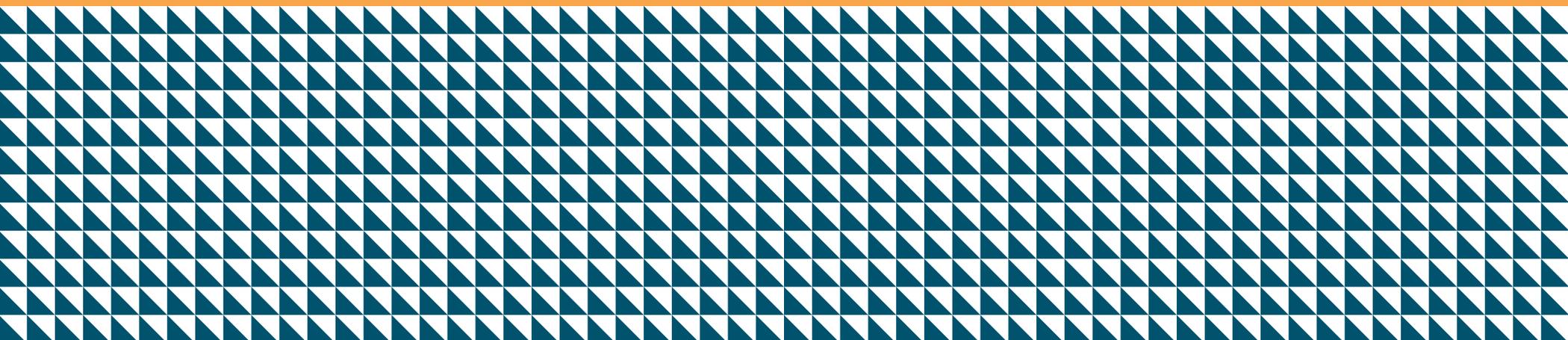


THE 2018 QUALITY CONTROL REPORT

# THE IMPACT OF DEFECTS ON MARGINS, SPEED AND CUSTOMER LOYALTY



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## Executive Summary

A lot is on the line every time an order goes out to a factory— including timelines, relationships, brand integrity, and of course money. And all of it could be put in jeopardy if the resulting goods are poor quality.

But rather than being treated as a linchpin to the industry’s success, quality is too often relegated to the sidelines or viewed as an expense rather than an investment—and the resulting issues related to defects in finished goods highlight the problem with this approach.

Defects are an insidious problem that siphon both time and money from apparel firms each season. Using data derived from an exclusive Sourcing Journal survey, this report calculates just how much quality control measures are costing the apparel industry in terms of both days and dollars. It also highlights the ways in which inconsistencies in product quality create a domino effect throughout the supply chain and how the current processes designed to

correct for that actually undermine overall industry efforts toward efficiency and speed.

While the survey respondents enumerated many causes for the current predicament, ultimately they said problems are often caused when quality is:

- Misunderstood or overlooked by the C-Suite
- Stuck in the past, relying on old technology or antiquated measures of success
- Sacrificed in favor of speed and cost concerns

The feedback derived from the industry-wide survey also revealed the frustration industry insiders sometimes feel about the way their companies or their supply chain partners address quality.

While only 23 percent admitted that their companies will sacrifice quality to get the right price, those polled were very vocal in the variety of ways they do just that every day. Additionally, 75 percent say they’re challenged by speed to market, prompting respondents

to comment on how shorter timelines negatively impact their company’s quality efforts.

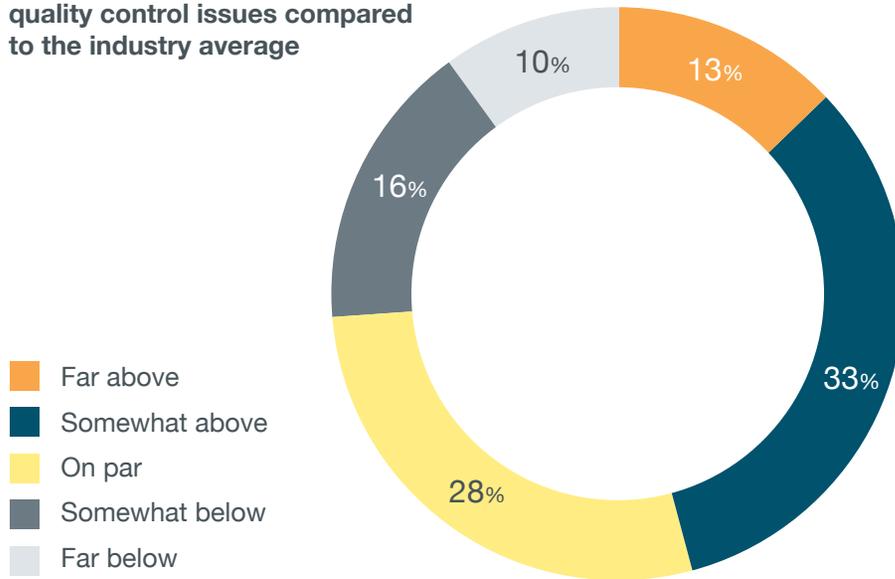
Respondent comments repeatedly noted how “shortening lead times and downward price pressures” threaten margins, create bottlenecks and lead to the need for more manpower in the inspections process.

