



Measure What Matters: The 2022 Service Intelligence Benchmark Report

An analysis of field service performance and customer satisfaction in a year of talent shortages, COVID service pivots, and shifting customer demands

REPORT

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Part I:

Introduction

In this comprehensive data report, Aquant analyzed how service organizations and their workforce measured up against industry benchmarks.

We also explored service performance from a customer perspective.

Aquant analyzed more than **six million service tickets** to reveal:

- A snapshot of the overall industry and how companies measure up against each other
- The reason why hitting your KPIs rarely equates to outstanding customer experiences
- The spiraling impact of a missed First Time Fix (FTF) event
- An increase in the workforce skills gap
- COVID-19's impact on service

We provide recommendations to:

- Start making immediate business improvements by looking at service performance in a comprehensive way
- Boost the customer experience in the short-term and long-term
- Upskill a team in the face of a talent shortage
- Succeed amid post-Covid service disruptions

“Get your facts first, and then you can distort them as much as you please.” – Mark Twain

Key Findings

KPIs Are Only as Meaningful As How You Measure Them

First Time Fix is a Distorted Barometer of Service Quality

Organizations that monitor KPIs in isolation may think they are hitting their numbers and providing great service. However, there's a good chance that they are providing sub-par customer experiences.

Organizations that measure FTF rates at seven days or 14 days actually have much lower long-term success rates than their dashboards reveal. This is because fixes marked as complete on day one often require additional visits on day two through day 14 to fix a persistent problem that may have been incorrectly or inadequately addressed on the first visit. For example, if you wrap a leaking hose with duct tape to stop a leak, you've put a bandaid on a problem without fixing the root issue. The customer may call to reopen that ticket when they discover another leak in the following week.

- **86.6%** is the FTF rates when measured in 7-day windows
- **81.5%** is the FTF rates when measured in 14-day windows
- **75%** is the FTF rates when measured in 30-day windows

The other argument against relying too heavily on FTF rates is that high values often mask other issues, such as:

- Employees who shotgun parts to hit KPIs
- High labor costs due to over-reliance on industry veterans

SERVICE ORGANIZATIONS SUFFER A WIDE CUSTOMER EXPERIENCE GAP

The way organizations provide service today is not in tune with customer expectations. Even with an average FTF rate, **one in every four jobs requires at least one repeat visit.**

Variations on FTF measurements are one reason for the disconnect. Other contributing factors include:

- Lack of insights into an organization's core health
- A workforce labor shortage
- Inability to connect the dots between service performance and customer experience
- Reactive vs. proactive service

THE KNOWLEDGE GAP IS GETTING MORE EXPENSIVE

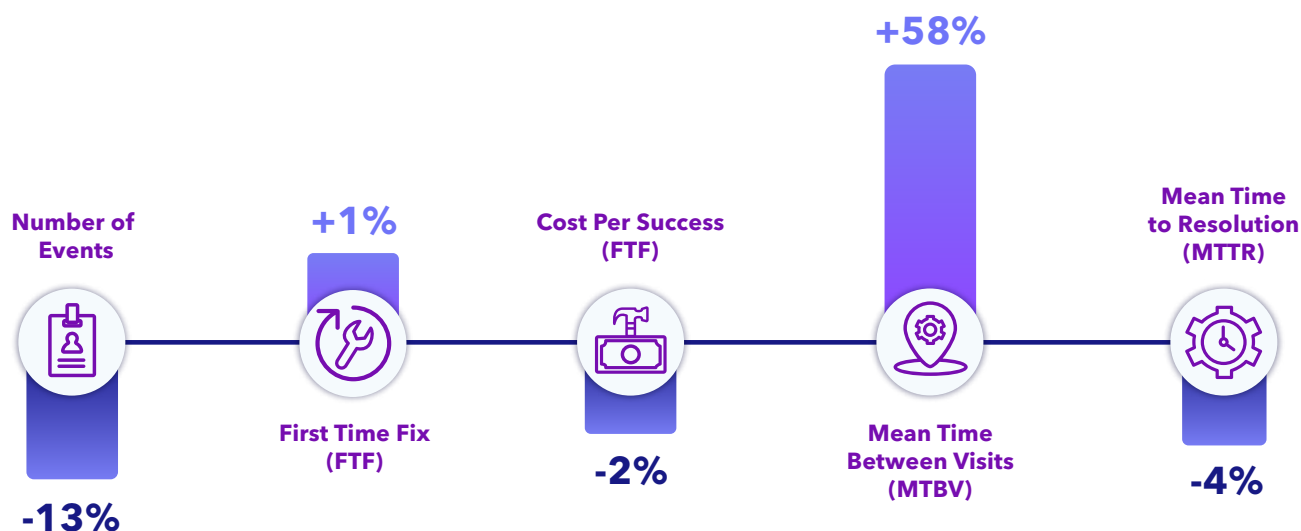
In 2021, service organizations faced even larger hiring challenges than in the past. This has left the industry with tens of thousands of unfilled jobs, and some reports estimate there will be [an industry-wide shortage of three million skilled trade workers](#) in the next five years.

- The bottom quarter of the workforce costs organizations 84% more than the top quarter. **That's 4% higher than last year.**
- The top 20% of the workforce (service heroes) has a **75% FTF rate**. The bottom 20% of the workforce (service challengers) has a **FTF rate of 59%.**

COVID's Impact On Service

Mean Time to Resolution (MTTR) increased during COVID, showing that jobs were completed faster. Part of that increase is attributed to more service organizations adopting remote resolution technology. This technology helps customers address minor issues themselves through self-service solutions. It also enables service organizations to diagnose—and even repair—issues without the need to send a tech on-site, thus reducing time and costs.

This is also a sign of resiliency across service organizations, many of whom were able to adapt in the face of ever-changing circumstances.



