Measure What Matters: The 2023 Field Service Benchmark Report

Get insights into the state of field service. See how organizations responded to significant challenges such as economic uncertainty, inflation, widening workforce skills gaps, and increased client demands.

EBOOK

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Part I:

Introduction

Is COVID-19 over? The answer is up for debate, but The Next Normal is here. And with it comes another level of business reality: economic uncertainty.

The signs are glaring: **service costs have increased by as much as 7% from last year**. The cost of parts has surged due to supply chain shortages. Labor costs are continuing to rise. And with experienced technicians retiring sooner than a new wave of younger, equally-knowledgeable workers can replace them, the skills gap is steadily increasing.

This has led to uncertainty across the industry. One of the top questions that service leaders are grappling with today is, **"What steps should I take to improve service outcomes while managing costs?"** Companies can't control a potential recession or make themselves immune to its effects. But service leaders can control their responses and set their businesses up for success, even as economic indicators fluctuate. In times of crisis, it's easy for organizations to default to old habits like broad-based cost cuts that impact multiple departments or projects.

As companies prepare for the Next Normal, those that embrace modern, data-backed approaches will ensure a path to success. Service leaders need practical tools to measure their workforce's performance—from technicians to parts usage. They need a visual way to spot inconsistencies, start revamping their business models, and invest in initiatives that will make a long-term impact to their business.

It's time to rethink how the service industry defines "making an impact"— **this time by investing in key tools, such as AI, that enable business leaders to make data-backed decisions that result in the biggest ROI.** When service leaders have a bird's eye view of their organization's true landscape, they can begin to see where their business model is working— and where it needs adjustment. This makes it possible for field service organizations to survive hardships and thrive in a post-crisis world.

Key Findings

In our analysis of this year's data, we learned:

1. **The service industry is picking up again as businesses move into a "post-pandemic" phase.** However, there is still a shortage of experienced workers as more-tenured technicians retire—further exacerbating the skills gap between the highest and lowest performers. When coupled with rising parts costs due to supply chain shortages, businesses are facing higher service costs.

   - There was a 5% increase in field events and a 3% increase in the number of technicians in the field.
   - First Time Fix Rates increased by 2.3% since last year. Previously, this would have resulted in lower service costs. But service costs are up by 7%—confirming inflation's worrying impact.
   - Mean Time Between Visits increased by 32%, indicating that organizations are using remote and self-service tech solutions. This creates less of a need to visit assets in the field, so companies can service more assets with fewer technicians.

2. **The knowledge gap continues to drive up service costs.** In 2022, service organizations still faced hiring challenges, leaving the industry with tens of thousands of unfilled jobs. Some reports estimate there will be an industry-wide shortage of three million skilled trade workers in the next five years.

   - While the cost difference between service heroes (the top 20% of employees) and challengers (the bottom 20% of employees) has decreased slightly from previous years, it's still high. **On average, bottom performers cost organizations 67% more than top performers.** In addition, the variance between top- and bottom-ranking companies has increased.
   - Reducing the skills gap is more important than ever. Companies with healthy field service operation practices are able to improve their metrics over time because they're measuring their progress in a helpful way. They are also using the data to inform necessary investments in people, processes, and technology that can solve service issues. If organizations hesitate to make changes now, they are risking greater economic impact in the long term.

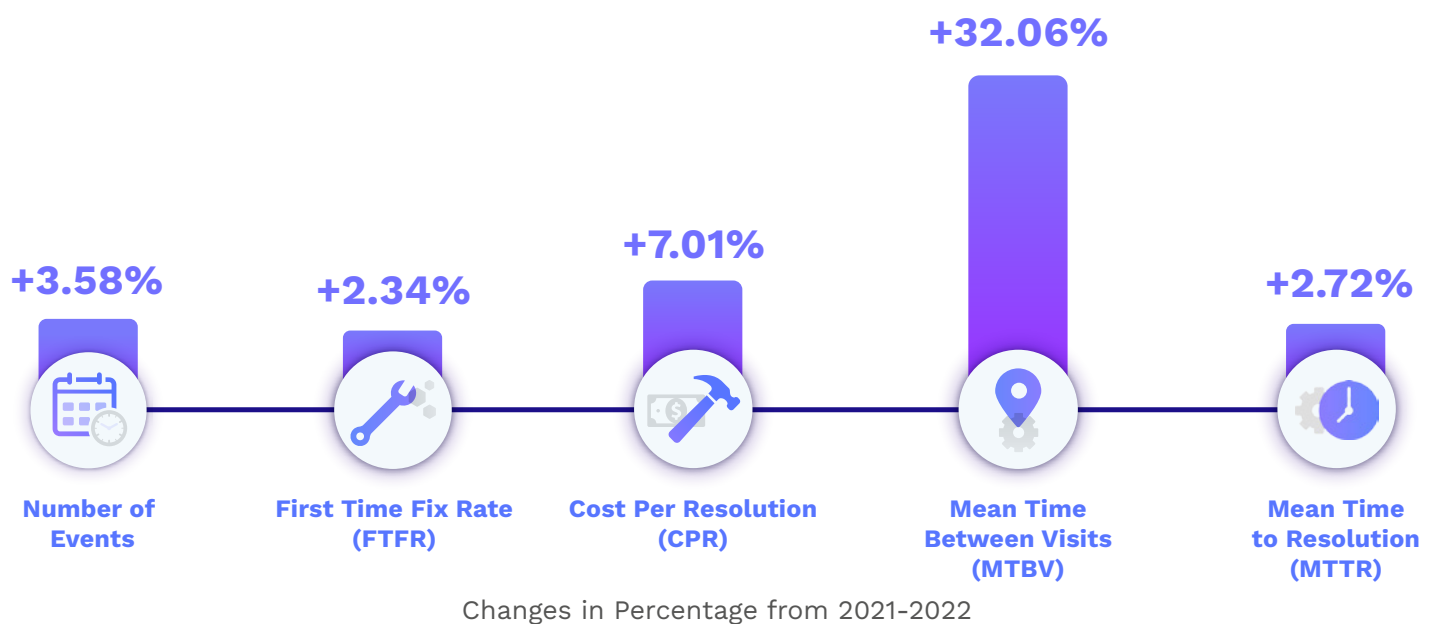3. **Service organizations can't control parts costs.** But they can focus on areas within their control, like managing their workforce's performance. With the correct tools under their belt, organizations can prioritize:

   - Closing the skills gap by hiring new techs and getting them ramped up faster.
   - Reducing parts shotgunning by determining the best and most cost-effective part for the fix.
   - Solving equipment failures on the first visit—as opposed to making quick, short-term fixes that address symptoms but not the root cause.
   - **[Adopting a laser-focused approach to spending](#)** by reallocating resources and cutting costs where necessary.

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Service at a Glance

Mean Time Between Visits increased over the last year, primarily due to service organizations continuing to use remote tech solutions initially adopted during the pandemic. This type of technology empowers customers to address minor issues themselves through simple, self-service solutions. It also enables organizations to diagnose—and even repair—issues without the need to send a tech on-site, thus reducing time and costs.

Tip: **In addition to focusing on improving First Time Fix Rates, organizations should also seek to further increase the time between visits as another way to keep service costs in check.**

| **+3.58%** | **+2.34%** | **+7.01%** | **+32.06%** | **+2.72%** |
| Number of Events | First Time Fix Rate (FTFR) | Cost Per Resolution (CPR) | Mean Time Between Visits (MTBV) | Mean Time to Resolution (MTTR) |

Changes in Percentage from 2021-2022

The Opportunities

The insights in this report, gleaned from actual service data, provides a path to service improvements through a multi-step process.

- **Identify** your organization's core service problems by better understanding the patterns in your service data
- **Obtain** a comprehensive understanding of what's working and what's ineffective in your organization—then allocate your resources as needed
- **Use** data patterns to drive actionable service recommendations—for management-level decisions and in-the-field fixes, all of which trickle up into the customer experience
- **Make** more informed workforce training and hiring decisions to shrink the skills gap

How We Compiled the Data

Aquant gathered and analyzed real, anonymized service data from more than 110 leading service organizations. This report measures data from before an organization deployed Aquant's AI solution.

The report measures:

- **113 organizations,** including service divisions within OEMs and third-party service organizations across manufacturing, medical devices, capital equipment, HVAC, commercial appliances, and more
- More than **16.2 million** work orders
- More than **125,000 technicians**
- Over **$8.1 billion** total in service costs
- An average of **3.8 years of service data** per company

The data was analyzed using Aquant's Service Intelligence Platform, which includes **Service Language Processing (SLP)**, a unique engine designed to read service language and identify observations, symptoms, and solutions described in free text.

With this technology, Aquant digs into data ranging from CRM and parts inventory to service tickets, handwritten records, and other information that lives in the minds of subject matter experts. Our method of SLP allows us to draw out patterns and recommendations based on raw data.

"We have to find different ways to scale with fewer technicians and limited availability. Equipment is getting more complex, and we have to get techs up to speed. We need to capture the knowledge of the retiring generation and pass it to incoming technicians, creating opportunities for new techs with fewer skills to come in and still be very successful. The goal is to develop a system where we can provide knowledge to our technicians and empower them to do a great job.

We want to hire really great people and train them with the information and knowledge that we've built so that they can go out and be successful. *If we can find great, diverse people with excellent backgrounds that can really talk to customers, the customer experience will deliver the knowledge."*

Joe Lang,
Vice President of Service,
Comfort Systems

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Part II:

Service Benchmarks Across 5 Key KPIs
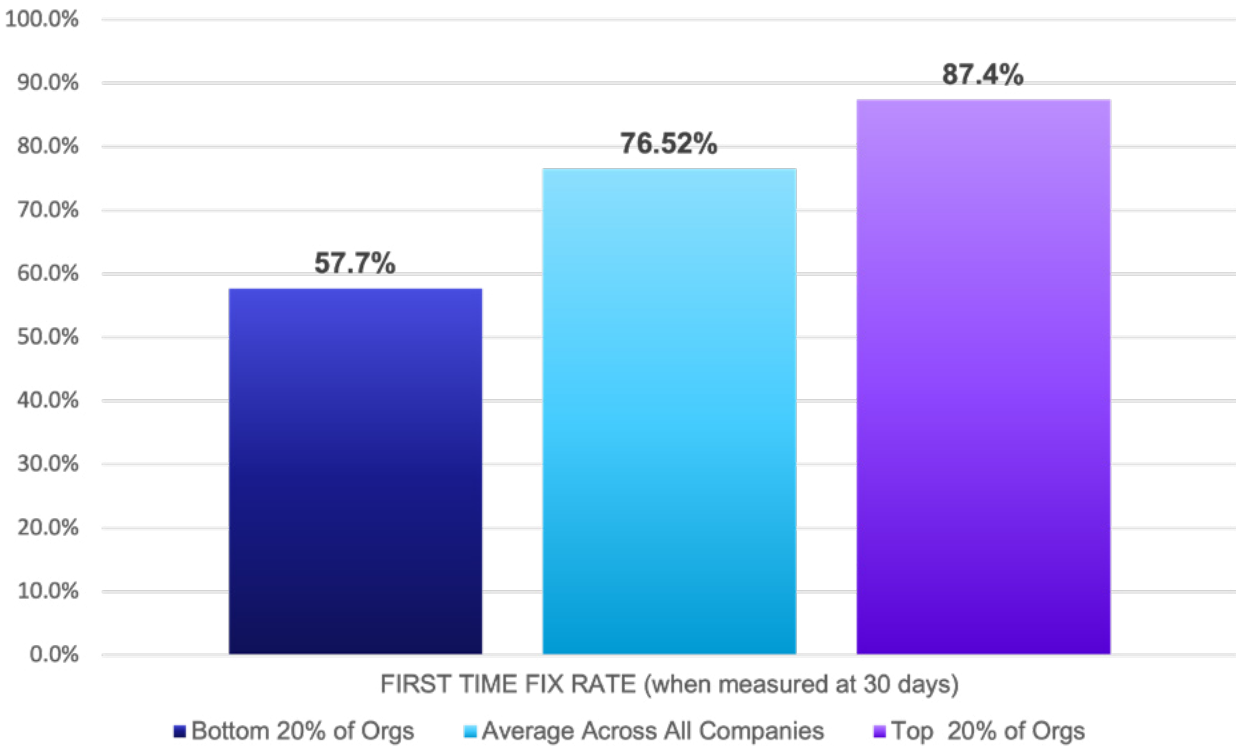
FTFR - First Time Fix Rate

