Soluble

Silicon Valley Chapter ISSA Information Systems Security Association

Kubernetes Security

Doing More With Less In Uncertain Times

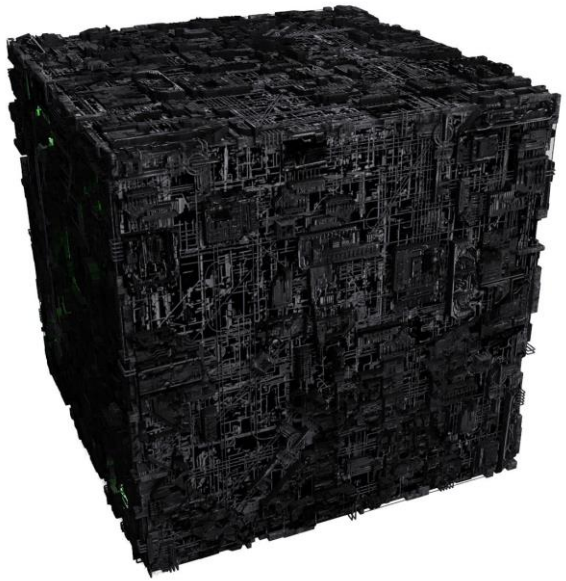
Talk Outline
What To Expect

"And now for something completely different." – John Cleese

1. Why Kubernetes?
2. What's Different, What's The Same?
3. What's Winning For Security Now?
4. A Framework For Winning: BOOM!
5. A Call To Action

Why Kubernetes?
Efficiency & Waste Elimination

"*Necessity is the mother of all invention, boredom is it's father.*" – Shakespeare and bros.



What's Different?
What's The Same?

"The more things change, the more they stay the same." - Jean-Baptiste Alphonse Kar

- A Distributed Systems Toolbox(API)
- With Unrecognizable Primitives!
- Shifts Freedom & Responsibility
- Security Roles Changing

What's Different?
What's The Same?

"The more things change, the more they stay the same." - Jean-Baptiste Alphonse Kar

Attack Surface Generator

- Exposing More Value
- To More People
- Through More Channels
- With Higher Velocity

What's Winning Now?
For Security

"I hate losing more than I love winning." – Billy Beane

Autonomy
And Agency

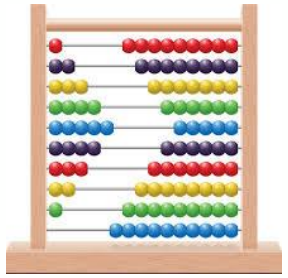
Immediacy Of
Satisfaction

Don't Beat
The Bear

BOOM For Security

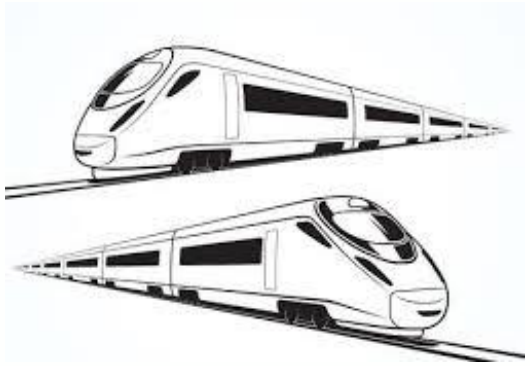
Baseline Objectives and Optimization Measurement

"Measurement is fabulous. Unless you're busy measuring what is easy as opposed to what's important" – Seth Godin

