CRUSHED 2021

The Safe in India Foundation's annual report on the state of worker safety in the Indian auto sector

क्रश्ड २०२१

सेफ इन इंडिया का वार्षिक प्रतिवेदन - भारतीय ऑटो सेक्टर में श्रमिक सुरक्षा की स्थिति

Faridabad, Haryana

A young dream lost to a factory accident

Amjad Khan, from Gorakhpur, UP, dreamt that one day, he would own a luxury car. Little did he know that a job he would soon take up at an automobile factory would crush that dream.

When his school in Gorakhpur shut down during the Covid lockdown, Amjad's father asked him to join him in Faridabad. A young Amjad soon started working as a helper at an auto-component factory, where the management prefers to hire migrant workers as "they can control migrant workers better and dissuade unionizing activity."

Initially, he worked as a helper: packing, loading, and unloading materials. Within a month, the supervisor asked him to help on a power press. The only 'training' he received was an instruction: "samaan nikal le" (remove the waste). Soon enough, the press operator pushed a wrong button, resulting in an accident to which Amjad lost his whole right hand.

According to Amjad, no machine in the factory had sensors and no safety rules were followed. And these accidents seem frequent: Amjad himself is aware of at least two other amputations with the same contractor to this factory.

The accident was not the end of his hardship: The Employees' State Insurance Corporation (ESIC) has yet to approve his disability benefit even after a year of injury. They claim to not have received the required paperwork from Amjad's employer.

Despite this devastating turn of circumstances, Amjad and his family soldier on: He has begun working again in what he believes is a "permanent job, but he receives no paid leave or festival bonuses that permanent workers get. He only gets paid for the number of days he works for.

"Who can fight destiny," his father says. "Even with the other hand, one can do wonders. That he is standing in front of me is enough." "जब तक मैं जिंदा हूँ, तब तक इसके लिए कुछ न कुछ तो कार्बे करेंगे। ऐसे नहीं इसको छोड़ देंगे।" ("As long as I am alive, I will keep doing something or the other for him. We will not leave him like this.")

Sidkul, Uttarkhand

Unsafe, unpaid, and expendable

22-year-old Bhupal has been working since 2014 at Sidkul, a suburb of Rudrapur, which is home to numerous auto-part manufacturing factories. A migrant worker, he lives in a rented accommodation in 'Transit Camp' with several of his colleagues.

Bhupal was a bright student, but he had to give up schooling and support his mother and himself while his alcoholic father, who occasionally found daily-wage work, spent all his earnings on drinking. On June 1, 2021, Bhupal joined a subsidiary vendor company of Bajaj Auto. Just eight days into his job, he lost his thumb and two other fingers to a press machine.

Although he has been given work in the same factory, he is unable to cope with heavy manual labour. He has also not received any of his wages. The company, when asked, says that "they have yet to decide his rate." He has now incurred a debt of Rs. 50,000, which is mounting.

He has since approached the district magistrate and the labour courts, but to no avail. In search of justice and adequate financial compensation, he is angry with the treatment he has received.

Automotive Component Manufacturers Association of India

Safety is a virtue that cannot be compromised

Let me at the outset congratulate Safe in India for the 3rd edition of its report 'CRUSHED 2021'.

This report, like its earlier editions, is a continual reminder to the automotive industry to improve upon plants' and workers' safety across the supply chain, especially in the Tier-2 and Tier-3 segments. Whilst the industry has actioned on some of the recommendations of the earlier reports, yet a lot more needs to be done.

It is no doubt that to be a truly world-class industry, safer working conditions are a necessary must for our workers. ACMA is committed to strengthening its members' capabilities including safety standards and upgrading people skills. About 15% of the content of ACMA's cluster development programs is now devoted to workplace safety, and I am hopeful that this will start delivering results soon.