Changes in Percentage from 2019-2021

The Opportunity

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

- **Learn** how to accurately identify your organization's core service problems by better understanding the patterns in your service data
- **Use** those data patterns to drive actionable service recommendations—for management-level decisions and in-the-field fixes
- **Plan** proactive customer experience enhancements
- **Make** more informed workforce training and hiring decisions to shrink the skills gap

How We Compiled the Data

Aquant gathered and analyzed actual anonymized service data from more than 76 leading service organizations. The data in this report was measured before an organization deployed Aquant's AI solution.

The report measures:

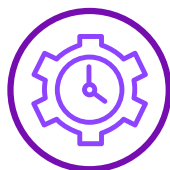
- **76 organizations**, including service divisions within OEMs and third-party service organizations across manufacturing, medical devices, capital equipment, HVAC, commercial appliances, and more
- More than **6 million** work orders
- More than **31,000 technicians**
- **\$7 billion** total in service costs
- An average of **3 years** of service data per company



Key Terms and KPIs:



First Time
Fix Rate



Mean Time to
Resolution



Mean Time
Between
Failures

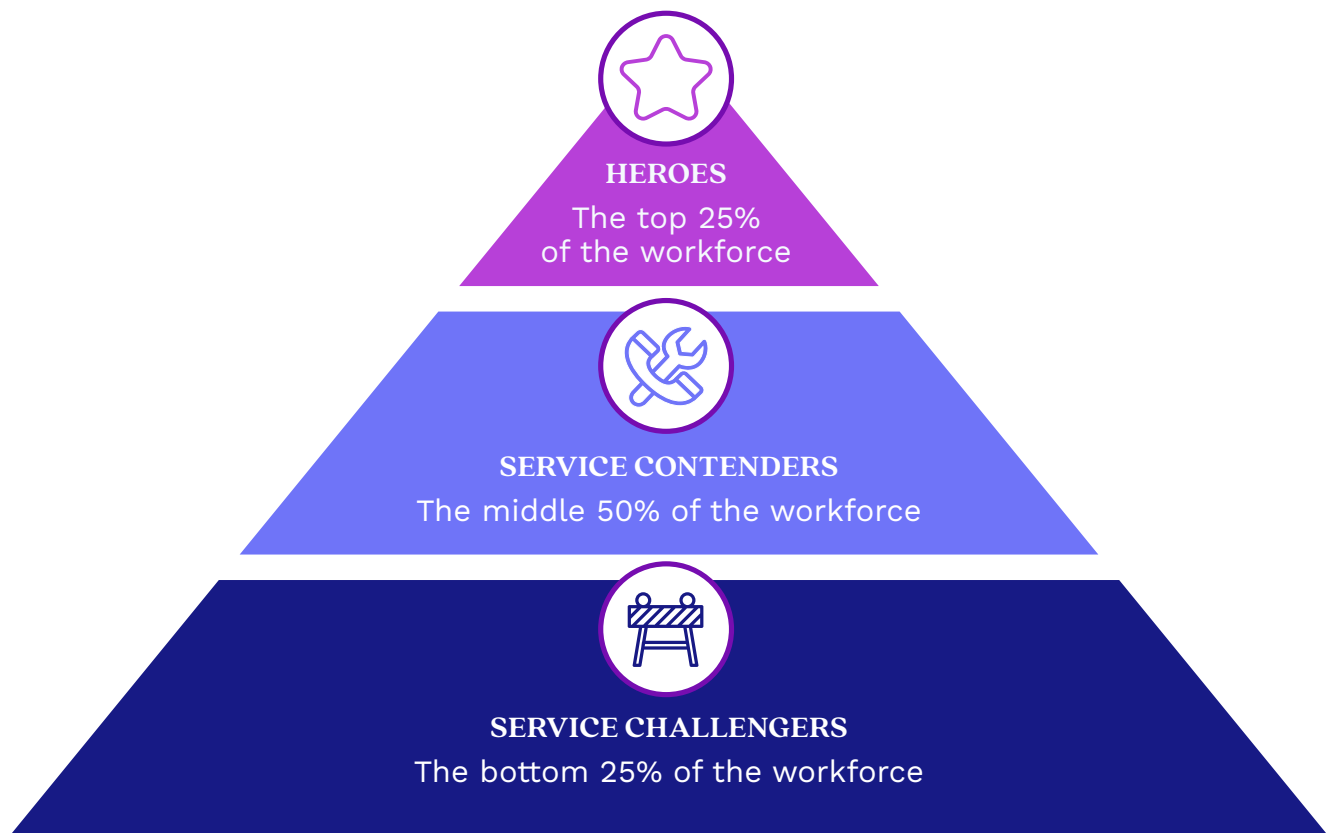


Service Cost
Per Success



Mean Time
Between Visits

How We Define The Service Workforce



How is this Report Different from Standard Service Benchmarks?

- **We analyzed real service data** to understand the health and outlook of organizations instead of relying on service executives to self-report KPIs. Data sources included service tickets, CRM data, parts information, and more.
- **We charted the skills gap.** This makes it easy to extrapolate how much an organization can gain in efficiency and cost savings if the entire workforce was able to perform more like your experts.
- **We analyzed the data** using the Aquant Service Intelligence Platform, which includes a Natural Language Processing (NLP) engine built for the service industry. This lets us dig deep into data ranging from CRM and parts inventory to service tickets, handwritten records, and other information that never makes it into any databases. We are able to draw out patterns and recommendations based on raw data.

