

# 12 RISKS OF INCORRECTLY SPECIFIED KUBERNETES RESOURCES

		MEMORY REQUEST	MEMORY LIMIT	CPU REQUEST	CPU LIMIT
<b>TOO SMALL</b> <p>Bar chart showing high number of containers with low resource usage (10-20% of required).</p>		<b>Node Saturation &amp; OOM Kills</b> Due to Memory Overstacking	<b>OOM Kills</b> Due to Memory Working Set Hitting Limit	<b>CPU Throttling</b> Due to Node Overstacking	<b>CPU Throttling</b> Due to CPU Hitting Limit
<b>NOT SET</b> <p>Bar chart showing very low resource usage across many containers.</p>		<b>OOM Kills</b> Due to Node Overstacking + Best Efforts QoS	<b>Node Saturation</b> Due to Unbounded Memory Use	<b>CPU Throttling</b> Due to Node Overstacking	<b>Not a Problem</b> <i>If intentional</i>
<b>TOO BIG</b> <p>Bar chart showing low number of containers with high resource usage (80-100% of required).</p>		<b>High Cost</b> Due to Stranded Memory Capacity	<b>High Risk</b> Due to Unconstrained Memory Use	<b>High Cost</b> Due to Stranded CPU Capacity	<b>Not a Problem</b> <i>If intentional</i>
<b>JUST RIGHT</b> <p>Bar chart showing optimal resource usage (around 100% of required) for a moderate number of containers.</p>		<b>Efficiency &amp; Balance</b> Nodes are well utilized and evenly balanced	<b>Safety &amp; Stability</b> Protections in place and low OOM risk	<b>Efficiency &amp; Balance</b> Nodes are well utilized and evenly balanced	<b>Safety &amp; Stability</b> No unnecessary CPU throttling