If there is one universal theme to the survey results, it is that the industry needs to re-examine how it views quality, how it is dealt with and the ways in which it is a direct result of every decision that’s made on the way to creating goods from start to finish.

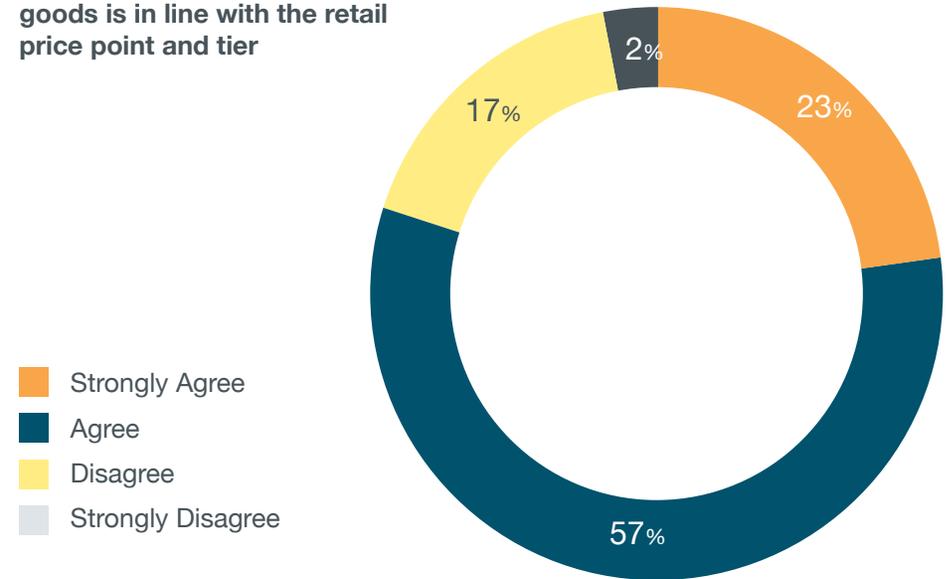
Gary Ross, president of GE Ross Consulting LLC, said that from his decades-long career, it is clear that many of the time and money losses incurred with every production run could be avoided with a change in mindset.

“It’s process control,” he said. “Engineering quality in up front will save pain in the back end.”

How respondents see their quality control issues compared to the industry average



The quality of my company's goods is in line with the retail price point and tier



## CONSUMER PERCEPTION

Speed, cost and quality—too often companies are sacrificing at least one in pursuit of the others. And in this cost-conscious, speed-to-market world, quality is sometimes the odd man out.

Ask industry insiders though—and we did—and you'll find that the vast majority acknowledge that no one is going to purchase garments that repeatedly disappoint.

More than 90 percent of those surveyed recognize that defective

merchandise can erode their brand's perception.

As a result, **95 percent of respondents said that quality is a priority for their companies.**

However, even given the uniformity of these findings, when asked how they would improve their company's QC process, some respondents indicated the first task would be getting everyone on the same page. One person said that in order to make changes,

they'd need to "convince management that quality matters." Another called for a "restructuring" of their company's quality management to bring about a "holistic approach," and alleviate "excessive reliance on suppliers' quality management system and processes."

Comments like these imply there's still work to be done. In fact, 46 percent estimated they have more QC issues than the industry average. Only 26 percent think they have fewer, and 28 percent guessed

they're on par with the average.

In terms of meeting consumer expectations, the majority feel their brands are just about where they should be. **Eighty percent said the quality of their products is in line with their retail prices.**

93%

Those who say quality is a priority for their company

## SPEED BUMPS

Only 5 percent of respondents say the industry's insistence on speed to market is not a hindrance to quality efforts. The rest are challenged by it. Almost a third characterized the pressure to move faster is "very challenging."

When asked what proved to be their biggest issues related to quality, several respondents noted variations on the same theme, including "fast production and small quantities," "compressed lead times" and simply "time."

At TexOps, an active and sports apparel manufacturer based in El Salvador, the company doesn't blindly adapt to clients' speed mandates. If it can't be done well, president Juan Zigelboim said, he'd rather pass on a program. "You set yourself up to fail because you've allowed yourself to be bullied into a [timeline] that is not realistic," he said, adding "you'll suffer the consequences."