Part II:

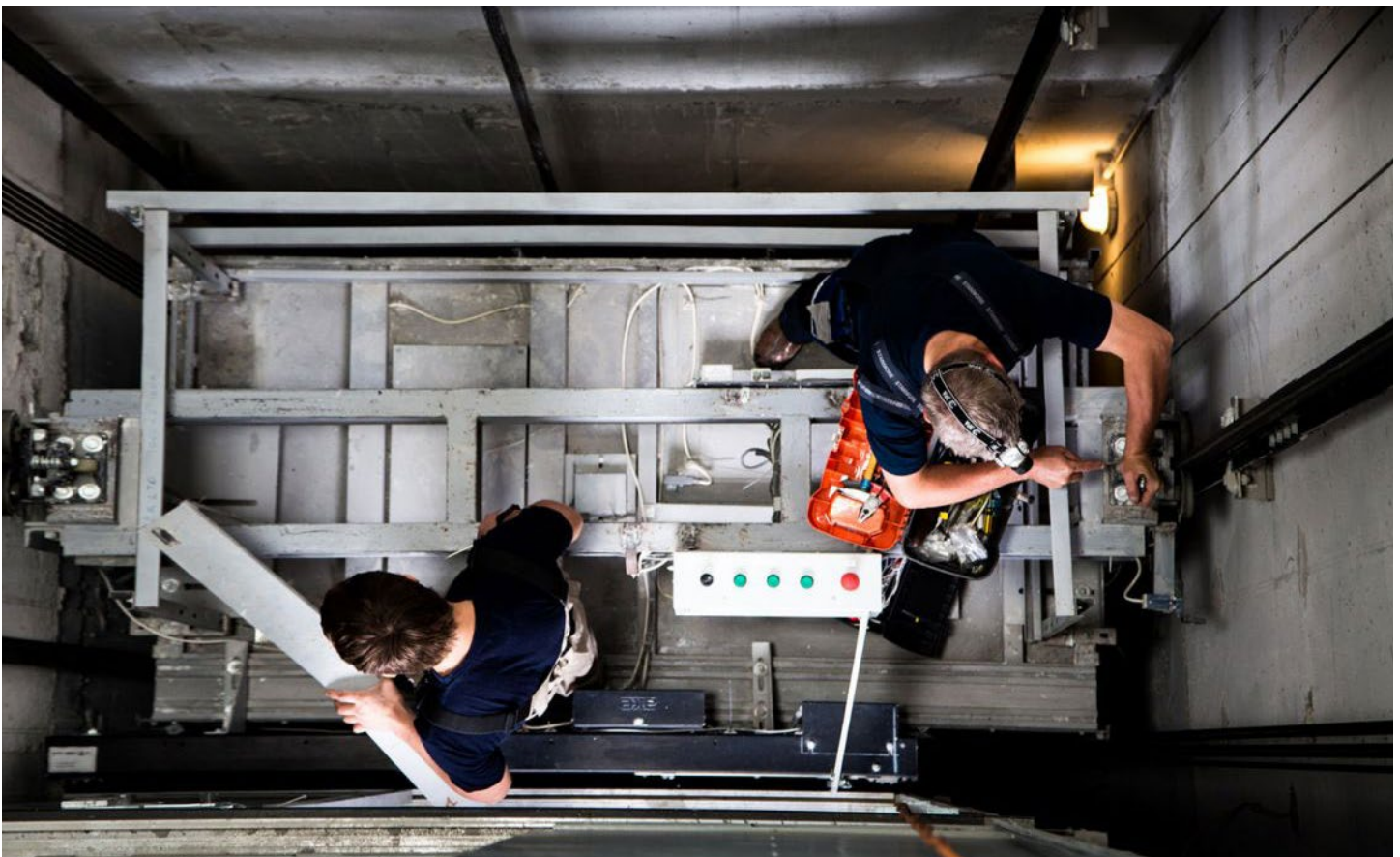
Service Benchmarks Across 5 Key KPIs

What KPI Measurements Do and Don't Tell Us

KPIs don't equal customer sentiment

In the [Service Leader's Guide to Workforce KPIs](#), we examined why workforce measurement is more critical than ever, and we defined best practices for measurement criteria.

For the 2022 Service Intelligence Benchmark Report, we went a step further. We analyzed service data to understand service performance beyond KPI measurement. We found that knowing your KPIs—by number or average performance—is not the same as understanding what those numbers reveal about customer satisfaction, employee skill level, or overall service performance. Averages don't disclose the specific details you need to make critical service decisions.



Service KPIs By The Numbers

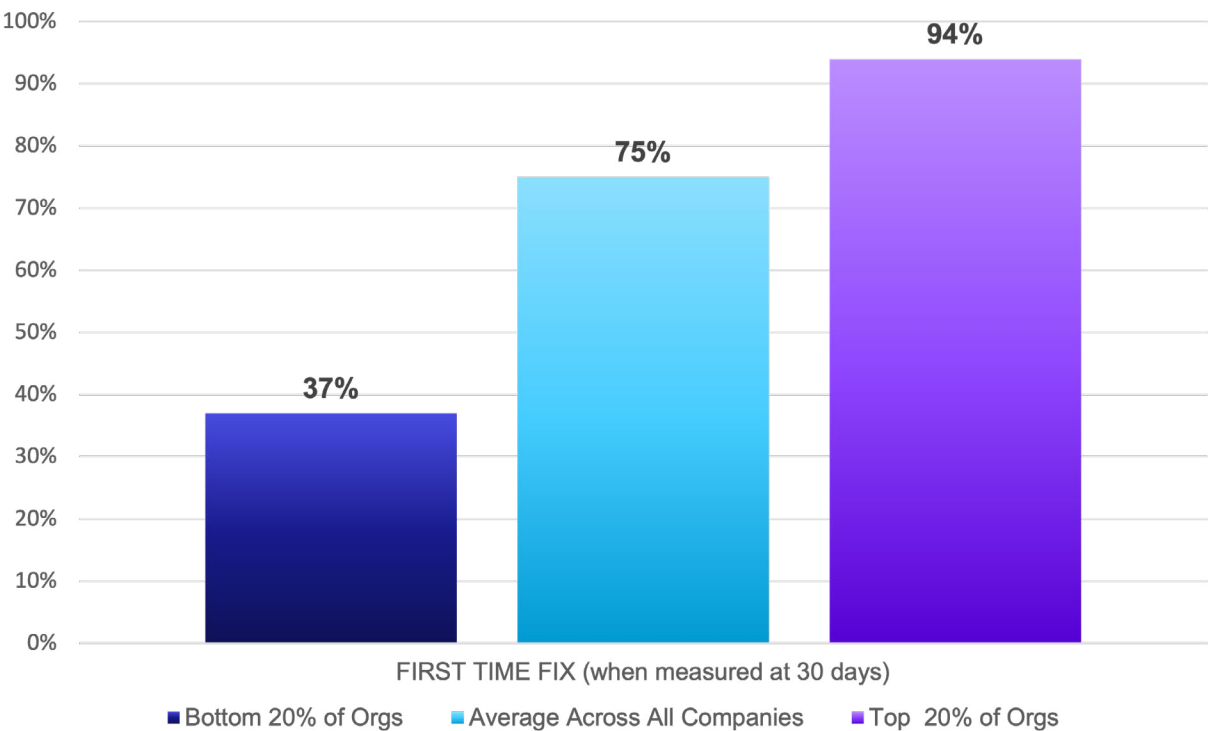


Here’s the breakdown of how service organizations measure up against other organizations and the industry as a whole.