What is it?

First Time Fix Rate is one of the most popular metrics for workforce measurement. It indicates how often a technician can fix an issue on the first try. In this report, we are measuring the FTFR of field visits in a 30-day window.

Key Observation:

First Time Fix Rates have **increased by 2.3% from last year**—a positive sign for the service industry. But other rising costs are diminishing the economic benefits of increased First Time Fix Rates.

Tip: Did you know that a failed first visit leads to an average of 2.75 total visits to resolve the service issue, as well as adding approximately 13 days to your Mean Time to Resolution? To keep First Time Fix Rates on track, prioritize closing the skills gap. Successful organizations have bridged their skills gap and improved First Time Fix Rates by:

- **Upskilling the workforce:** Hire technicians and get them up to speed faster with the help of tribal knowledge, applicable coursework, and more.
- **Reducing parts shotgunning:** Select the right parts for fixes on the first try.
- **Getting things right the first time:** Solve all issues reactive and proactive in one visit by giving technicians access to best practices, user-generated tips, and manuals when they are out in the field.

FIRST TIME FIX RATE (when measured at 30 days)

- Bottom 20% of Orgs: 57.7%
- Average Across All Companies: 76.52%
- Top 20% of Orgs: 87.4%

***Don't confuse First Time Fix Rates with successful job completion!***

Companies that measure FTFR in 7-day or 14-day windows are setting the stage for a wide experience gap, which leads to frustrating customer experiences. Try measuring your FTFR in 30-day windows to eliminate false-positive rates.

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CPR - Cost Per Resolution

What is it?

The total amount required to close a service ticket successfully is known as the Cost Per Resolution (CPR). This is a bit different from other similar-sounding KPIs, such as Cost Per Truck Roll, since total CPR may include multiple visits, truck rolls, various parts, and other labor costs.

Some organizations may measure Cost Per Work Order, but that metric leaves out cases that always assign experts to the most complex (and expensive) jobs. Additionally, it does not account for cases where multiple work orders are related to the same core issue.
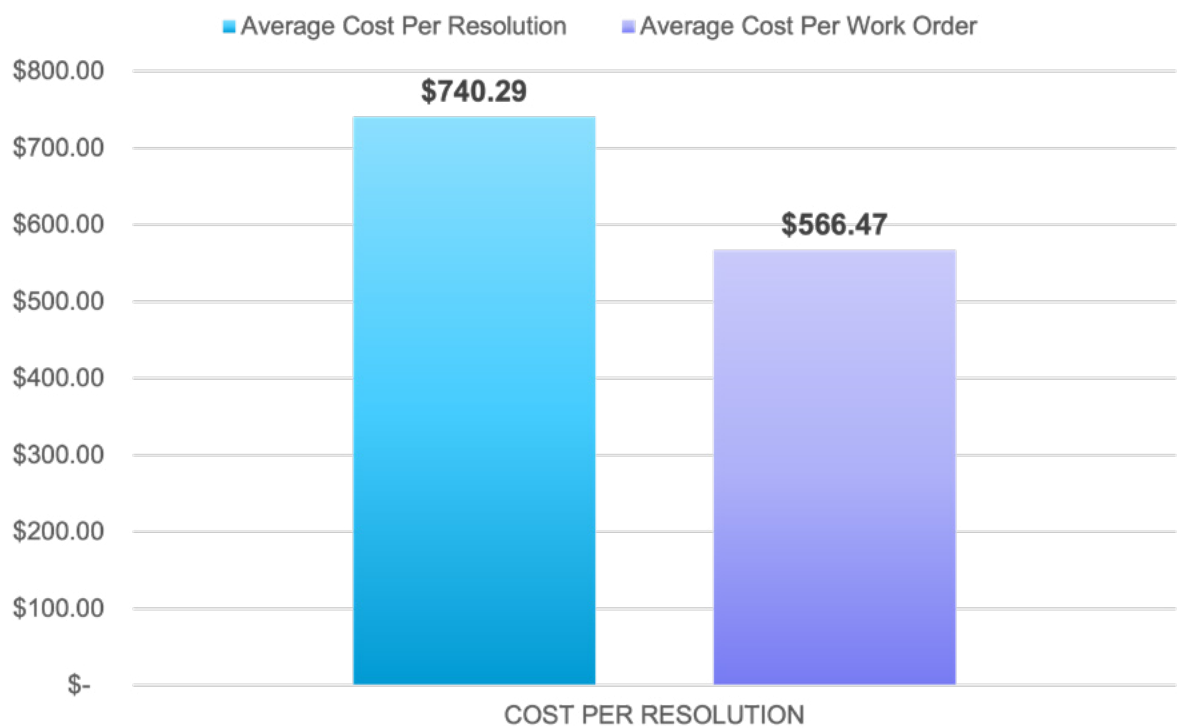
Key Observation:

CPR has **increased over 7%** in the last year, indicating that companies are likely feeling the effects of inflation.

Tip: Before tracking and analyzing Cost Per Resolution, take a look at how you measure First Time Fix Rates. It's easy to underestimate your CPR when you have faulty FTFR. When FTFR is tracked in time periods of less than 30 days, it results in a higher reading. This result is inaccurate as multiple tickets related to the same issue are not grouped together.

MTTR - Mean Time to Resolution

What is it?

Mean Time to Resolution measures the time it takes to resolve a customer issue. Typically, it's the time between the case creation and closure dates. Like the pain of staying on hold when trying to resolve a personal issue, minimizing MTTR is key to increasing positive customer experiences and reducing service costs.


Legend: Bottom 20% of Orgs | Average Across All Companies | Top 20% of Orgs

9.53 — Bottom 20% of Orgs
4.77 — Average Across All Companies
2.29 — Top 20% of Orgs

MEAN TIME TO RESOLUTION (in Days)
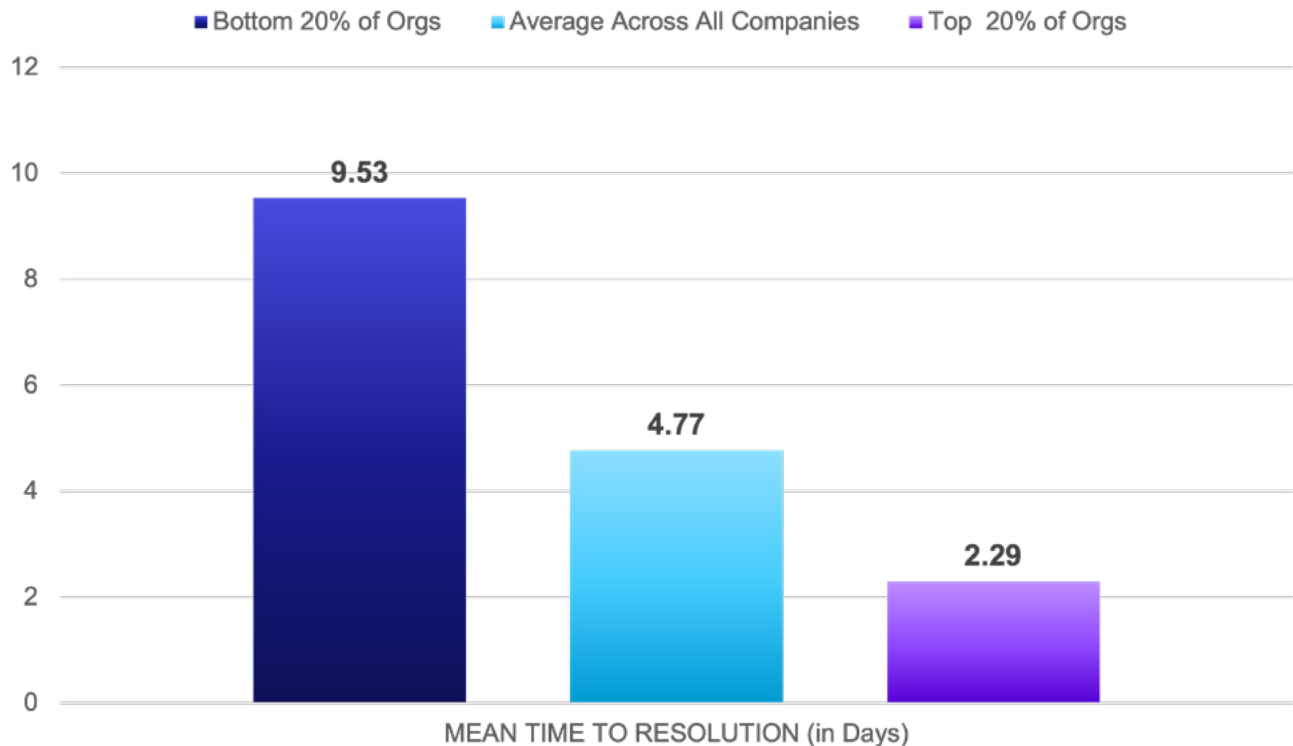
Tip: Resolving tickets quickly *and* accurately is bound to improve your customer experience. Improve MTTR by:

- **Prioritizing fast first responses:** Sometimes, cases may sit in your queue for hours—but only take a few minutes to be resolved. If you're struggling with response times, try evaluating your queue management system, adjusting case routing, or examining your customer support strategies.
- **Providing enough internal training:** Offer your team access to knowledge bases, scripts, manuals, and playbooks so that they can provide accurate fixes or answer customer questions quickly. This also reduces the time spent following up, so they can close tickets faster.
- **Offering self-service support for customers:** Embrace step-by-step help guides for easy fixes that don't require a technician on-site.

