Wrench Time Benchmarks

Palmer's four tiers, and what your shop looks like at each one.

Wrench time is the fraction of a paid maintenance hour spent with hands physically on an asset doing maintenance work. Walking, waiting, searching, meeting, paperwork, and travel do not count.

Measured against a tier table first developed by Doc Palmer (*Maintenance Planning and Scheduling Handbook*) and refined across decades of Wireman's benchmarking work.

The four tiers

Tier 1 — Below 35%: Deep trouble

What the shop looks like:

- Parts are hunted, not kitted. Technicians walk the plant looking for the right component.
- Schedules collapse by Tuesday. The Monday meeting's schedule does not survive contact with the week.
- Close-outs are three words. *Repaired. RTO.* The CMMS holds no learning.
- The planner is firefighting. Real planning happens rarely, if at all.
- Morning huddles run long, deliver little.
- Break-in work overrides planned work multiple times per shift.

What it feels like from the inside: busy. Always busy. Never caught up.

The cost: Paying for roughly 2x the crew the plant is actually getting. Every additional hire is consumed by the existing inefficiency.

What to do next: Do not try to install ten systems at once. Pick the one biggest single source of loss (usually parts kitting) and install one system against it. Ninety days of discipline on one system moves the needle more than ninety days of memos.

Tier 2 — 35% to 55%: Recovering / North American average

What the shop looks like:

- PMs run. Not all of them on time, but they run.
- A scheduling process exists. It holds some of the time.
- The planner does some real planning, but gets pulled into firefighting regularly.
- Break-in work runs around 20-30% of the total.
- Close-out quality is mixed — some useful data, much of it *Repaired. RTO.*

What it feels like from the inside: normal. This is where most North American maintenance shops actually sit. Managers at this tier often believe they are already at Tier 3.

The cost: Still paying for ~40% more capacity than the plant is extracting. A crew of twelve delivers the work of roughly seven to eight.

What to do next: Measure what is driving the gap. Usually three to five specific system failures are responsible for most of the loss. Install systems against those five. Target a 5-point gain per quarter. The path from 45% to 60% is a twelve-month project, not a memo.

Tier 3 — 55% to 65%: Decent / Target for a well-run program

What the shop looks like:

- Weekly schedule holds. Compliance above 85%.
- Kits are staged 48 hours ahead of planned work.
- Planner is planning. 1:6 to 1:10 planner-to-technician ratio is intact.
- Close-outs capture failure codes and meaningful notes.
- Break-in work below 15%.
- Morning huddles run in under 15 minutes with a written agenda.

What it feels like from the inside: calm. The shop is busy but not chaotic. People know what they are doing tomorrow. The manager spends most of their time coaching, not firefighting.

The upside: A crew of twelve delivers the work of roughly ten to eleven. Nearly two mechanic-equivalents recovered, without hiring. Budget defense becomes easy because the capacity is visible.

What to do next: Hold the line. Tier 3 is lost back to Tier 2 faster than it is reached. Audit the installed systems weekly. Coach the supervisors. Resist the pull toward "one more system" — the value is in the existing ones holding up.

Tier 4 — 65% and above: World-class

What the shop looks like:

- Condition-based monitoring on critical assets.
- Predictive maintenance informing the planning process.
- Reactive work below 10%.
- Close-out discipline produces a living reliability database.
- Supervisors actively coach close-outs weekly.
- The maintenance manager is publicly visible on the floor.

What it feels like from the inside: quiet. Very few surprises. When something fails, the response is already planned.

Who gets here: Fewer than 5% of North American plants, by Wireman's estimate. Mostly in petrochemical, aerospace, and pharmaceutical — industries where failure is either extremely expensive or extremely dangerous.

What to do next: Share what you've built with the industry. If you're here, other managers need to hear how you got from 55% to 65%+. The literature on crossing that last gap is thin.

How to measure yours

Use the companion **Follow-a-Crew Field Audit Sheet** (also at getov.xyz/toolkit/fix-the-system/ch01). One day, one crew, thirty minutes of math at the end.

Common objections to the benchmark

"Our work is different — those numbers don't apply to us." Plants in every industry have used these tiers for thirty years. Your work has specifics. The specifics do not change the math.

"Walking is part of the job." Some walking is. The percentage of time on walking that comes out of your field audit will still be a number. If it is 15%, that is information. If it is 35%, that is a system failure.

"My crew would resent being timed." You are not timing them. You are timing the *shop's support systems*. The distinction is real. When you explain it as "where is our day getting eaten" and not "are you working hard enough," most crews become allies within a week.

From Fix the System *by Ivan Getov. Companion to Chapter 1: The Wednesday Crew That Did Nothing. getov.xyz/toolkit/fix-the-system/ch01/wrench-time-benchmarks. Free. No email required.*