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 someone is able to fix an issue on the first try. In this report, we are measuring the FTF rate of field visits, in a 30-day window.



Key Observation:

FTF rates have hovered around 75% for more than a decade—and remained stagnant for all but a handful of top-performing companies. Additionally, FTF rates should never be measured in isolation. On average, a failed first visit leads to 2.5 additional visits and 20 days for MTTR.



CPS - Cost Per Success

What is it?

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

Some organizations may measure Cost Per Work Order, but that metric leaves out cases that include always assigning 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.

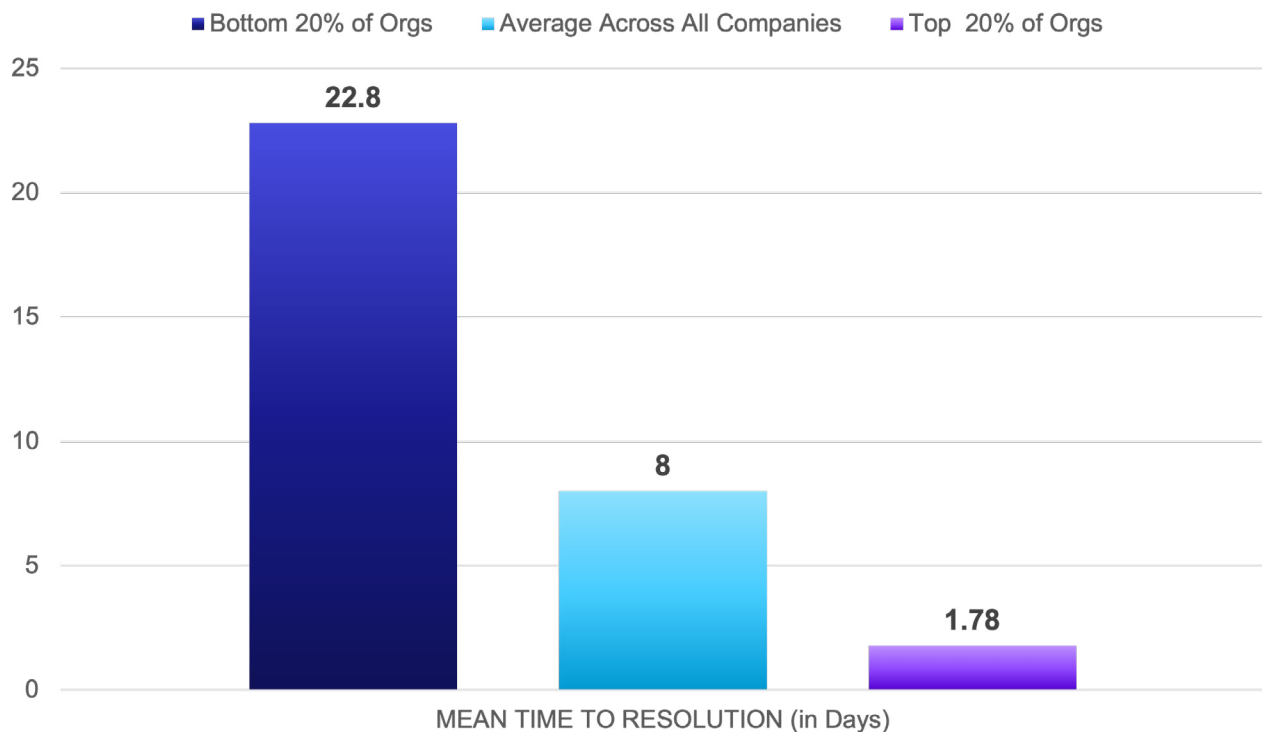


Key Observation: Successfully resolving an issue involves nearly 42% more in costs versus looking at work orders individually. While average costs are dependent on the company and type of equipment being serviced, the cost difference is the most important to keep in mind.

MTTR - Mean Time to Resolution

What is it?

The Mean Time to Resolution KPI measures the time it takes to resolve a customer issue. Typically, it's the time between the case creation date and the closure date. Similar to the pain of staying on hold when trying to resolve a personal issue, minimizing MTTR is a key factor in increasing positive customer experiences and reducing service costs. In the last year, we've seen a growing divide in this metric.