As a next step, the suppliers and the OEMs need to work together to put in place a model supplier code of conduct for safety, establishing industry standards for safety while demonstrating best practice, establishing regular effective communication in the supply chain on worker safety and its benefits, and providing accessible worker safety information in the public domain, with an objective of making worker safety a core value of our organisations.

Once again, my compliments to the Safe in India team for their efforts in creating awareness and initiatives transforming workplace safety in the automotive industry. ACMA is committed to bringing down workplace mishaps and accidents in its membership.

Sunjay Kapur
President, ACMA

To the boards of auto-sector brands and the central and state government labour ministries

Across India, millions of migrant workers toil away in precarious conditions, with no social security and without feeling safe enough to invest in their own or their families' health and education, while we want them to work twelve-hour days, six days a week.

What will it take for us to notice them: a pandemic like Covid or reports like this? What will nudge us to make their lives better, by making them partners in our growth?

In this third edition of the CRUSHED series of reports, we again show, with irrefutable evidence from three Indian states, the terrible state of manufacturing units in the auto sector that are mutilating thousands of men and women every year, across the country.

We have always argued that the auto sector brands need to take ownership of this issue, as they have the capital, the expertise, and the most influence over their supply chains and over government policies and their implementation. We are encouraged by the positive response from some of the top ten brands we have engaged with, though Maruti-Suzuki's response has been most significant yet. We hope others follow suit.

Our engagement with the central and state governments has progressed, too, albeit sporadically. A few actions taken by DG FASLI, ISH-Gurugram, and by other agencies such as BIS are reassuring; a lot more is needed from them.

This is still the beginning. There is a long way to go to make these factories safer and more productive, as witnessed by India's abysmal 115th rank in labour productivity.

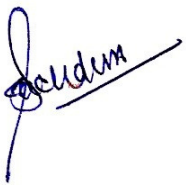
We hope that CRUSHED 2021 serves as a reminder to guide much-needed progress. As always, we have many to thank for the creation of this report: Chitra Khanna, Rishabh Malhotra, and Nayan Jyoti for their tireless effort on the content; Brandscape's data analytics support; our operational team on the ground for the evidence on which this report is founded and their effort to bring these stories to you – Hari Varma, Sandeep Singh, Masab Shamsi, Amitesh Kumar, Mrinal Keshari, Jitendra Kumar, Narottam Jatav, Mukesh Tiwari, and Aaroshi Bidhuri; Radha Khan for authoring worker stories; and Swetha for editing/design. Our Shramik Saathis have, more than anyone else, expanded our reach in the worker communities. Last but not the least, our utmost gratitude to the workers themselves, who share their stories with us!

We also owe deepest respect to our safety advisors Dunu Roy, IV Rao, Prof Ravi Srivastava, Sanjay Srivastava IAS, Prof Shyam Sundar, and communication advisors Dipti Tandon, Rahul Kansal, Nirmal Dayani, and Avik Chattopadhyay.

Our friends and supporters provided unstinting support, both financial and advisory – the batch of IIMA 91, IITR 88, Azim Premji Foundation and Vikram Lal Family Foundation, to name just a few of the many we are so proud of.

Will we be able to create much-needed change? Can Angulimala transform again? Despite hiccups like Covid, inaction and/or resistance from some stakeholders, and indeed hostility from thankfully only a few, we remain confident of our efforts and in our faith in humanity that will drive you to do the right thing, soon and sustainably.