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MTBF - Mean Time Between Failures

What is it?

Mean Time Between Failures quantifies the average time between customer issues. Service organizations try to maximize this metric because a higher rate represents excellent service quality and maximum uptime.
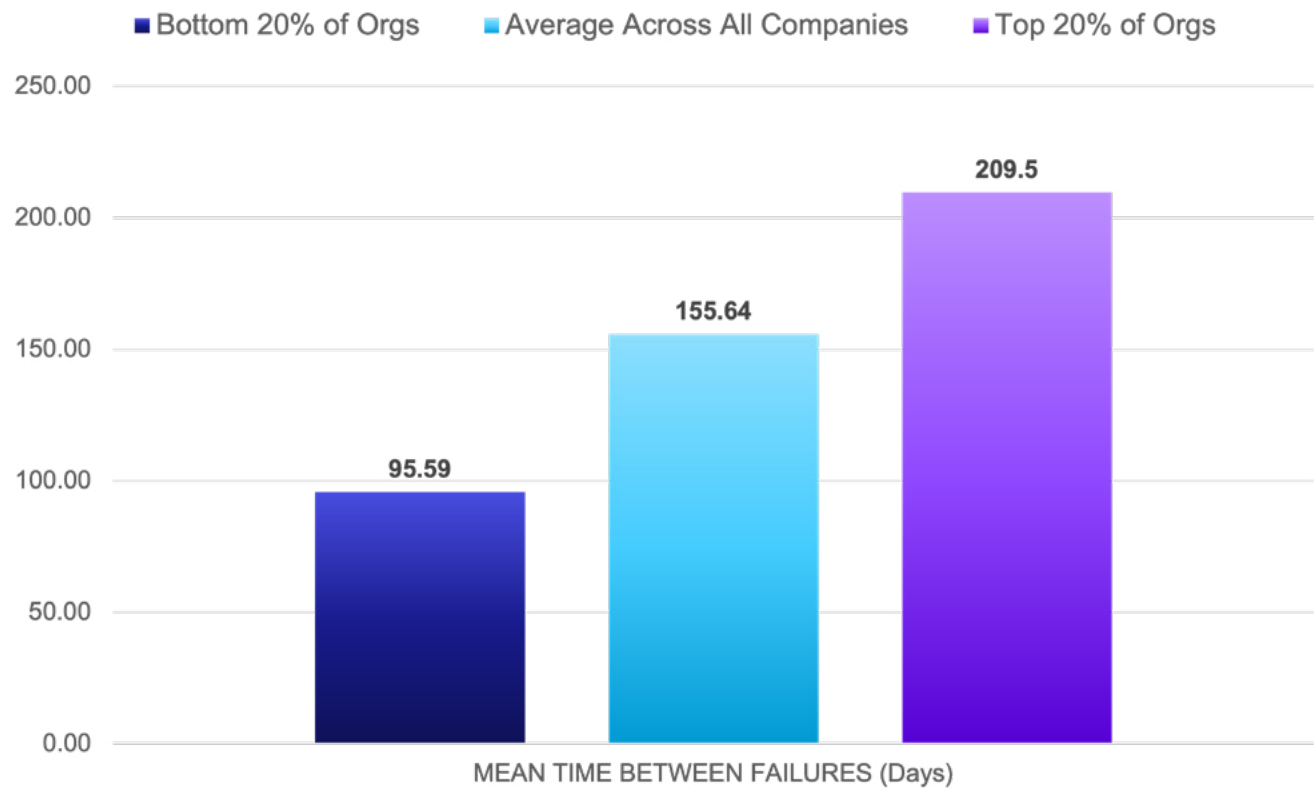
Key Observation:

Individual pieces of equipment may have different life cycles, but it's more important to keep track of underlying patterns in machines and dispatched technicians.