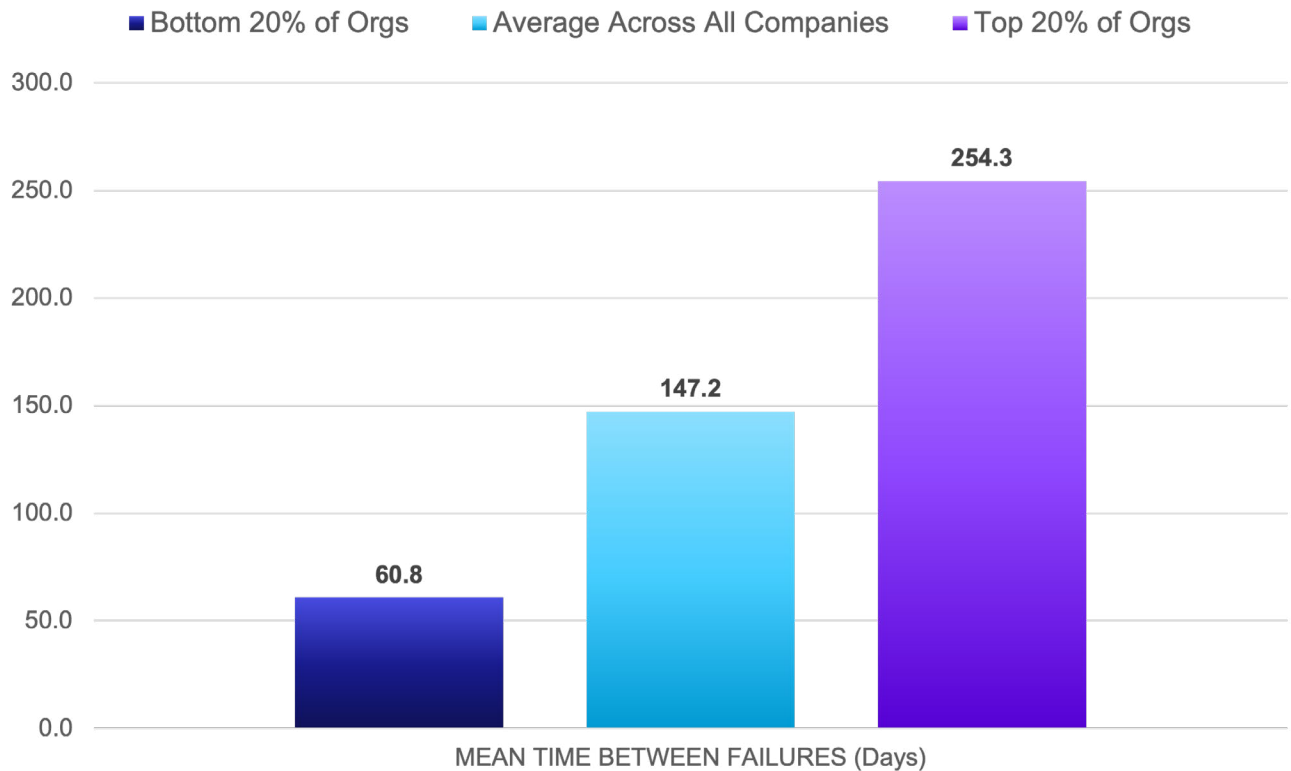
MTTR (in days):

- **8 days:** average across all companies
- **1.78 days:** top 20% of organizations
- **22.8 days:** bottom 20% of organizations

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.



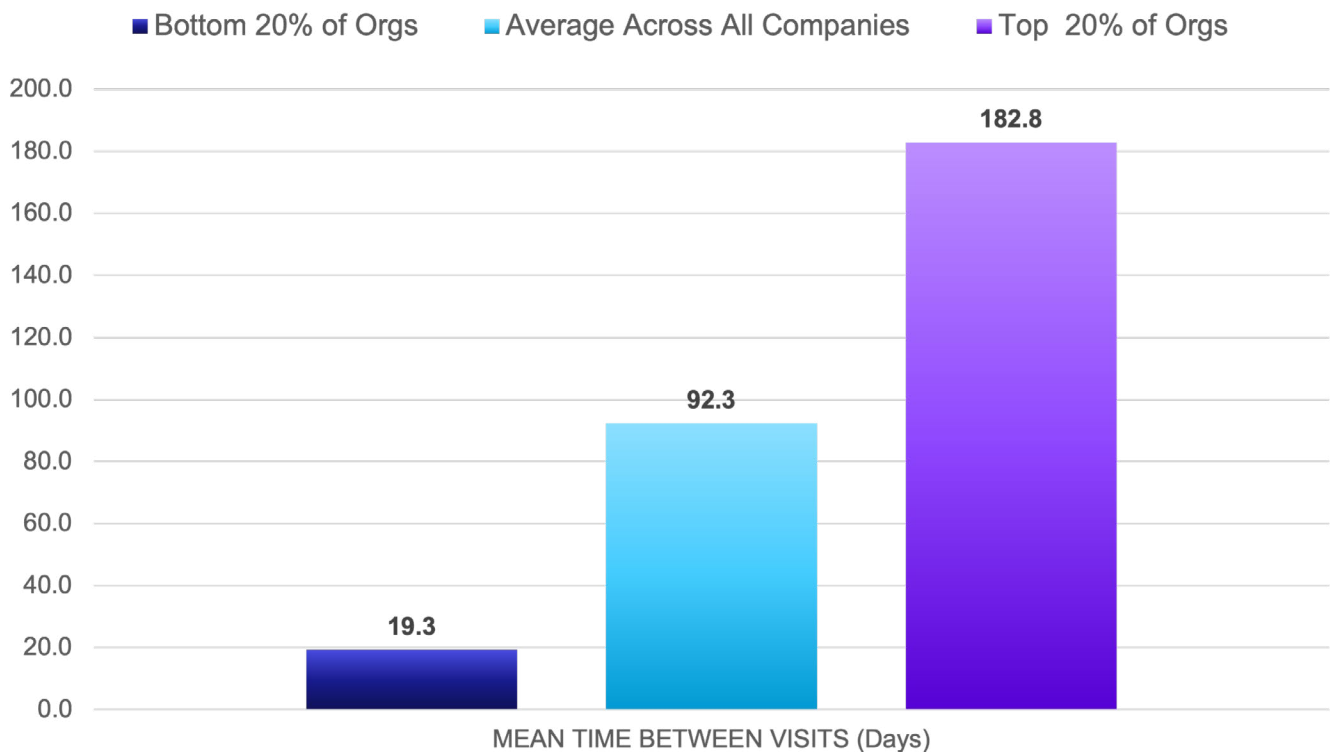
- 139.9 days: Average across all companies (147.2 in 2021)
- 231.8 days: Top 20% of organizations (254.3 in 2021)
- 57.5 days: Bottom 20% of organizations (60.8 in 2021)

Key Observation: Individual pieces of equipment may have differing life cycles, but service leaders need to understand underlying patterns—in both their machines and workforces. When visiting a job site, experienced service heroes know how to use their time wisely and ensure that assets are working properly before leaving. This can significantly extend the time between failures.

