it affects mental health, and apply some ideas from our industry toward improving working conditions for our co-workers, and for ourselves.

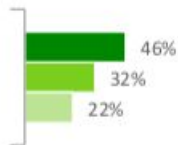
What do we mean by mental health?

- A focus on work-related mental health
- Generally, stress leads to...
 - Anxiety
 - Mood
 - Depression
 - Burnout

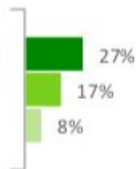
A snapshot



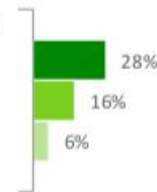
During my workday, I typically feel tense or stressed out.



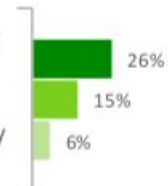
During my workday, I experience physical symptoms, such as shortness of breath, dizziness, muscle spasms, headaches and neck stiffness.



In the past month, the challenges of my job were harder to handle because of mental health problems such as depression, anxiety or other medical health issues.



In the past month, mental health problems such as depression, anxiety or other mental health issues kept me from achieving my goals at work.



■ Millennial ■ Gen X ■ Boomer

BASE: All respondents 2016 Total n=1501; Millennials (18-35) n=381, Gen X (36-51) n=573, Boomer (52-70) n=513

The recipe for stress

While what stresses you is different from what stresses your neighbor, the recipe for stress is universal. So are the ingredients. For a situation to be stressful it must contain one or more of the following elements:

Stress ingredients

THREAT	EMOTIONS
NOVELTY	Something new you have not experienced before
UNPREDICTABILITY	Something you had no way of knowing it would occur
THREAT TO THE EGO	Your competence as a person is called into question
SENSE OF CONTROL	You feel you have little or not control over the situation

Source: CSHS

<https://humanstress.ca/stress/understand-your-stress/sources-of-stress/>

Common factors for burnout

- Work overload: job demands exceed human limits.
- Lack of control: inability to influence decisions that affect your job.
- Insufficient rewards: Insufficient financial, institutional, or social rewards.
- Breakdown of community: unsupportive workplace environment.
- Absence of fairness: lack of fairness in decision-making processes.
- Value conflicts: mismatch in organizational values and the individual's values.

The effect of work-related stress

Burnout leads to:

- Exhaustion
- Cynicism
- Ineffectiveness

“Personal wellbeing significantly predicted not only contemporaneous employee performance, but also subsequent supervisory performance ratings several years in the future.”

How we normally talk about destressing

- Vacation
- Mindfulness
- Meditation
- Exercise
- Controlled breathing
- Sleep better
- Therapy

(Also, listening to Beyonce)



(And pets)