Tip: Experienced service heroes know how to use their time wisely when visiting a job site—and ensure that assets are working properly before leaving. This can significantly extend the time between failures. Focus on upskilling the entire workforce so every tech has the know-how to make proactive adjustments.
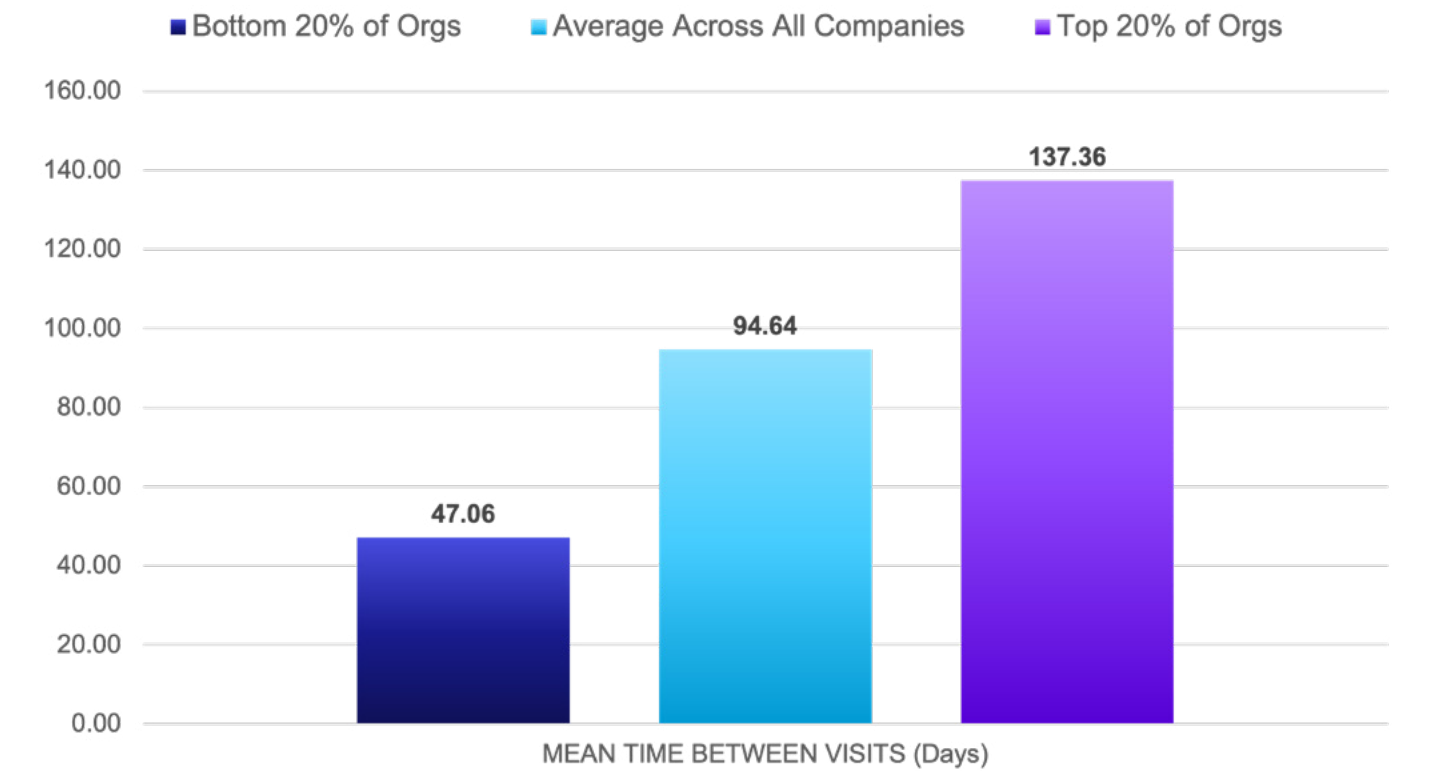
MTBV - Mean Time Between Visits

What is it?

Need to calculate both uptime and service performance? Look no further than Mean Time Between Visits. This measures every visit you have for an asset or customer, instead of only tracking the time between failures.

Key Observation:

Mean Time Between Visits is increasing, **up 32% from last year**. This indicates that the fixes performed are more accurate—and therefore longer-lasting—so technicians do not have to visit a site as frequently as before.

Tip: To further reduce truck rolls and site visits, organizations should continue to invest in technology that provides remote diagnostics and remote repair.

Chart legend: ■ Bottom 20% of Orgs ■ Average Across All Companies ■ Top 20% of Orgs

Bottom 20% of Orgs: 47.06
Average Across All Companies: 94.64
Top 20% of Orgs: 137.36

MEAN TIME BETWEEN VISITS (Days)

"Many of the programs we developed to improve First Time Fix rates were focused on improving the performance of our staff. When fixes are done correctly, it opens up field engineer bandwidth, creating more opportunities for them to respond quickly to the customer.

*Field engineers are no longer in a rush to move from job to job. **They can spend more time on difficult calls, increasing proficiency and knowledge, and decreasing the time needed to restore service.**"*

Steve Chamberland,
Director of Service Operations,
BD Biosciences

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Industry Snapshots:
The Workforce Skills Gap

Industry Snapshots — The Workforce Skills Gap

The data shows that the skills gap—also known as the knowledge gap—is one of the biggest barriers that prevent companies from achieving their KPI goals. It is also expensive. **On average, an organization's lowest-performing employees cost 67% more than the top-performing employees.**

When there is a considerable knowledge gap, technician performance will vary, and this will trickle down into your customers' experiences. When technicians are equally knowledgeable about the equipment that they service—and up-to-date on customer preferences—the service experience will be smoother for all involved.

To determine—and bridge—your team's skills gap, it is important to look at your service landscape as a whole. Start by identifying how much of a gap exists between your star technicians (heroes) and your underperforming technicians (challengers). Then, you can use the findings to determine the best way to allocate your resources to get them up to speed.

In this report, we calculated the percentage difference between heroes and challengers across all organizations on the following page. We divided it into:

- **Above-average organizations (the top 20% of companies)**
- **Average-performing organizations**
- **Below-average organizations (the bottom 20% of companies)**