MTBV - Mean Time Between Visits

What is it?

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



- **92.3 days:** average across all companies
- **182.8 days:** top 20% of organizations
- **19.28 days:** bottom 20% of organizations

Key Observation: Experienced techs will skew towards longer time intervals between visits. That's great news, thanks to low repeat visit rates, as well as their ability to utilize every visit to maximize uptime.

Part III:

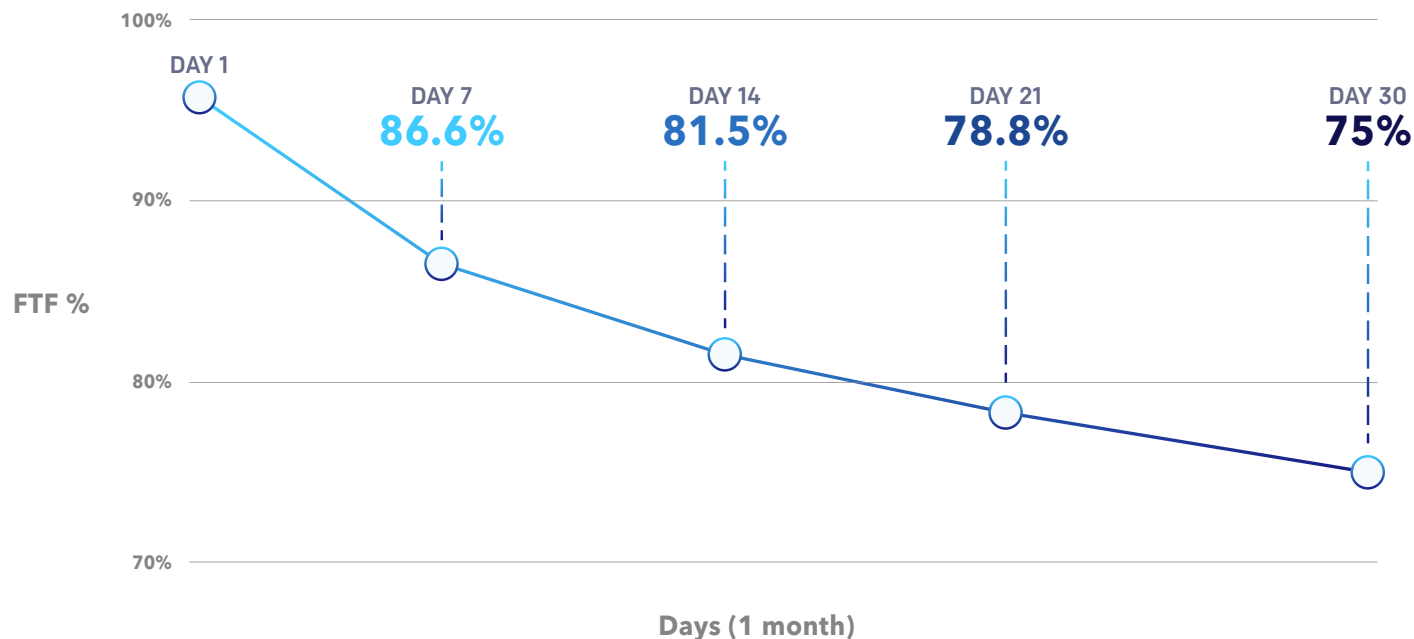
Beyond KPIs

How KPIs Limit Business— and How to Look Beyond Them

The Customer Experience Gap

The Customer Experience Gap shows the difference between what customers expect and what your organization delivers.

Our analysis shows that companies who measure FTF rates in 7-day or 14-day windows are setting the stage for a wide experience gap—which leads to frustrating customer experiences. The moral of the story: a few metrics can't provide the entire picture. It's time to look at experience as a whole.



Instead of defining FTF in arbitrary time increments (7 days, 14 days, or 21 days), think about it in terms of the natural service cycle. Our research shows that measuring in 30-day windows strips out false-positive FTF rates.

Understand where your organization falls on the Customer Experience Gap chart.

- If your FTF rate is similar when measured at 7 days and 30 days, you have a **small gap**.
- If your FTF rate has a wide variation (usually a high rate at 7 days and a low rate at 30 days), you have a **large gap**.

If you have a large gap, your team is focused on hitting their numbers instead of focusing on great customer experiences.

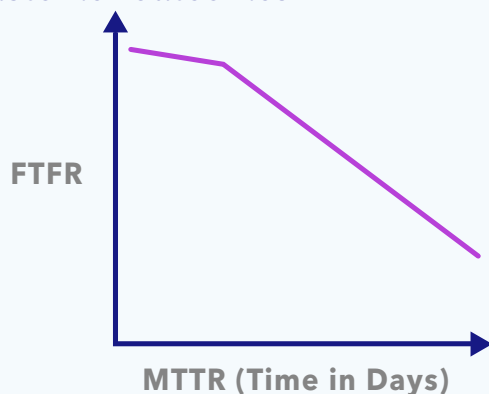
Why FTF Rates Vary By Time

When measured in short windows (like 7-day increments), jobs where a technician made an incorrect fix—but got the machine to work temporarily—will be marked as complete. But an incorrect fix is only a temporary measure, and the machine will continue to break down until properly repaired. For instance, a customer may call for service two or three times in a 30-day window. If you only measure in 7-day increments, your dashboard may show you successfully completed three jobs for one customer. In reality, these were three failed visits. This environment also leads to customer escalations and customer complaints that management may deem as “surprise complaints” that they didn’t see coming.

When it comes to service, it’s just as important to maximize the time between events and failures as it is to fix things correctly the first time. The less a customer needs a technician on-site, the better. This means the customer’s needs are being met.