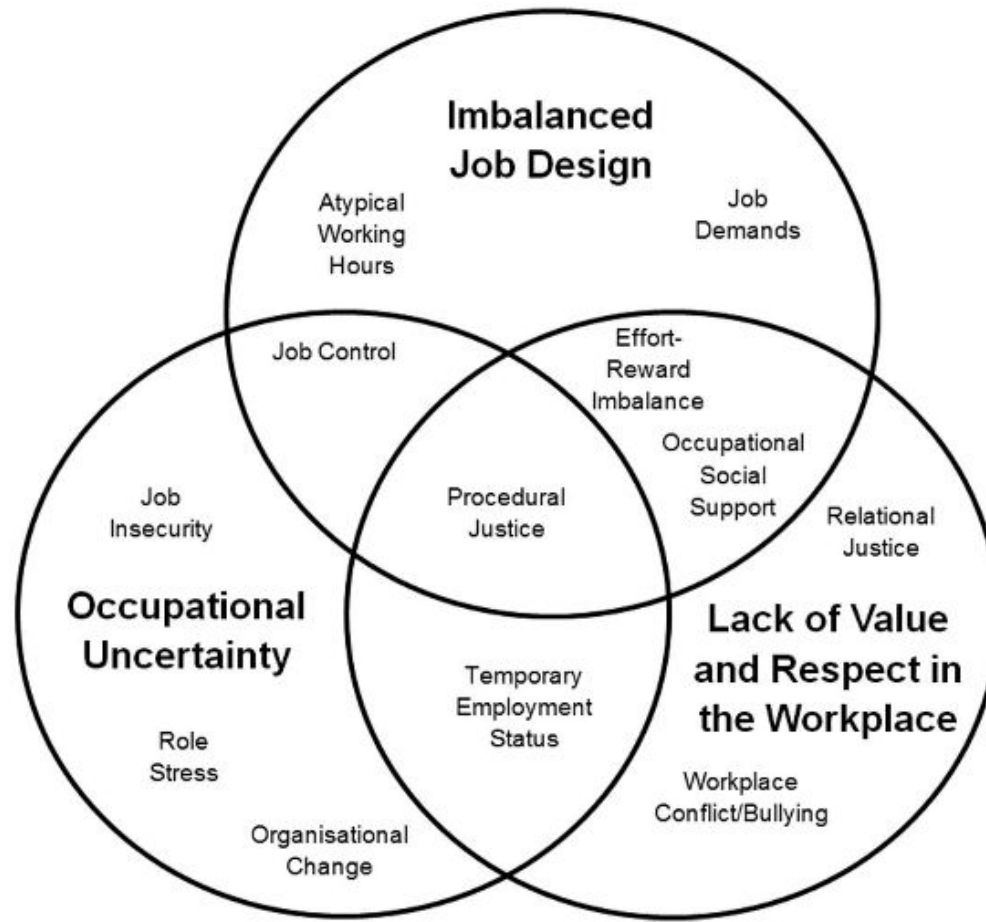
But there's more to the story

“Many workplaces have opted for attempting to enhance their workers’ resilience rather than modifying risk factors.”

Source: Leka, Stavroula & Jain, Aditya. (2017). Mental Health in the Workplace in Europe

Research shows that **situational and organizational factors play more of a role in the workplace than individual ones**, but we focus on the individual because of our ideas of individual causality and responsibility, in addition to the assumption that it is easier and cheaper to change people rather than organizations.

Source: Maslach, C. and Goldberg, J. (1998) Prevention of Burnout New Perspectives. Applied and Preventive Psychology, 7, 63-74