On behalf of Team Safe in India



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ABBREVIATIONS AND ACRONYMS

ACMA	Automotive Component Manufacturers Association of India
ASDC	Automotive Skills Development Council
BIS	Bureau of Indian Standards
CNC	Computer Numerical Control
CoC	Code of Conduct
DG FASLI	Directorate General Factory Advice Service and Labour Institutes
ESG	Environmental, Social, and Governance
ESIC	Employees' State Insurance Corporation
GDP	Gross Domestic Product
ILO	International Labour Organization
ISH	Industrial Safety and Health
ISO	International Organization for Standardization
MOU	Memorandum of Understanding
MSI	Myoung Shin Automotive Pvt Ltd
MSME	Micro, Small, and Medium Enterprises
NEEM	National Employability Enhancement Scheme
NGRBC	National Guidelines on Responsible Business Conduct
OEM	Original Equipment Manufacturer
OSH	Occupational Safety and Health
OSH & WC	Occupational Safety, Health, and Working Conditions
SCoC	Supplier Code of Conduct
SDG	Sustainable Development Goals
SIAM	Society of Indian Automobile Manufacturers
SII	Safe in India Foundation
SOP	Standard Operating Procedure
YF	Yuvashakthi Foundation

INSIDE

EXECUTIVE SUMMARY

The auto sector contributes 7%+ to the Indian GDP, is half the Indian manufacturing GDP, and employs 30m+ Indians (8-10m in manufacturing). But it is also the hotbed of a grim reality: In CRUSHED 2019 and 2020, Safe in India (SII) brought to light the high incidence of crush and other severe injuries in the auto-sector supply chain and suggested corrective actions.

In this third instalment of CRUSHED, SII further develops the case for systemic action with:

- Data across 5 years and on 2500+ injured workers from the auto sector.
- Assessment of other auto-sector hubs in Haryana, Rajasthan, and Uttarakhand, and case studies from Tamil Nadu and Gujarat.
- Multi-variate data analysis to improve understanding of accidents and injuries.
- Establishing urgency of focus on the "dangerous" power press and legal violations that result in over 50% of these accidents.
- Top 5 recommendations to the auto-sector OEMs, SIAM, ACMA, and the government.

Some highlights from the report:

Every year across India, thousands of auto-sector workers lose hands/fingers	• **80%** of the injured workers met with accidents in the supply chains of some of the largest auto-sector brands • **70%** lost their hands/fingers • **1.97 fingers** on average lost to a crush injury
These injured workers belong to the most vulnerable sections of society	• **92%** migrant workers; **81%** educated only up to grade 10; **71%** earned less than Rs. 10,000 a month (many with no overtime pay despite ~12-hour shifts); **70%** on contract; **62%** under 30 • The lower the salary and education of a worker, the worse the injury • About **70%** received their ESIC Identity Card after the accident and not on the date of joining. These workers/families could not use ESIC through their working lives, until they suffered grave injuries.
The Indian auto sector and its brands have the ability and responsibility to improve worker safety and productivity	• Maruti-Suzuki, Hero, Honda suppliers remain largest contributors to accidents in Gurugram (**93%**) and Faridabad (**75%**). Bajaj, Eicher, JCB, Tata Motors, TVS, Yamaha suppliers also significant contributors in Gurugram, Faridabad, Rudrapur, Neemrana. • Not just a small MSME problem: accidents in **22%** of ACMA members (some of the largest factories/suppliers) • The auto sector has the muscle/influence to prevent accidents and push up Indian labour productivity from its current rank of 115th in the world.
Government data grossly under-reports factory injuries; inspections reducing; the new Labour OSH Code may make matters worse	• **DG FASLI reports c.50 non-fatal injuries** in Haryana (c.2% of national numbers) vs. **c.500 reported just to SII** every year since 2016 • Haryana factory inspections have largely been reducing for years. Penalties for infractions to the Factories Act are rarely imposed and are in any case insignificant to change factory owners' behaviours. • The new OSH & WC labour code has at least **8 major dilutions** of factory safety.
Rampant legal violations on the doubly "dangerous" power press machines	• Over **50%** injuries reported to SII occur on power press machines. • **2x probability** of losing fingers on a power press machine; a worker **loses half a finger more** to a power press than other machines. • A majority of the workers injured on power presses **inadequately trained and have low education** levels. • Young and old workers lose fingers equally on power presses; experience does not seem to make up for unsafe machines. • A majority of the crush injuries were on power presses that should have had safety sensors but did not; other required PPE also often missing. • Most factories violate many extant regulations; potential criminal offenses.