Two Examples of Poor Customer Experiences

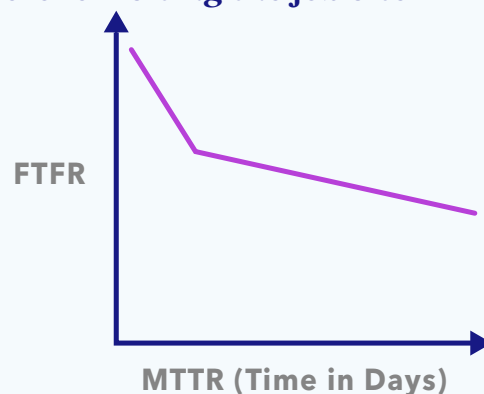
Company A: KPIs are not aligned to customer outcomes



When FTF curves start out flat, it means that the company likely incentivizes high FTF rates over deep problem-solving. That’s shown by the curve getting steeper at the end of a 30-day cycle, indicating that the FTF rate is plummeting.

The key takeaway: Company A is not closely monitoring FTF rate—or there is no incentive to maintain a high rate over a long period of time—leading to poor customer experiences.

Company B: Lack of preparation before visiting the job site



Here, the FTF rate starts out high and eventually flattens out. This may indicate that more preparation, information, or triage was needed before visiting a job site. A return visit would most likely be required to successfully solve the problem. Unlike Company A, Company B eventually solves root problems, but it requires several visits.

The key takeaway: Company B is trying to provide great customer service, but has some limitations that hinder quick and accurate outcomes, such as a lack of prep or an employee knowledge gap.

The Skills Gap - A Profile Of the Top and Lowest Performing Organizations

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What does the knowledge gap have to do with hitting KPIs?

If there is a large knowledge gap between team members, performance will vary—and so will customers' experiences. That's why it's crucial to make sure that your technicians are equally knowledgeable about the equipment that they service and up-to-date on specific customer preferences.

Determine your team's skills gap.

To increase your team's knowledge and success, you must first identify how much of a gap exists between your star technicians (heroes) and underperformers (challengers).

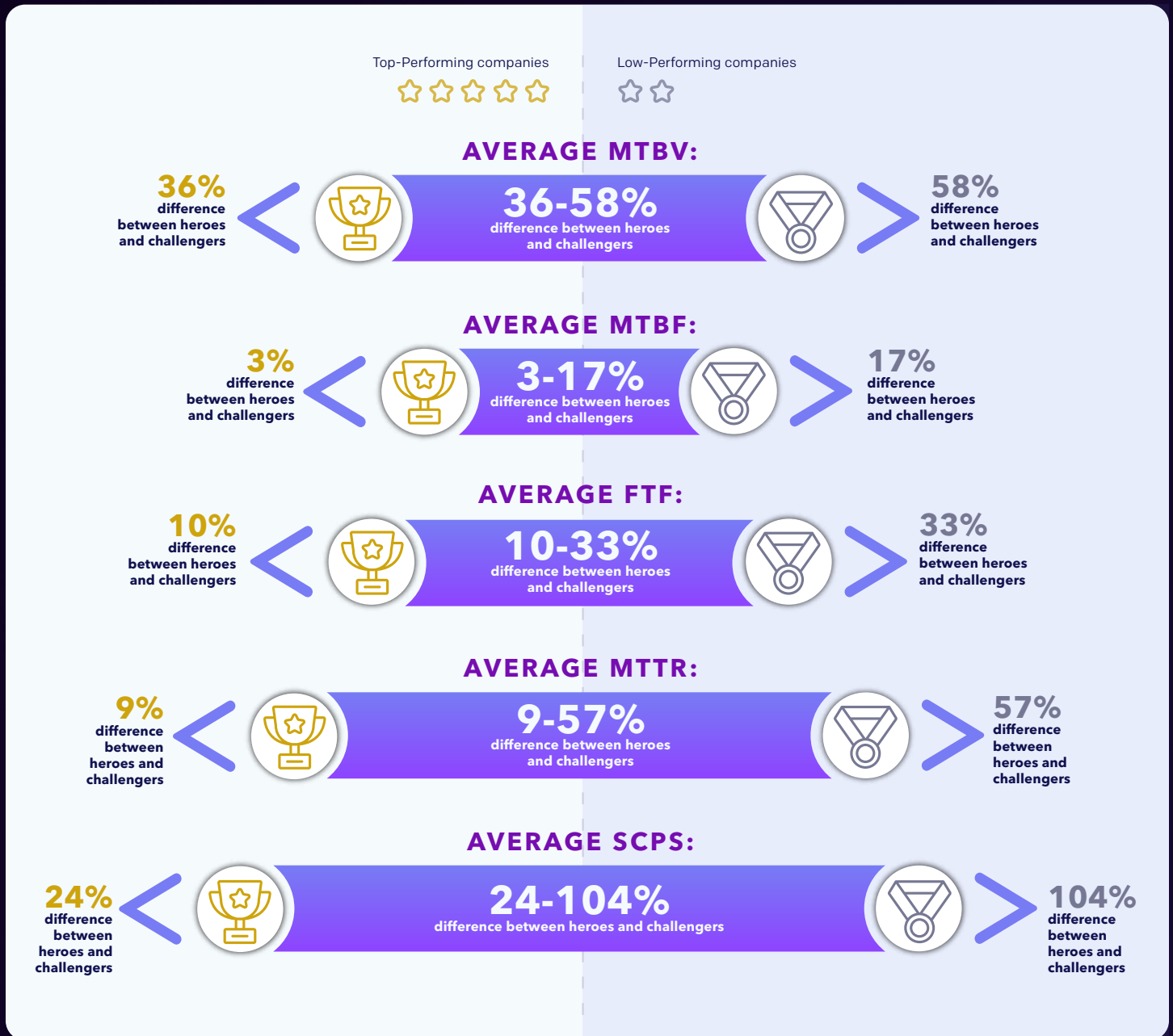
For this report, we calculated the percentage difference between heroes and challengers across all organizations on the following page. We divided it into:

- Above average organizations
- Average performing organizations
- Below average organizations

The Workforce Skills Gap:

A Snapshot of high performing and low performing organizations

The top 20% of organizations have a smaller workforce skills gap. A workforce with a more equal knowledge distribution results in more consistent customer experiences.