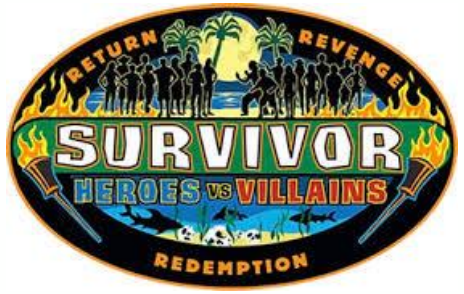


Basic Counts

Burndown Rates



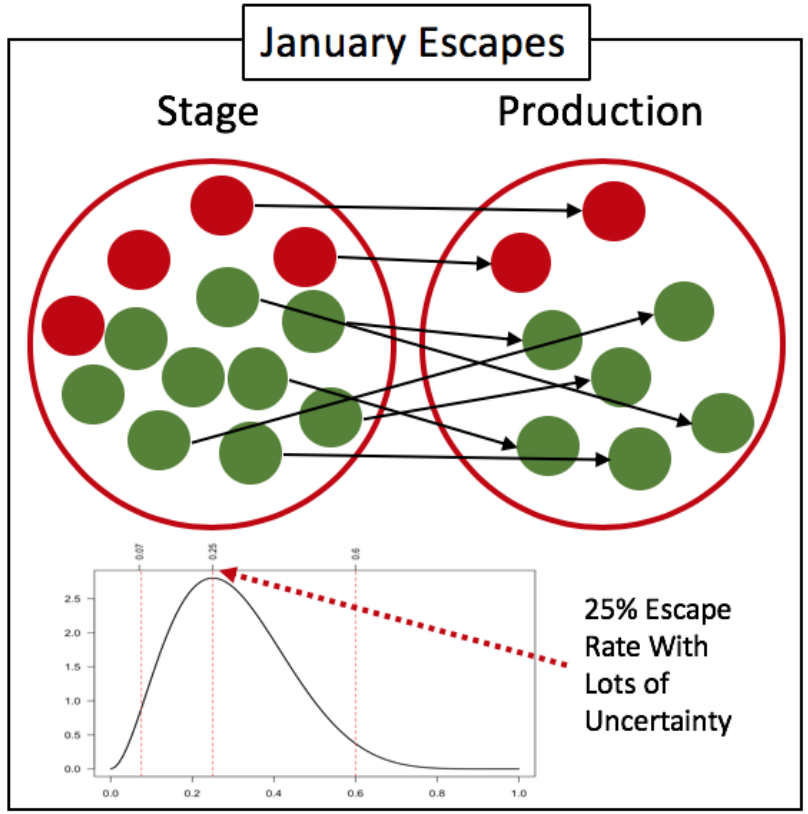
Arrival And Departure Rates



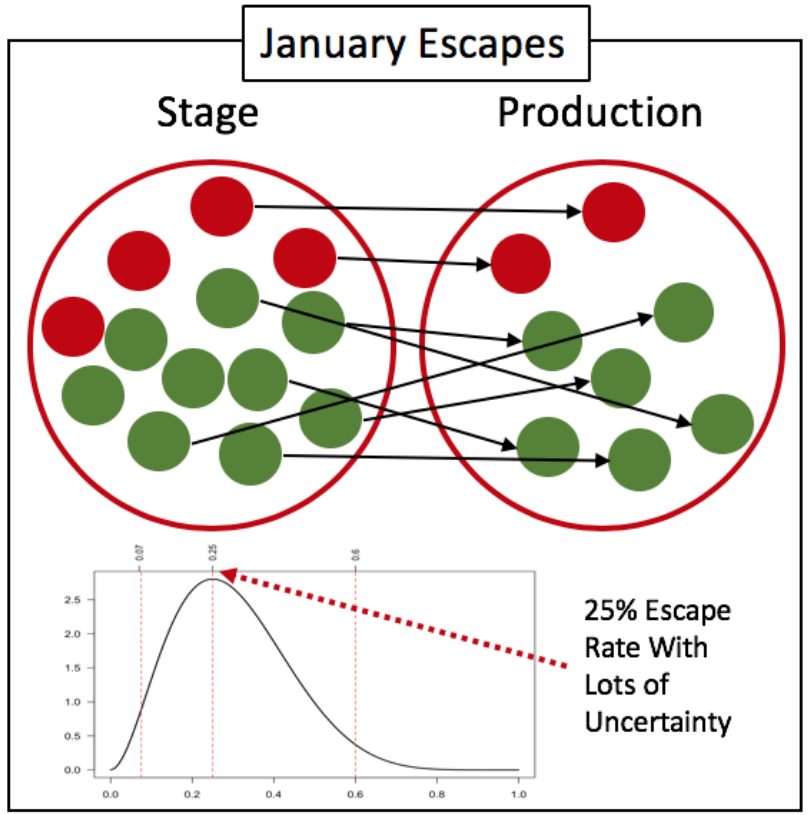
Time To Live Rates

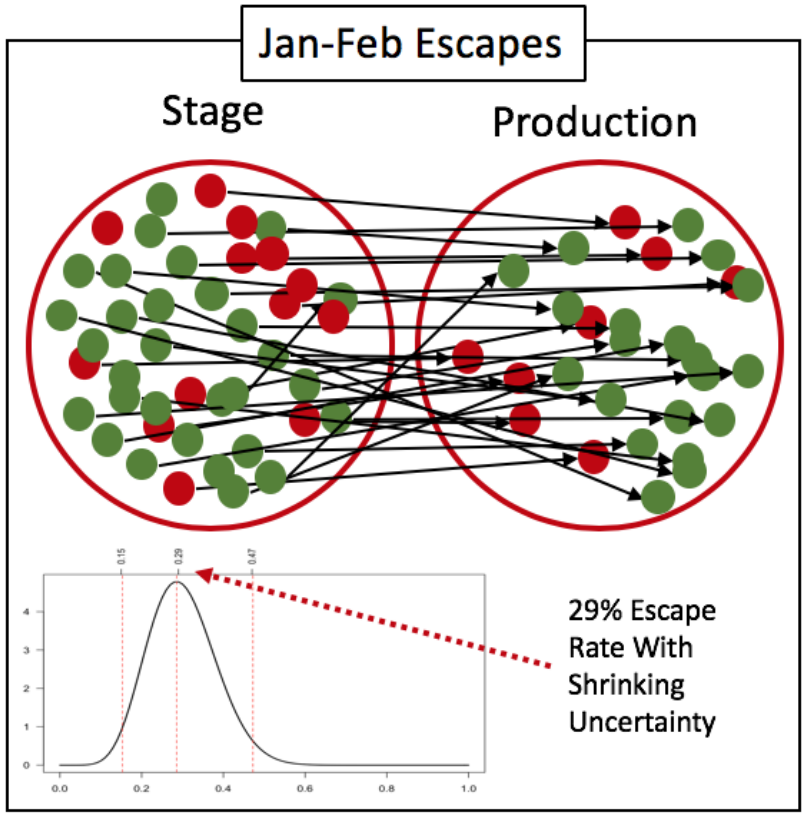