> *"When I think about overcoming the challenges that we face today, I think first and foremost about talent—like having the right people in the right role, with the appropriate training. Being more efficient on-site depends on properly-trained field service engineers.*
>
> *We want to ensure they have the right part, at the right place, at the right time.* ***Predictive outcome technology helps ensure that we are sending technicians into an environment where they are being enabled for success."***
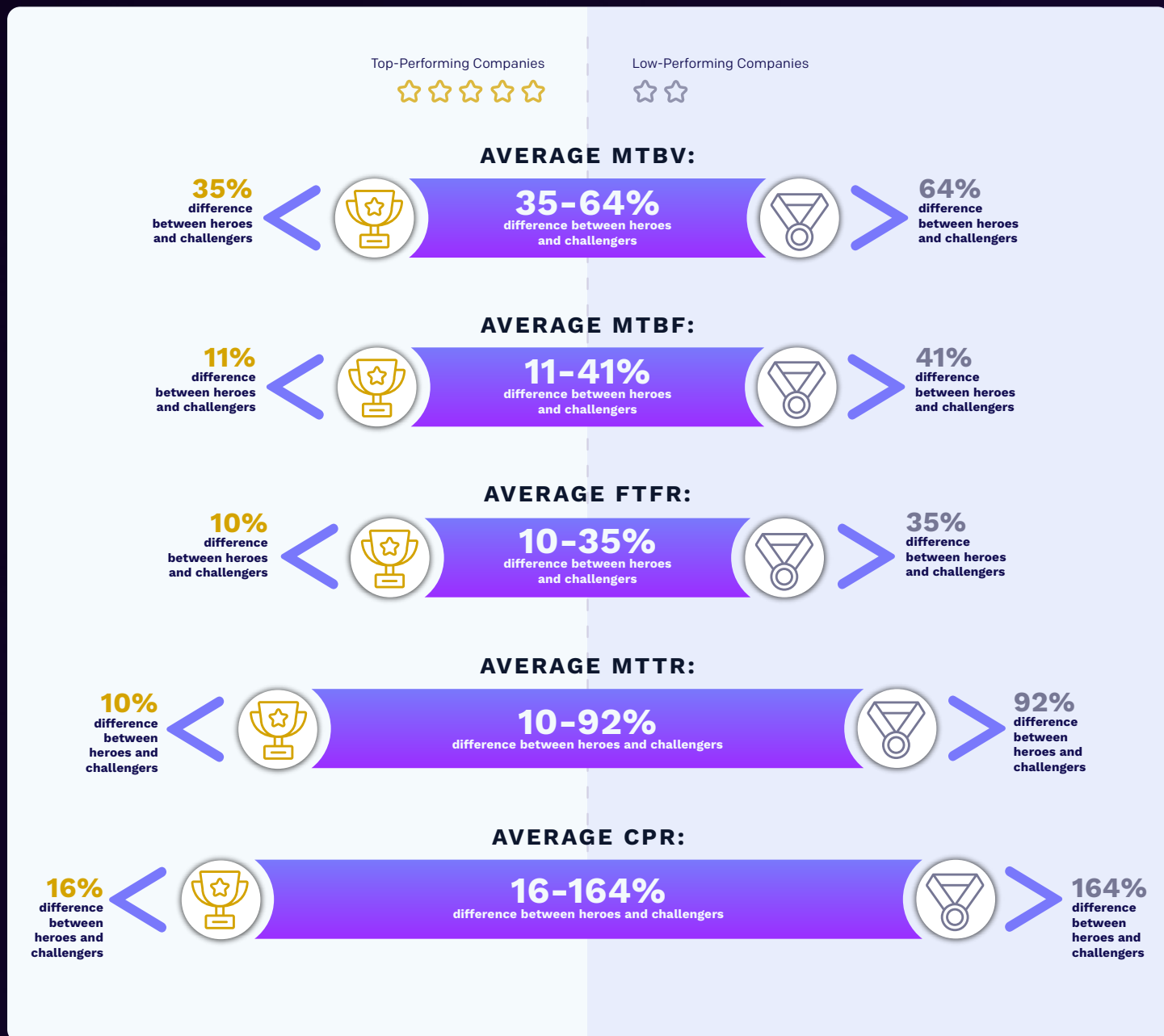
Mark Horvath,
Corporate Vice President of Global Services, *Hologic*

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A Snapshot of High-Performing and Low-Performing Organizations

Higher-performing organizations have a better distribution of knowledge among employees.

Top-Performing Companies
★★★★★

Low-Performing Companies
☆☆

AVERAGE MTBV:

35%
difference between heroes and challengers

35–64%
difference between heroes and challengers

64%
difference between heroes and challengers

AVERAGE MTBF:

11%
difference between heroes and challengers

11–41%
difference between heroes and challengers

41%
difference between heroes and challengers

AVERAGE FTFR:

10%
difference between heroes and challengers

10–35%
difference between heroes and challengers

35%
difference between heroes and challengers

AVERAGE MTTR:

10%
difference between heroes and challengers

10–92%
difference between heroes and challengers

92%
difference between heroes and challengers

AVERAGE CPR:

16%
difference between heroes and challengers

16–164%
difference between heroes and challengers

164%
difference between heroes and challengers

Did you know?

*Boosting your average-performing employees closer to your top performers would decrease service costs by 13%. But if everyone had the knowledge and skills to perform like the top 20% of the workforce, **service costs would be reduced by 21%.***

The Skills Gap - A Snapshot of Individual Technicians

The following is a snapshot of the workforce as a whole.