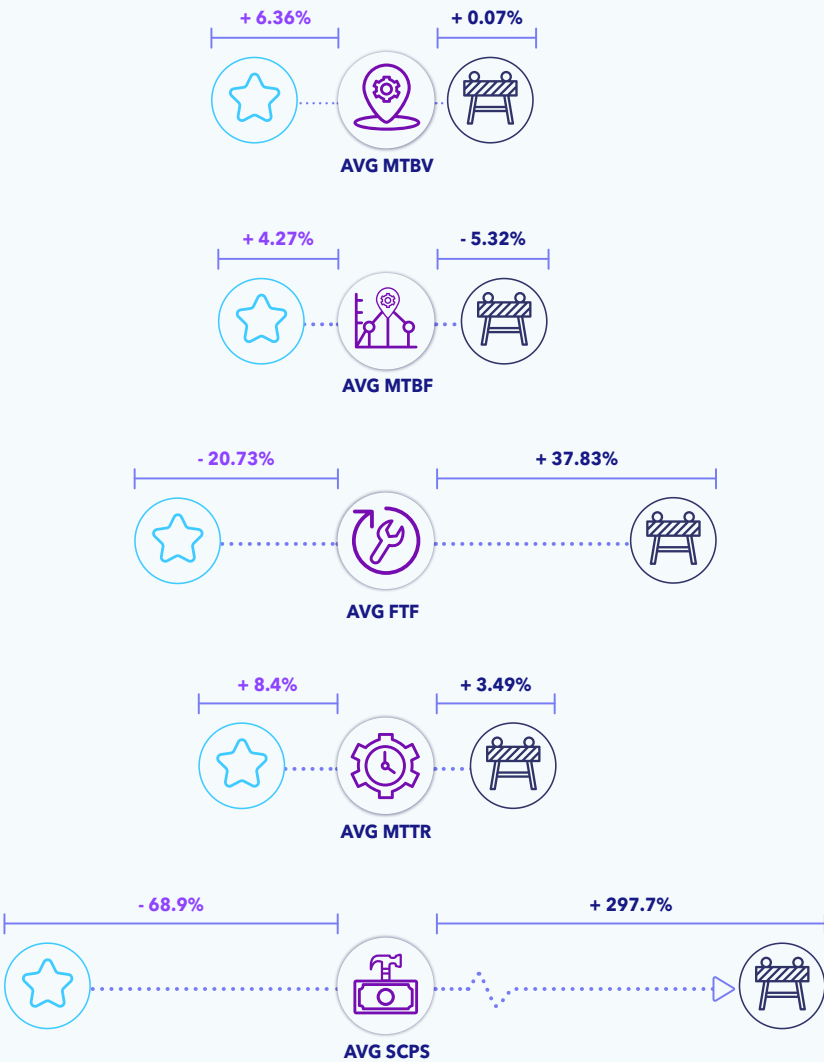
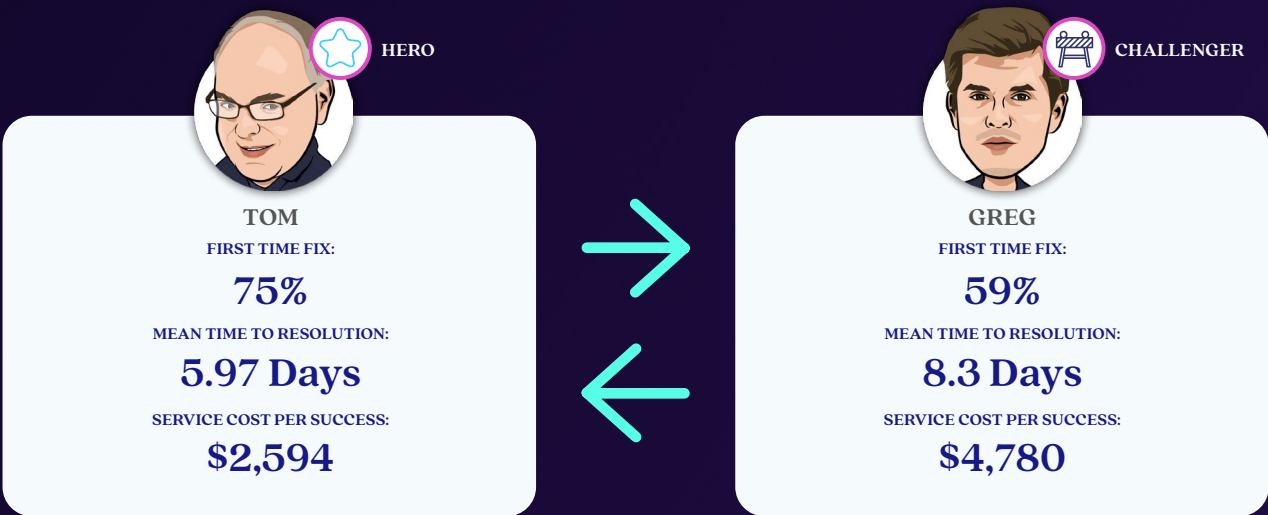
Why the Skills Gap Matters

A bigger distance between heroes and challengers leads to:

- ↓ Decrease in customer satisfaction
- ↑ Increased workload on your already overburdened experts
- ↑ Increase in service costs
- ↓ Less capacity for organizational resilience
- ↓ Negative impact on growth

The Skills Gap - A Snapshot of Individual Technicians

In addition to measuring organizational knowledge gaps, we took a closer look at key trends between the 31,000 technicians included in the dataset. Based on the averages, this is a good representation of the service workforce as a whole.



Key Observations:

This is one of the clearest indicators of why using multiple metrics is the key to uncovering accurate workforce insights.

There is a moderate gap between heroes and challenges in First Time Fix. But upon taking a look at the Service Cost per Success, it becomes evident that this massive gap leads to skyrocketing service costs.

Part IV:

Conclusion

What's Next?

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The service industry is facing unprecedented workforce shortages and increasing customer demands. A better way to overcome these challenges is to understand your business on a much deeper level than you do today so you can tailor service for every customer. [Here's where to start.](#)



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