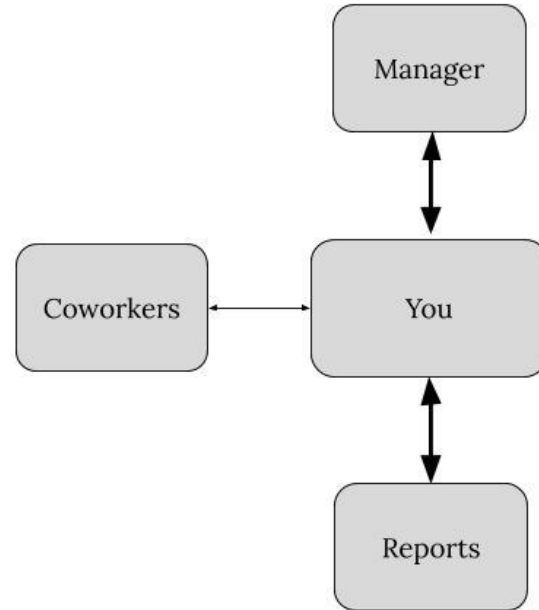


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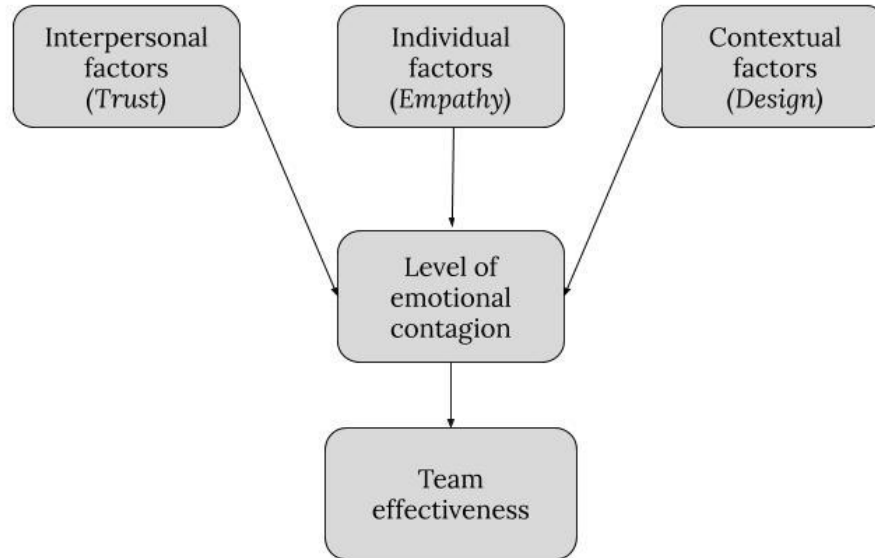
Source: Maslach, C., & Leiter, M. P. (1997). The truth about burnout: How organizations cause personal stress and what to do about it. San Francisco, CA, US: Jossey-Bass.

Emotional contagion



Source: Sy, Thomas & Côté, Stéphane & Saavedra, Richard. (2005). The Contagious Leader: Impact of the Leader's Mood on the Mood of Group Members, Group Affective Tone, and Group Processes. *The Journal of applied psychology*. 90. 295-305.