Escape Rates

BOOM For Security
Escape Rates

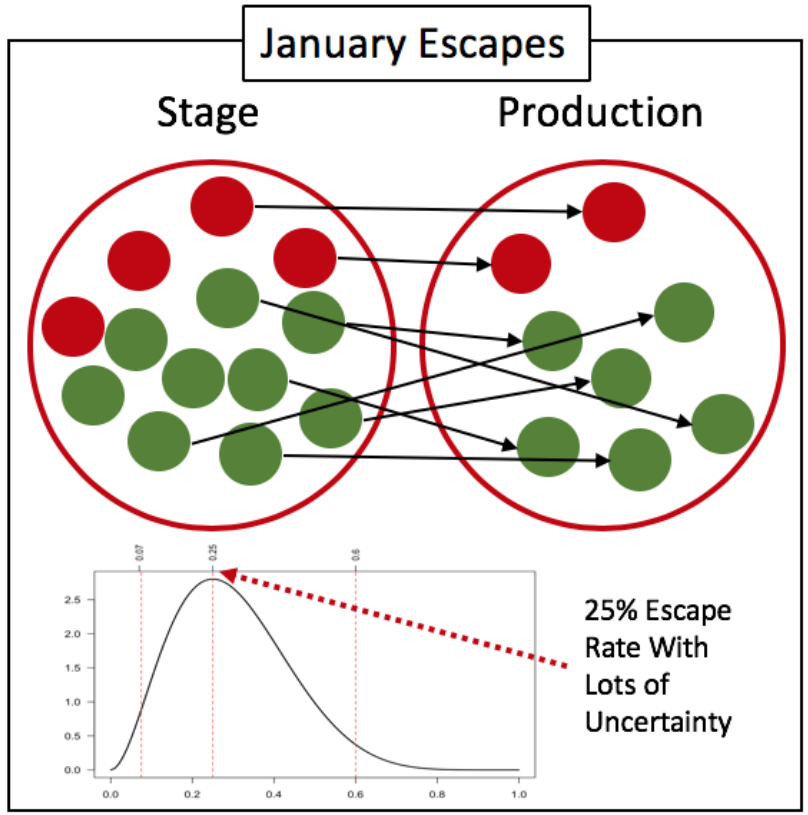


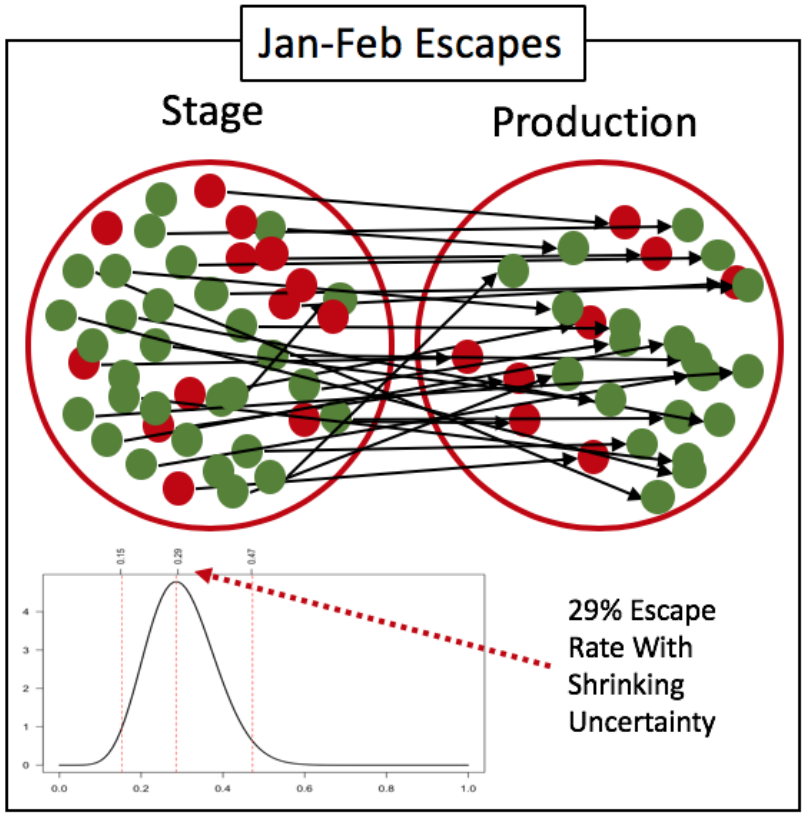
BOOM For Security
Escape Rates

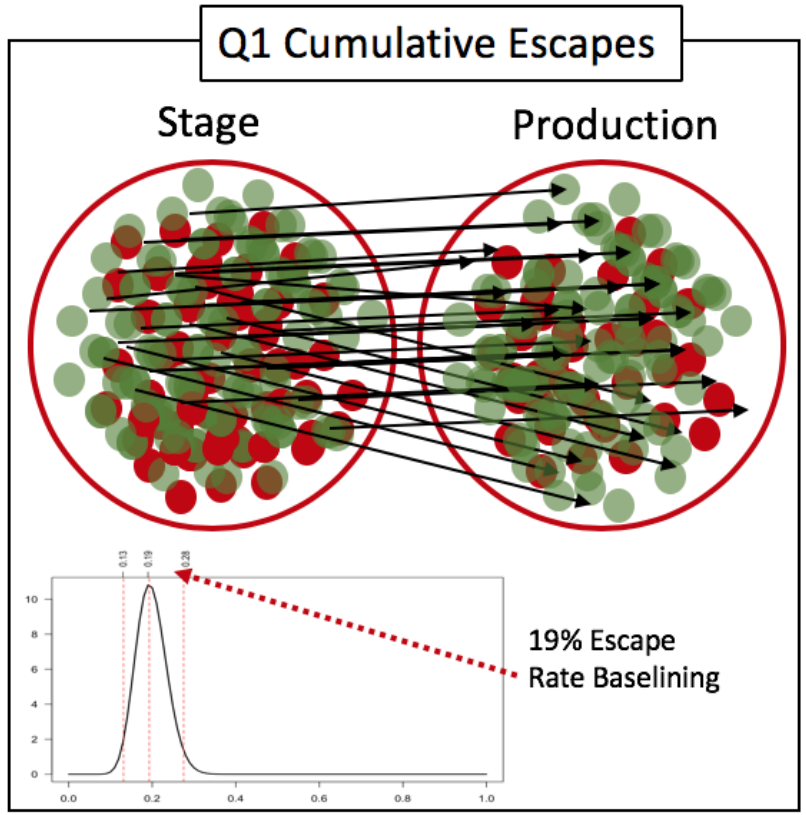




BOOM For Security