### Challenges companies face to produce quality garments

The need to make the highest margin



The pressure to improve speed to market



Inefficiencies along the supply chain



A lack of communication between brand and factory



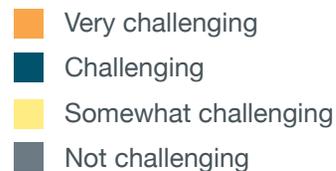
Lack of innovation at the factory



Inspectors' lack of experience



Consumers' focus on low price



## SPEED BUMPS CONT.

And those consequences could come in the form of hefty chargebacks and even losing a client for good. “Unfortunately, a lot of factories just want to produce and get it out the door, but they’re taking a huge risk because all it takes is one customer at retail to return something and that will cause a chain reaction that goes back to the factory,” he said.

Our survey shows that for **76 percent of respondents, between 1 and 3 percent of returns are due to defect issues.**

Holding the line on quality is becoming increasingly difficult for intimates label Commando, as speed to market and other pressures mount. “Every year we’re being pushed to get production to market faster than we ever thought possible, and we’re also being asked to give a wider variety of product every season,” said supply chain manager Stacey Fillion, adding the result is an accelerated pace of new fabric introductions. “We’re catching defects on the

back end as they’re coming in the door, and we have days to get them out to the customer.”

In their zeal to go fast, Ross of GE Ross Consulting LLC, said some factories forget to analyze the critical path before making decisions. For example, he said, “If the machine can only do 150 pockets an hour, we can get it to 160 and they’re a little crooked. At 162, they’ve very crooked.”

Overall, survey respondents said remakes undermine speed to market, causing production to drag on anywhere from 5 to 20 percent longer than it should.

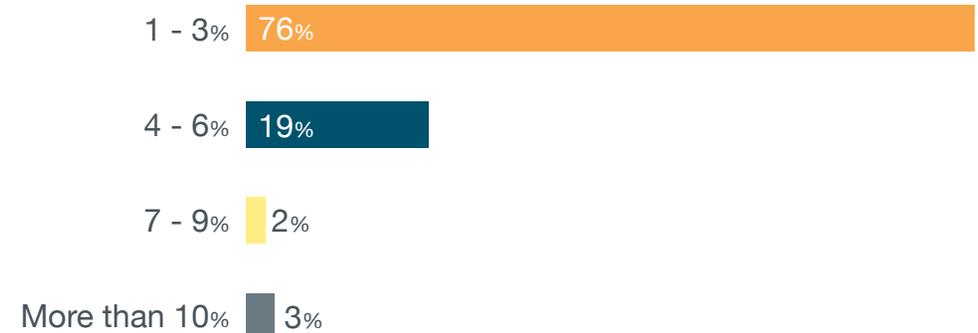
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**[We need] early enough testing and aggressive QC to flag issues, leaving enough time for correction.**

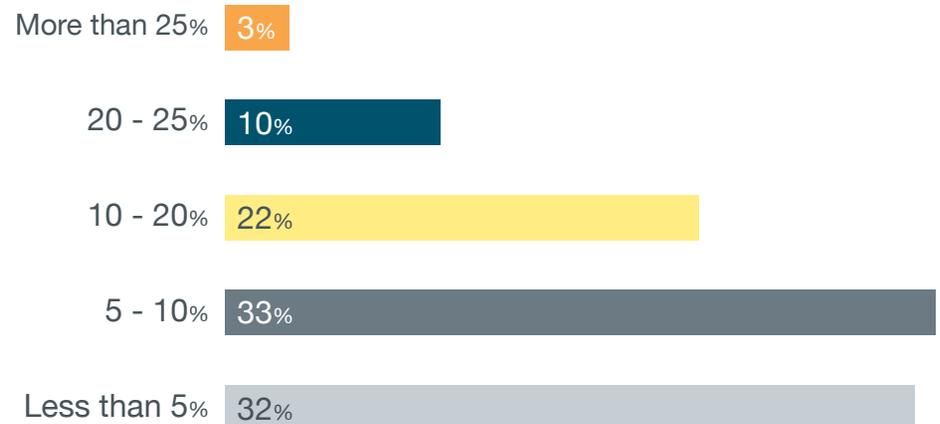
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## Impact of defective merchandise :

### Product return rates due to defects



### The amount of time remakes add to the production schedule



## MONEY MATTERS

Further, **almost a quarter of companies represented in the survey say remakes cost between 2 and 3 percent of revenue.** Fifty percent say they waste about 1 percent of revenue.

Ironically, 65 percent noted margin pressure as a leading challenge to producing quality goods. An equal number also find consumers' demand for low prices to be a challenging or extremely so.

"When labor was cheap in China and many countries, it was 'I won't make it right. I'll just fix it later,'" said Ross, who's career spanned posts at Liz Clairborne, where he was vice president of knitwear, and Avon Products, where he held the vice president of global supply chain title. "I would argue, it's cheaper to make a first quality garment than to make a second because if you make a second, you've got to stop and fix it."

It's a philosophy Zigelboim shares. He admits his company is often more expensive than the other guys, but he's also seen clients who've walked away come back because the cheaper first

costs ended up costing them in the long run. "Our defect rates are miniscule. It's rounding errors," he said. "So whatever price we charge, [they know] it's going to be delivered at the time they wanted and how they want it."