Emotional contagion



Source: Venkatraman, Vijayalakshmi. (2007). Emotional Contagion and Team effectiveness: A Conceptual Model. International Journal of Management Practices and Contemporary Thought.

SRE techniques

This is a thought exercise. How can we make this model more relatable?

How can we then think about our monitoring?

How often do you get polled for your feedback?

Are there four golden signals around wellbeing?

SRE:

- Latency
- Saturation
- Traffic
- Error

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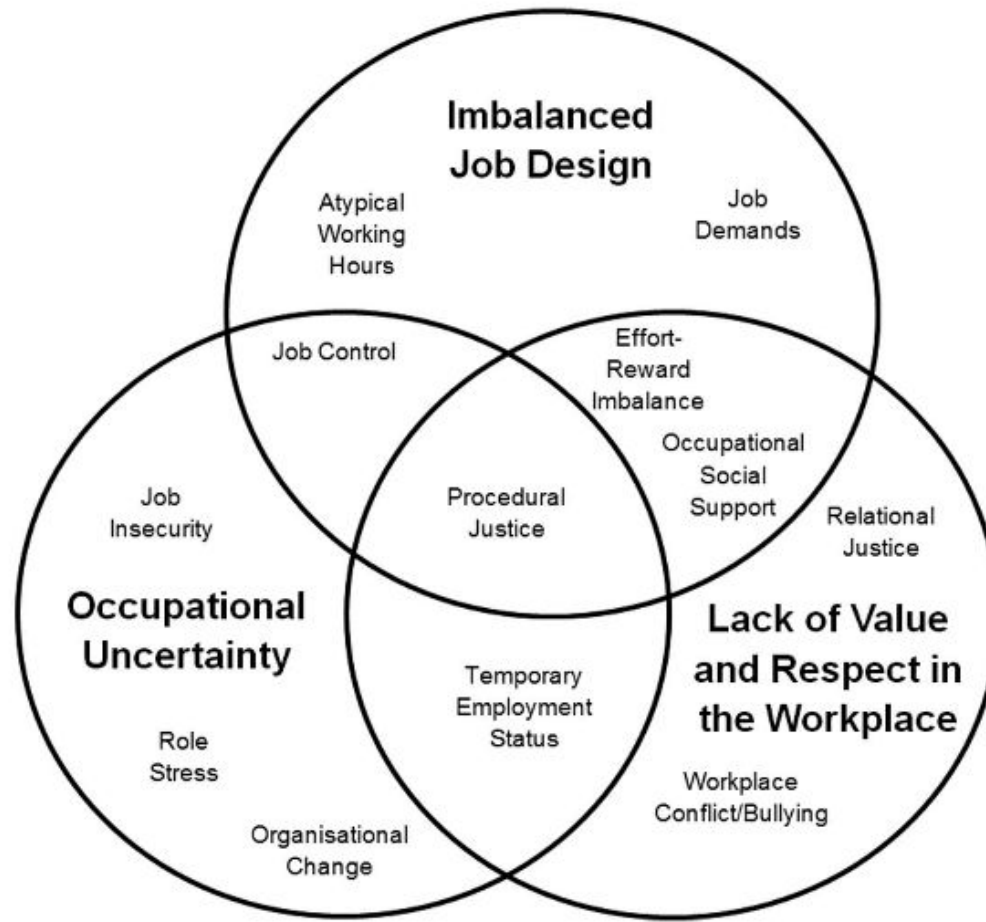
Burnout:

- Cynicism
- Emotional exhaustion
- Chronic negative responses
- Ineffectiveness

What would SLIs and SLOs look like?

What are your indicators?

Maybe we look at job satisfaction.



What specifically makes SRE tougher?

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How about toil?

What specifically affects SRE?

SRE-Time Survey



- Run monthly from June- November 2018
- Average time to complete: 3m
- Some of the comments were the most instructive

Source: “How Bad Is Your Toil?: Measuring the Human Impact of Process”
<https://www.usenix.org/conference/lisa18/presentation/andersen>

@drkurta

What specifically affects SRE?

SRE-Time Matrix

* 5. Last month, please give an estimate of how much time was spent in each of the following categories. The total time spent should total to 100%. Please see definitions below.

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Software Engineering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
System Engineering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reactive Work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overhead	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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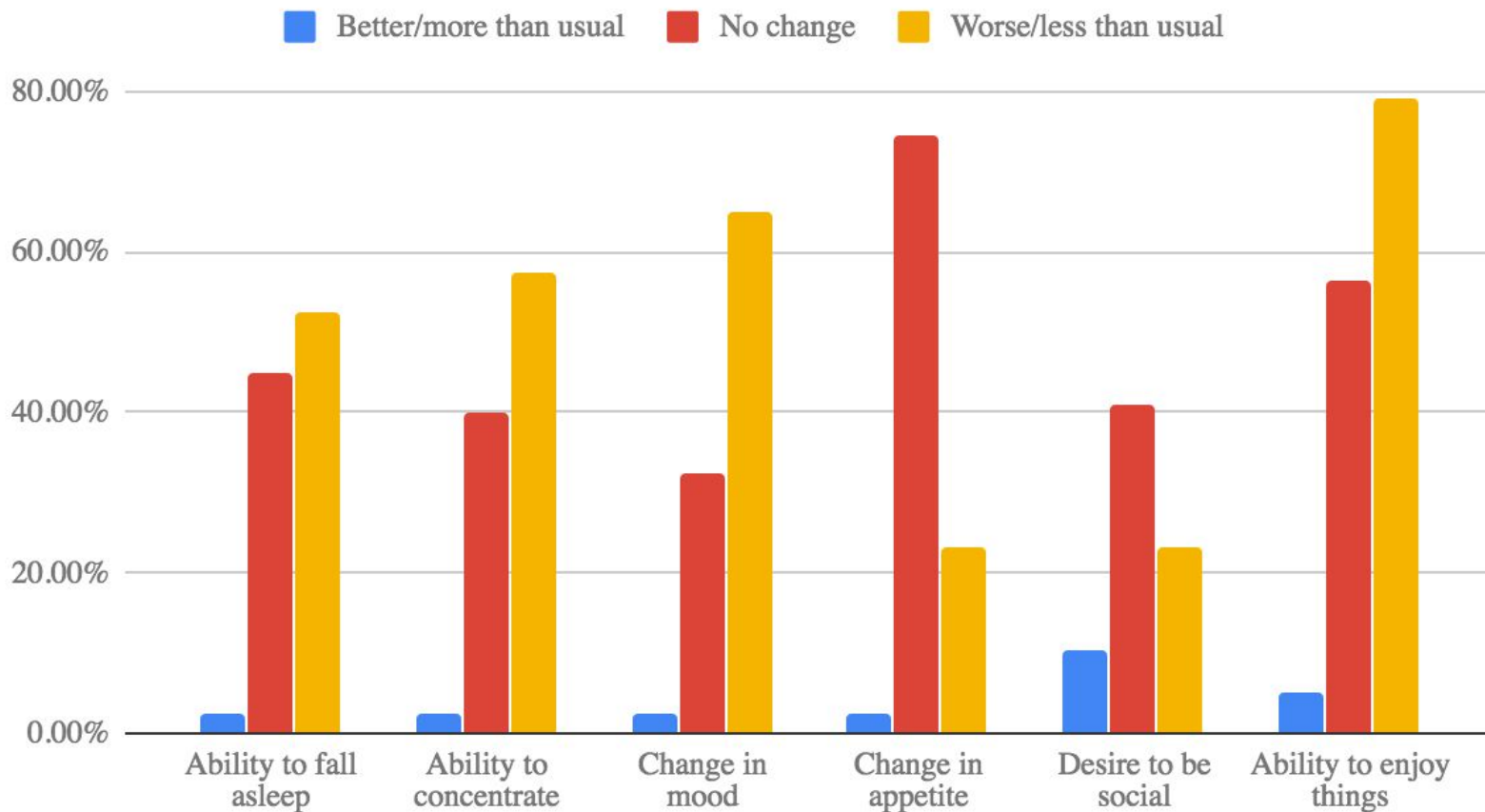
Source: “How Bad Is Your Toil?: Measuring the Human Impact of Process”
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What specifically affects SRE?

What about on-call and incident response?

In the past month, which of the following have you noticed post-incident?



Source: "Your System Has Recovered from an Incident, but Have Your Developers?"
<https://www.usenix.org/node/218910>

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A potential technique

Use an elimination approach, asking which ingredients apply to their stress. Then, write out how the incident response related to the ingredient.

Was the incident novel? If it was, how was it novel? And how could we have made it not new?	<i>For example, game days could make incidents not feel new.</i>
Was the incident unpredictable? If it was, how was it unpredictable? And how could we have made it predictable?	
Did you feel like you had little or no control over the incident? If yes, when did you feel especially little control, and how could we have given you more sense of control?	
Did you feel like others might judge you negatively during the incident? If yes, when did you feel especially vulnerable, and how could we have given you more sense of safety?	

Hero syndrome

Multiple studies have found people who are less likely to discuss their emotional state are more emotionally contagious.

Sources: <https://knowledge.wharton.upenn.edu/article/managing-emotions-in-the-workplace-do-positive-and-negative-attitudes-drive-performance/>
<https://www.mckendree.edu/academics/scholars/englert-issue-25.pdf>
<http://web.media.mit.edu/~tod/media/pdfs/EmotionalContagion.pdf>

Why this all matters

We can't do it all, but at least we can start knowing what we're looking for.

Let's not forget that this goes both ways

We should also be looking at happiness, positive well-being, and job satisfaction.

This is my goodbye slide

Your well-being and mental health matter.

We can figure out how to intentionally create positive effects.

Let's build systems that include humans.

Thank you!

Say hello: jaime@incidentlabs.io

For more Beyonce and Taco: [@jaimewoo](https://twitter.com/jaimewoo)