Escape Rates





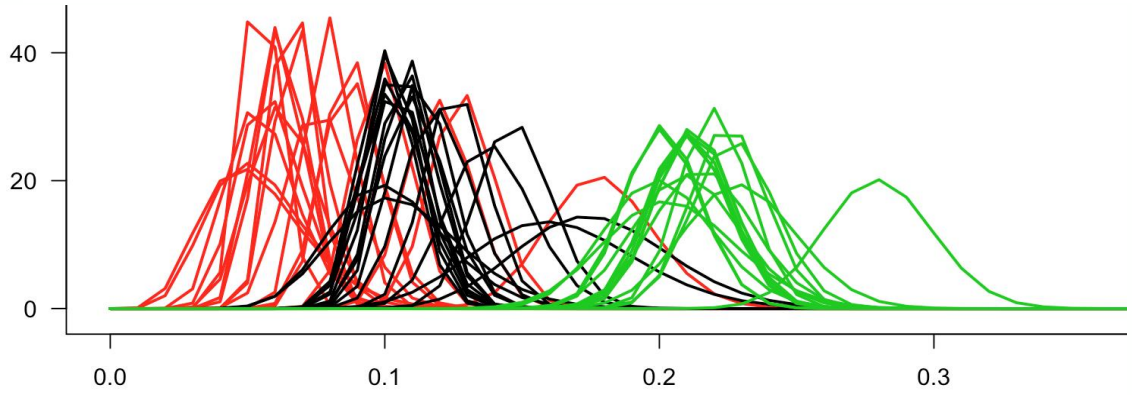


BOOM For Security
Escape Rates

```
#p0 Vulns
extreme.totals <- test.p0 %>% filter(new.expected >= .05)
MakeCurves(extreme.totals, nrow(extreme.totals),2)
```

```
#p1 Vulns
extreme.totals <- test.p1 %>% filter(new.expected >= .10)
MakeCurves(extreme.totals, nrow(extreme.totals),1)
```

```
#p2 Vulns
extreme.totals <- test.p2 %>% filter(new.expected >= .20)
MakeCurves(extreme.totals, nrow(extreme.totals),3)
```