Fillion said Commando recently had to cut ties with a factory that offered great pricing because they were never able to produce up to the company's standard. She said the intimates brand is vigilant because it has to be. "Quality is so important when you're selling a thong for \$24. It has to be perfect and last a long time," she said. "We will not send a product with a defect to the stores."

Because Commando produces the majority of its collection domestically, Fillion said the company's costs are higher than competitors' that manufacture overseas—but the benefits are worth it. "We have a lot easier time managing [production]," she said, adding she's in the factories every couple of months. "Even though we're paying more, we have eyes on the situation and we have a great relationship with them."

Fillion also said her core contractors have been with Commando from the beginning, a factor that means they're willing to go the extra mile for the company.

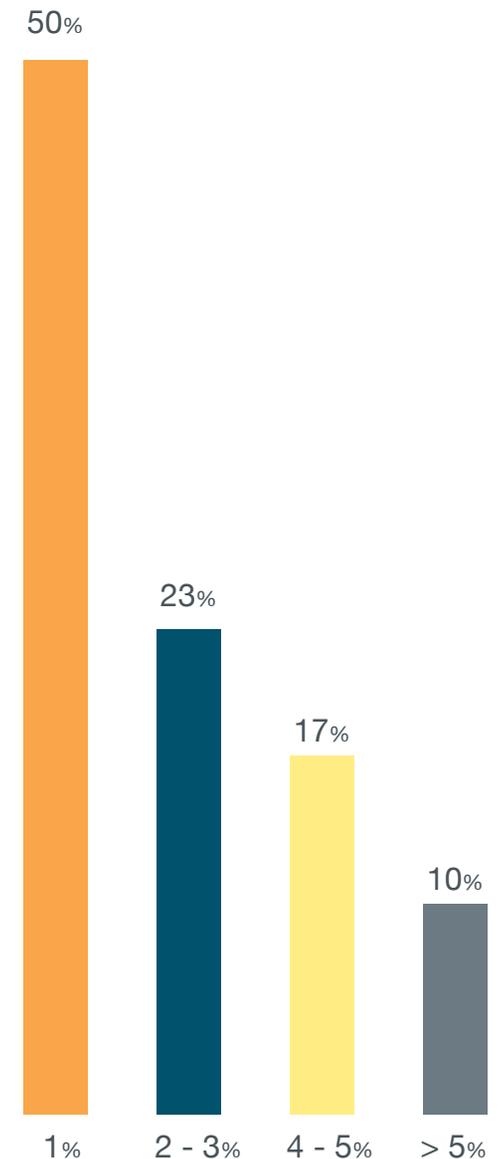
Creative Apparel Solutions, which creates private-label collections for a variety of retail partners, prides itself on being that type of partner to its retail clients. "We're long haul players," said CEO and president Bruce Zeitlin. "We'll spend more now [on QC] even if it means we'll lose a little money to make sure we don't lose their business in two years or five years."

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**Team assumes the FOB price defines the quality standard of a product and thus skips steps.**

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The amount of money remakes add to production costs



## TIME & ACTION

The focus on speed has some trying to figure out where they can eliminate days here and there. To effect real change, however, Ross said companies are going to have to rethink everything. Simply cutting corners isn't an option. "We have to become sprinters in a marathon world. Sprinters train differently," he said.

And a big part of that shift in mindset has to do with engineering in quality rather than inspecting for it in the end, he said. "Minimal time is spent in pre-production," he said, listing the aspects of the materials and design that should be discussed in advance like specific characteristics of the patterns and fabrics. "You [need to] work through what could go wrong because once it's in the sewing machine, it's too late. You can't repair it there."

Several commenters mentioned they'd like to see their companies "building in quality from day one of the design phase" and their employees to "understand quality from initial development stages." In discussing ways to bring about positive changes, another

respondent said "I would take more time to bring new product to market. Taking the time to QC during the design and fit stage." Finally, another said they'd be "proactive instead of reactive."

Commando has seen benefits from getting out ahead of problems. "We've upped our QC to catch things earlier," Fillion said. "We've increased the people in our QC team and hired a manager with a lot more experience. She's embedded in the R&D area so right from the beginning of product development, she's working with them for the integrity of the product, which is extremely helpful."

When it comes to setting the company up for success, those surveyed also expressed the need to insist on better raw materials. They say they need to focus on "obtaining raw material sources that have a high level of value on producing quality materials (quality over speed and cost)." But too often they're beholden to factories who they rely on to "buy the right fabric, trims etc and not take shortcuts." And ultimately

they want "'zero' tolerance for fabrication errors."

Zigelboim said TexOps has long since recognized the importance of raw materials and thus only works with the best suppliers. "Starting with a good raw material base, you're way ahead of the game," he said. Following that philosophy, the company has weeded out many textile partners and focuses on one mill in particular because they are consistently top notch. "It's cheaper to go with a more reliable vendor than one that's cheaper."