TOM ◆ HERO

FIRST TIME FIX RATE:
80.37%

MEAN TIME TO RESOLUTION:
3.89 Days

COST PER RESOLUTION:
$667.58

GREG ⬦ CHALLENGER

**FIRST TIME FIX RATE:**
61.88%

MEAN TIME TO RESOLUTION:
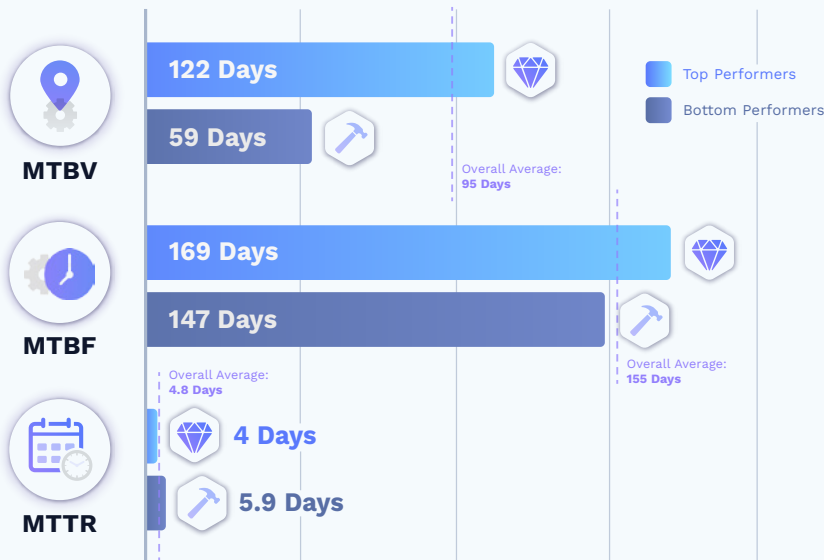5.86 Days

COST PER RESOLUTION:
$1,116.64

Key Observation: Looking at all of your metrics side-by-side can give you the best view into your workforce's performance. First Time Fix Rates may have marginally increased, but skyrocketing Cost Per Resolution (CPR) indicates that a knowledge gap costs organizations way more in the long term.

Top Performers
Bottom Performers

FTFR
80%
62%

CPR
$662
$1,116
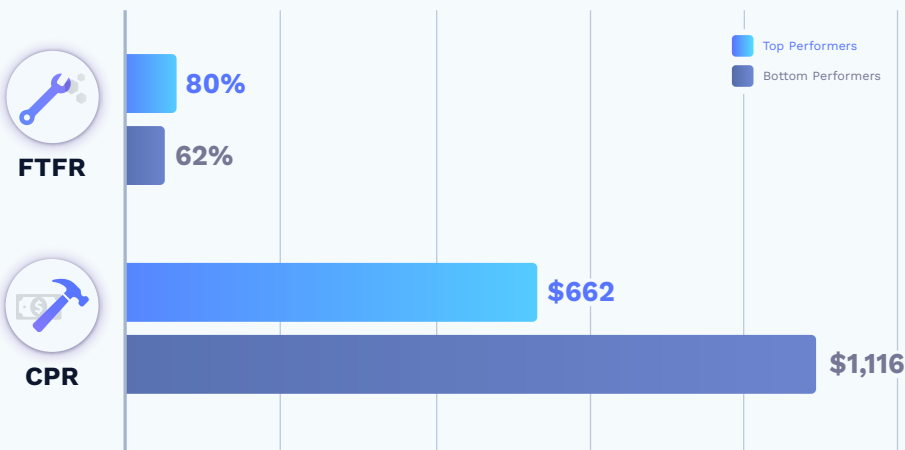
As you can see, there is a moderate gap between heroes and challengers for FTFR. But upon looking at Cost Per Resolution, it becomes evident that this moderate gap can lead to skyrocketing costs, indicating that you're not really getting the full picture when you measure FTFR on its own. Here's why you need to look at other metrics to get the full picture.

Hero vs Challenger Performance: At a Glance

Top Performers
Bottom Performers

MTBV
122 Days ◆
59 Days ⬦
Overall Average: **95 Days**

MTBF
169 Days ◆
147 Days ⬦
Overall Average: **155 Days**

MTTR
Overall Average: **4.8 Days**
◆ 4 Days
⬦ 5.9 Days

The gap between all three additional KPIs (MTBV, MBBF, and MTTR) is significantly wider than the FTFR gap. Relying on FTFR alone creates blindspots for service leaders—most organizations cannot measure how FTFR impacts the workforce skills gap. In turn, service leaders can't gauge how low FTFR drives up service costs and negatively impacts customer satisfaction.

Part IV:

The Way Forward

The Formula to Boost Service

Navigating the service landscape after COVID-19 can be challenging—but certainly not impossible.

Start by looking at your data to seek out any inconsistencies. Then, take a look at your business model to find areas that you can potentially adjust. This is the perfect opportunity to consider new ways to deliver value across your business.

Lastly, get ready to act on your analyses by investing in the right tools to take your business to the next level.

Not sure where to begin? First, take a look at the top five KPIs for service organizations.

Are you already measuring these KPIs—especially in a way that accurately reflects the health of your business? These five KPIs will give you insights into every aspect of your service business—from your workforce and customers to equipment.
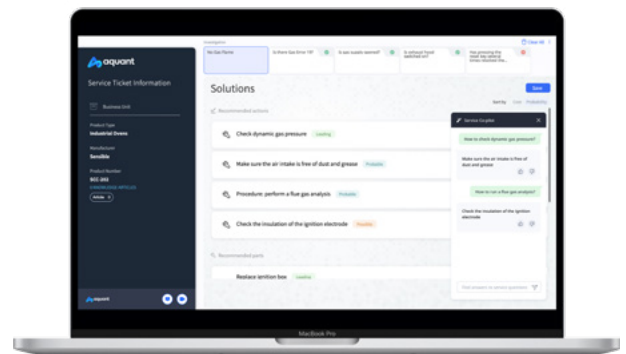
Then, create a detailed plan using Aquant Service Insights. Once you have critical information about every aspect of your service organization, you can make data-based decisions that bridge the skills gap, improve customer experiences, and drive growth across your organization.

> *Whether you're a Fortune 500 company or a small organization, investing in the right tools will provide incredible ROI. For the biggest impact, use technology to analyze your current service landscape. This can confirm that you are on the right track, see what's not working, and get laser-focused recommendations to improve specific areas of your business.*

Leverage the best of business intelligence AI with Service CoPilot.

Aquant's **Service Co-Pilot** platform is built specifically for service and is available at every point of the cycle. Anyone—including customer service agents, field technicians, service leaders, and customers—can find the best answers to any service issue. Improve remote resolution; give every tech access to the best fixes; analyze workforce performance, customer risk, product quality trends, and more—all in one system.

REQUEST A DEMO