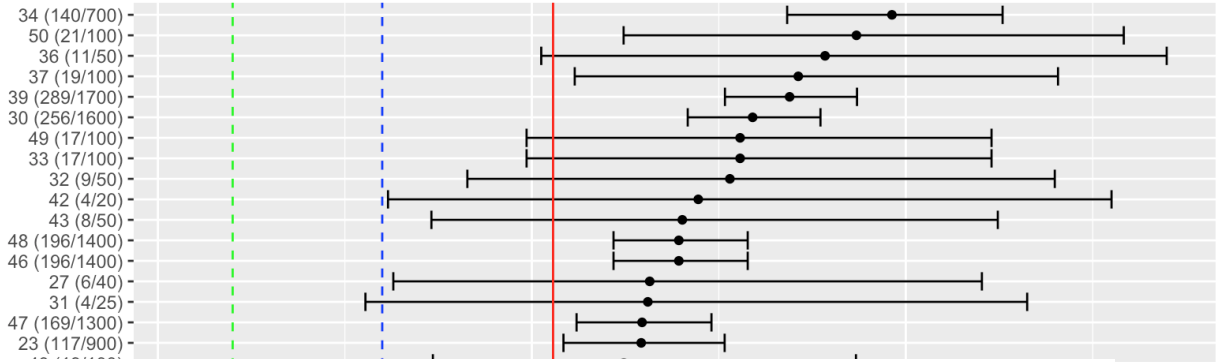


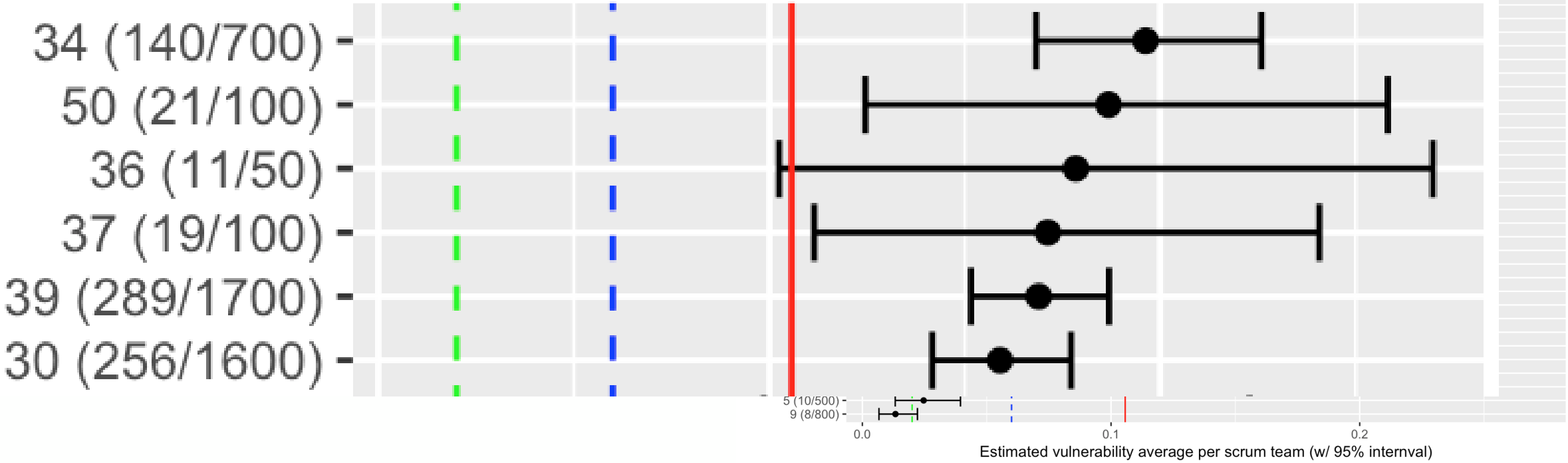
Observations:

- Escape Rate is a DevOps Metric.
- We use rate as a policy to beat
- We can score the strength of relationships between capabilities and rates.
- Optimization is doubling down on relationships that matter and eliminating those that don't

BOOM For Security
Escape Rates

- A scrum team is like a ball player, they can





Call To Action
Principles & Practices

Consider that Kubernetes…

Exists to enable developer autonomy and agency

Win by enabling development teams to do the same with security

Consider that Kubernetes…

Shifts infrastructure left with new primitives and APIs

Win by considering you are now totally outgunned. Get leverage by clearing security obstacles out of the way and then get yourself out of the way too.

Call To Action
Principles & Practices

Consider that Kubernetes…

Shifts many security responsibilities to development teams

And increases the need for effective security accountability and governance

Consider that Kubernetes…

Ultimately enables the business to capture more value faster

Win by considering security as a value-added solution that unblocks risk intolerant, revenue generating customers

Call To Action
Principles & Practices

Interested in learning more about the **BOOM Security Framework?**
Article here: **www.soluble.ai/blog/introducing_boom_for_security**

And book coming soon!