He said counting pennies on the front end could result in multimillion dollar chargebacks in the end if, for instance, that cheap heat transfer falls off in the wash.

Commando, too, is beginning its due diligence earlier when it comes to raw materials, especially

with new fabrications, Fillion said. "We're getting better at finding root causes," she noted, calling the last two years "a huge learning curve."

For Zeitlin, the desire to use quality materials is only as good as the quality control measures—and these days, that's a major problem.

China's effort to reduce pollution and protect the environment has led to crackdowns on some factories. The result, Zeitlin said, is that many dye houses and mills have gone out of business.

"It puts extreme

pressure on the remaining dye houses to meet a greater need, so they end up rushing or their internal QC isn't as strong," he said. "It's the biggest concern and worry because if the experiences of the past five years, which have amplified, continue to amplify at the same rate, then the world will have some very serious sourcing issues in 5 to 10 years."

**“ Chinese textile delays are lengthening lead times and customers are pushing to shorten. ”**

## FACTORY IMPROVEMENTS

**Just under 50 percent of respondents reported that defects occur in 2 to 3 percent of their production runs.** Almost a quarter (23 percent) said defects are found in 1 percent.

**For 66 percent, defects cost their companies between 1 and 3 percent of revenue,** while 21 percent peg that number at more than 5 percent (see graph on page 9).

A few of those polled blamed outsourcing and “subcontractors in the manufacturing process” for the issues they face. But no matter where the work is done, many indicated that quality problems stem from inexperience at the factory level.

One person summed up that group’s sentiments stating, there needs to be “more qualified people at production locations.”

Beyond the factory workers themselves, there was also a clear outcry for an improvement in the inspections process. While only 31 percent of those polled indicated they find inspectors’

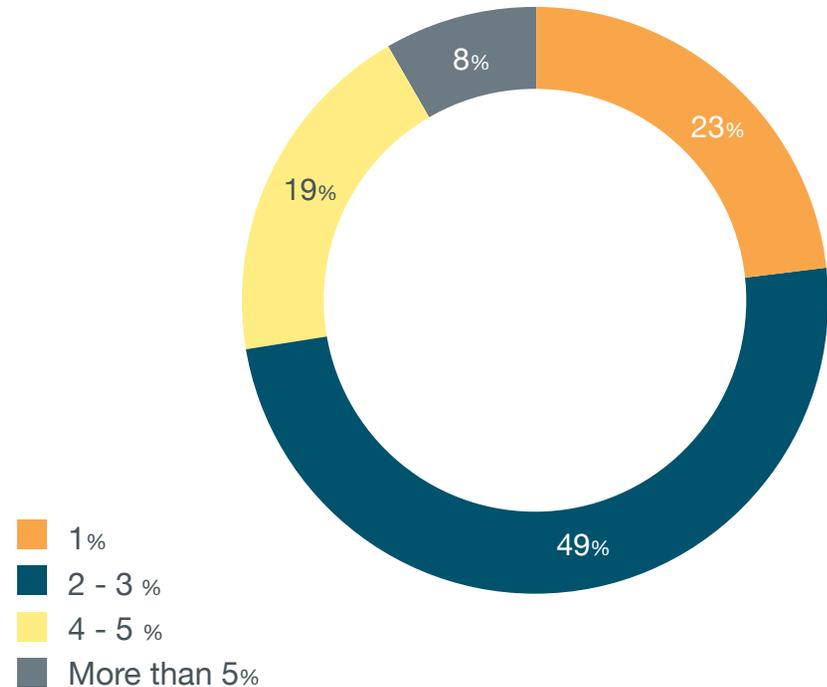
inexperience to be “very challenging” or “challenging,” they were a vocal group.

One asked for “more training of inspectors and factories.” Another said, “hire more people to run inspections and more often.” Finally, one would like to “hire better educated inspectors but price points inhibit this process.”

One respondent lamented the “human factor involved in all parts of apparel manufacturing” as a major hurdle. To compensate for this issue on the factory floor, the experts agree that operations need to be deskilled as much as possible. The less reliant you are on the hand or the eye of the machine operator, the more consistent and accurate the product will likely be, Ross said.

This is where technology comes in, according to Zigelboim. “Technology is a big deal. We cut with automated cutting, which takes out the human error element,” he said adding that by using state-of-the-art equipment that’s well maintained, he’s able to avoid a lot of problems. “If you

The defect rate for a typical production run



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**[We’re struggling with] old processes and lack of technology when the world around us has moved forward.**

”

## FACTORY IMPROVEMENTS CONT.

don't cut well, you won't sew well.”

Fewer errors mean fewer remakes, which keeps the line moving, Zigelboim said. Additionally, he credits 3D simulation tools for cutting costs and speeding up timelines. With these tools, he said “you're not investing in making samples and trial and error and trial and error. You do it virtually, and once you think you've got it right, then you make the approval sample, so it saves time.”

Ross warns that innovation alone won't solve the problem however. “Many can't articulate the problem they're trying to solve, and if they don't know, then they've made these massive investments in tech that are not going to deliver on their expectations because they don't know what their expectations are,” he said.

In short, it starts with people.

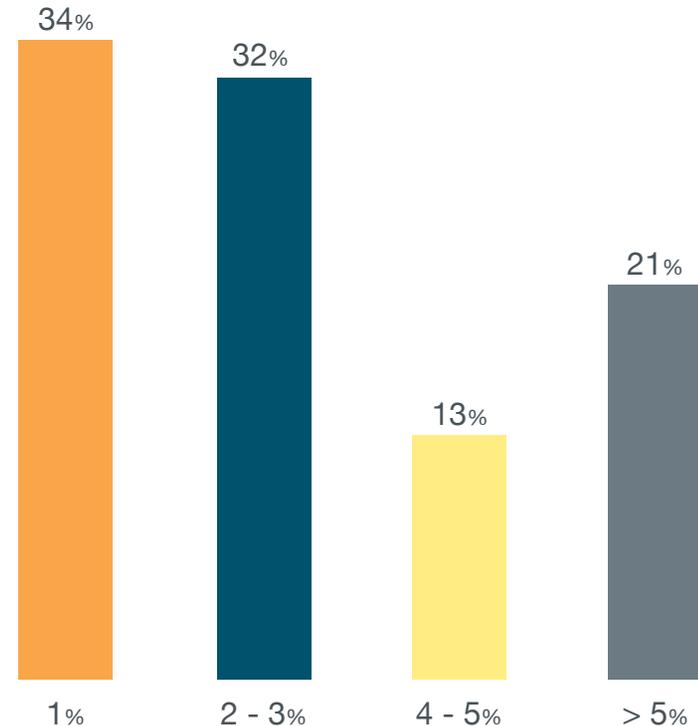
“When you look at our industry, we're not necessarily turning out the experts we once had. I was fortunate that I started on the factory floor,” he said, adding that practical experience is in lower

supply today. “That firsthand experience is very different than someone who is a desk jockey.”

Zigelboim has found that it's important to augment the experience with education. That's why TexOps, not only invests in tech but also its employees, putting in place masters of business administration programs to create knowledgeable leaders. “[In the past,] you had a supervisor of a line who had some college training but not much more than that [but] then there's limitations because they don't have the training to look at the overall picture,” he explained. “Our overall picture is very simple. It's quality, and the subset to that is that the earlier you catch something, the better it is for everyone.”

Additionally, Zigelboim said working with clients that also have the combination of book smarts and firsthand factory, garment construction and production experience helps in the decision making process because they can conceptualize things, and they understand the limits of what's actually possible.

The cost of defects as a percentage of annual revenue



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**We need to be living up to set standards & putting goods in the right factory, not necessarily the lowest cost factory.**

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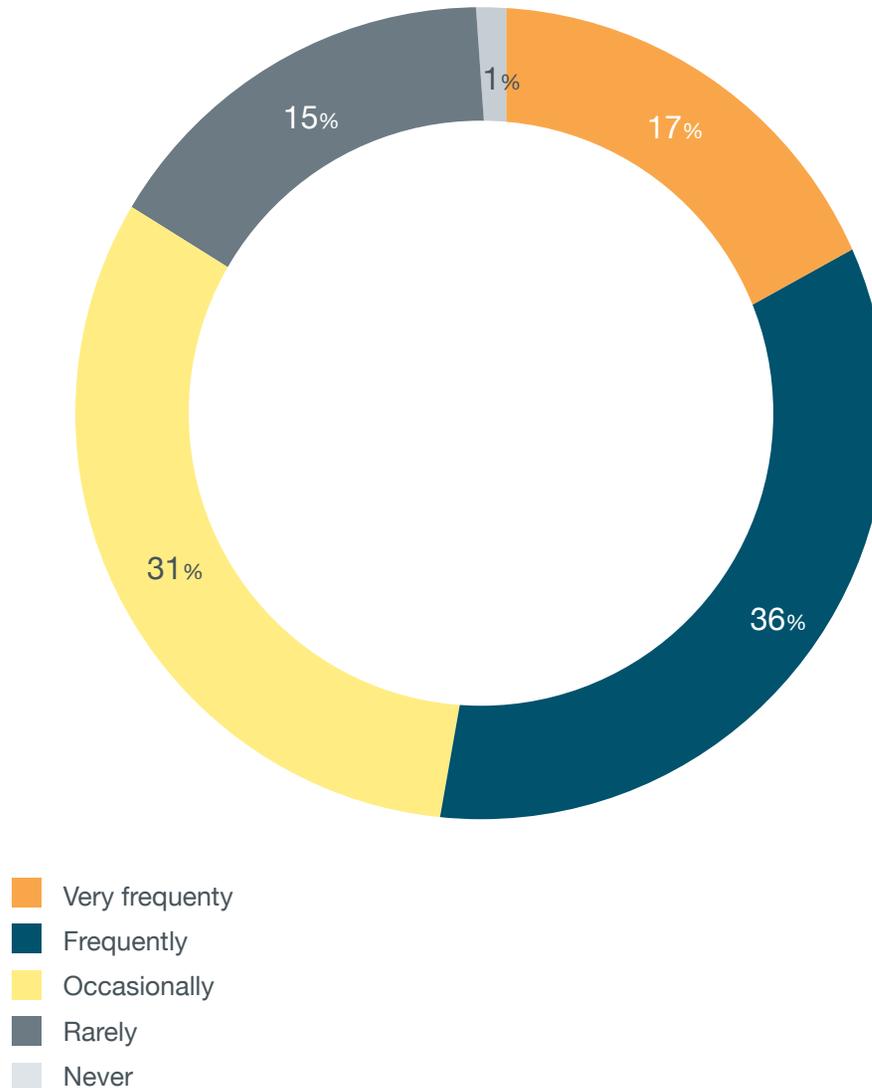
## INSPECTION IMPASSE

While the amount that companies spend on inspections, remakes and defects varies widely based on factors like the size of the brand and its orders, some respondents remain unconvinced that the investments their companies are making are paying off.

For instance, they questioned whether the current level and type of inspections are working. At least some are calling for less reliance on final inspections, which come too late to be effective in avoiding errors and identifying root causes.

One commenter said they'd like to "improve DUPRO [during production] efforts," while another wants to "add in-line & an additional end of line QA inspection." One other noted the role factory workers could have in identifying issues, if given the chance. "Making factory employees feel empowered to bring up a defect or problem as soon as they notice—too often it gets passed along through the chain, only to be discovered at the final inspection or worse, by the consumer," they said.

The frequency with which factories are able to uncover the root cause of a defect



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**Very few factories we use can actually deliver a consistent quality product without our micromanaging.**

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## INSPECTION IMPASSE CONT.

Even among these requests for more inspections, there were others who regret the need for so much babysitting in order to get quality correct. One wrote, “very few factories we use can actually deliver a consist quality product without our micromanaging.” Another echoed that sentiment, saying their “vendor base’s complete lack or (or very limited) quantity process control” is their biggest challenge.

In response, Ross suggested factories look at how they’re set up, saying shorter lines or other changes could improve quality. “Some sewing lines could have 30 to 42 people so it could take a week before the product comes out,” he said. “You go to modular manufacturing, you see the defect a lot faster and it helps with small runs at high speed.”

While **57 percent of those polled feel their companies spend too much time dealing with reoccurring quality issues**, just over half (63 percent) said their factories are able to discover the

### Respondents’ opinions on their company’s quality control measures

My company is willing to trade product quality for low cost



My company assumes defects are the cost of doing business



My company spends too much time dealing with the same quality issues



Disposing of defective goods undermine my company’s sustainability efforts



The factories my company works in unearth the cause of defects to avoid recurrences



- Strongly agree
- Agree
- Disagree
- Strongly disagree

**76%** | Those who say their companies are trying to improve on quality

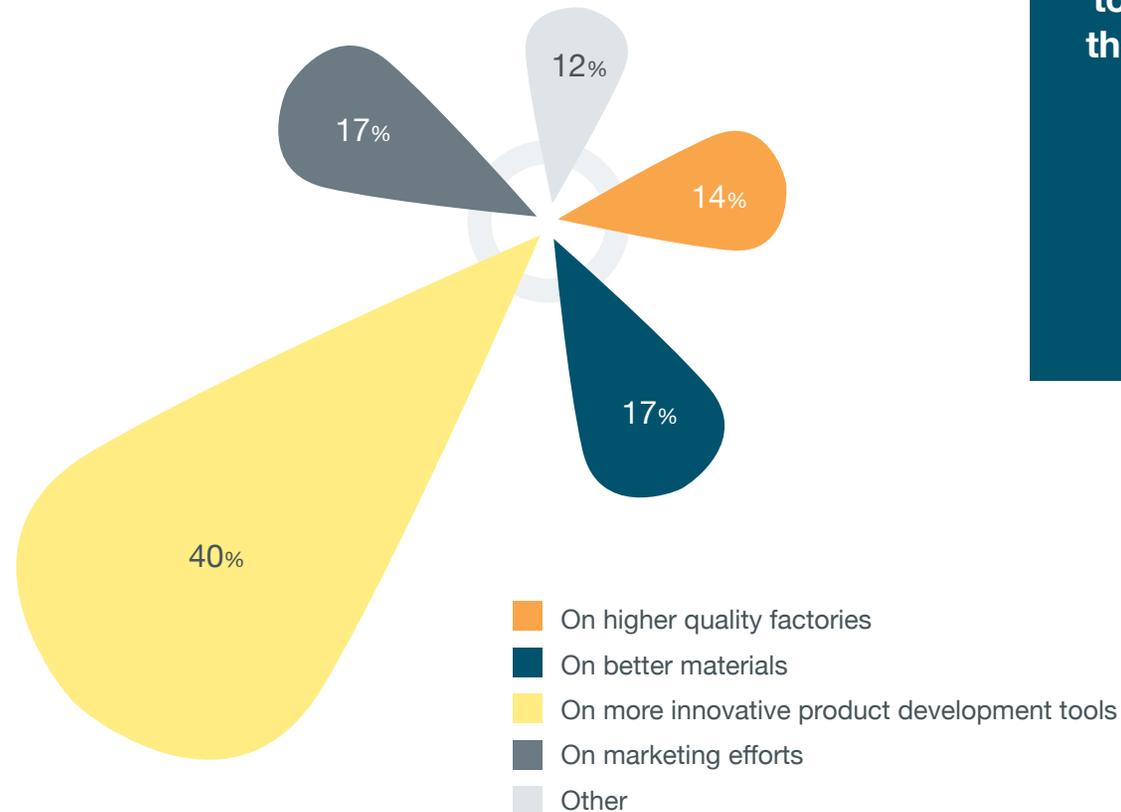
## INSPECTION IMPASSE CONT.

root cause of defects, alleviating the dreaded endless cycle.

According to Ross that number could increase even more if brands, retailers and factories learned to use one valuable tool that's often overlooked. "They have to use data to understand what the defects are," Ross said. "The data will set you free."

If they were able to get defects under control and ramp down their spending on inspections, 40 percent said they'd invest that money into buying more innovative product development tools. Others said they'd be able to use the funds to work with higher quality factories, select better materials and improve their marketing efforts.

How companies would allocate funds if policing quality were not necessary



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**[Companies] have to understand what the defects are. The data will set you free.**

**—Gary Ross**

”

## CONCLUSION

The industry is looking for a way to produce quality goods that is less time and resource intensive. While some solutions seem straightforward—like only working with factories that exhibit high standards or using 3D software to create more accurate designs—they also fly in the face of conventional apparel manufacturing thinking, which rewards the lowest first costs. That mindset may be why rooting out defects—and the behaviors that cause them—aren't at the top of every executive's to-do list.

Instead, quality continues to suffer due, in large part, to three main causes:

- margin pressure
- speed to market demands
- inefficiencies along the supply chain

The irony is that in an era when speed is king, efficiency is trumped by remakes. Similarly, at a time when brands and retailers

alike are attempting to funnel as many resources into tech enhancements as possible, the funds that could be used to invest in these more innovative tools are tied up in defective products or the quality control process itself.

Survey respondents who felt their companies could be doing better in this arena offered a wish list of improvements. The most frequently repeated were:

- starting the process earlier
- making everyone responsible for quality
- having better inspections along the way
- investing in quality suppliers and factories
- remaining consistent in these efforts

While the need for change is apparent, it's clear that not every partner along the supply chain has recognized the part they play in ensuring product quality.

## METHODOLOGY

Sourcing Journal surveyed 93 people across the apparel, accessories and footwear industries on their views about product quality, the impact defects have on the market and the ways in which processes need to evolve. The online survey was conducted from August 10, 2018 to August 27, 2018. The participants were recruited to participate through email invitations that were sent to the entire Sourcing Journal readership. A sweepstakes to win a \$500 gift card was used to incentivize participation.

About a quarter (24 percent) are employed by retailers, while 20

percent work for fashion brands, 16 percent by suppliers and 12 percent by factories. The majority (85 percent) work for businesses that offer apparel, 40 percent accessories, 26 percent footwear, 22 percent textiles and 20 percent hard goods.

The majority of the respondents (85 percent) were in management positions, with 59 percent in C-level/top management roles. The respondents were involved in all facets of sourcing (55 percent), production (37 percent), product development (37 percent), quality (27 percent), R&D (27 percent) and supply chain (26 percent) roles.

## ABOUT INSPECTORIO

Inspectorio is the cognitive quality and compliance platform empowering a transparent network.

Inspectorio offers an unmatched quality inspection and compliance verification Software-as-a-Service (SaaS) platform, delivering unparalleled efficiency, transparency and accuracy.

The company's powerful network dynamic empowers organizations to build a digital ecosystem around their global supply chain. Inspectorio optimizes the flow of information and improve connectivity between key stakeholders by leveraging cognitive computing and developing robust algorithms for automation.

Inspectorio features: real-

time data sharing, predictive-recommended action plans, defect prediction algorithms, risk assessment, compliance verification, adaptive inspection process, real-time supervision of inspection execution, process automation, customizable work flows, corrective action plans and location-based action plans, and automated sustainability assessments.

These key features create continuous and mutual value, secure operational efficiency, and increase return on innovation.

Trusted by major retailers and brands, Inspectorio accelerates the seamless transition of forward-thinking organizations to a digital and interconnected supply chain.