Five operational recommendations to OEMs in the CRUSHED series of reports:

- OEM boards to take responsibility for worker safety in their deeper supply chain.
- Create a joint industry-level task force with SIAM (with some participation from SII).
- Map their deeper supply chain.
- Improve transparency and accountability of accident reporting in the supply chain, weed out habitual offenders and reward safest factories, commercially.
- Initiate ground-level actions, e.g. honest worker safety audits and worker training.

Five policy recommendations to OEMs as reported in SafetyNiti 2021:

- Include all contract workers in own factories in their OSH Policy framework.
- Create, publish, and implement a Supplier Code of Conduct.
- Create, publish, and implement a Standard Operating Procedure for supply chain factories.
- Report annually on SDG8.8 (the only SDG about worker safety).
- Demand minimum compliance from their supply chains. (e.g. all workers should be covered by ESIC from their first work day)

Five operational recommendations to the central and state government (labour code/rules recommendations not covered in this report)

- Drive calibrated actions to achieve the objectives of the OSH Policy, 2009.
- Use accident/injury data from ESIC to determine selection of factories for inspection and conduct safety surveys.
- Create a reliable accident/injury reporting and governance system, and use it for ongoing improvements.
- Set up a confidential helpline for workers to report unsafe working conditions and accidents in factories.
- Develop a practical policy and mechanism for safety training of contract and migrant workers.

The auto sector OEMs, SIAM, ACMA, the central and state governments and their OSH agencies have begun reacting to SII's recommendations in a slow, mixed manner:

Among the top three OEMs that SII has pursued since 2019, Maruti-Suzuki has taken the most initiative, with Honda and Hero lagging. Among the other seven of the top ten OEMs pursued from late 2020, Eicher and Hyundai have recently started engaging constructively. Ashok Leyland, Bajaj, Mahindra & Mahindra, Tata Motors, and TVS need to do better.

SIAM and ACMA have also agreed a number of actions, such as a standard Supplier Code of Conduct for OEMs, a business case for safety, and the creation of OSH training materials for workers. ACMA has started some of these actions but SIAM needs to pick up pace.

The Central and Haryana State labour ministries have set up working groups based on SII reports but their outcome is not public. DG FASLI has agreed and started a few actions, including the first ever worker OSH training. ISH-Gurugram has agreed to create a joint action "platform" including Maruti-Suzuki, Hero, Honda and SII, and which in its second meeting this year agreed to a few positive actions, such as safety assessments of an auto cluster. The MSME ministry has signed an MOU with SII for joint action. The BIS has formulated a panel to consider ISO standards for power press safety. There are several other initiatives in various stages, all of which are steps in the right direction.

SII's role in driving change

SII will continue its healthcare and compensation support and knowledge-sharing initiatives with workers while pursuing all relevant stakeholders to push the worker safety agenda, specifically in the auto sector. The aim is to help drive a gradual, observable reduction in these accidents and an improvement in the Indian labour productivity.

There's a long way to go. Let's join hands to save hands!

1

The Issue: Uncountable and continuing crushed hands and suffering in the Indian auto-sector factories

1.1 Thousands of workers continue to lose their hands/fingers ("crush injuries") every year in the Indian auto sector.

It all started in December 2014 with a media report[1] : "**Your car has been built on an assembly line of broken fingers**," which reported 20 cases of lost hands and/or fingers in automotive sector factories every day in just one Employee State Insurance Corporation (ESIC) hospital in Gurugram.

The Safe In India initiative (SII) was created to address this problem. Since 2017, SII has found and assisted more than 500 injured workers, every year, through just one Worker Assistance Centre in Manesar, Gurugram. In FY20-21, after adding another Centre at Faridabad, SII expects to find and assist almost a thousand injured workers annually through just these two Centres.

In October 2021, SII explored two other relatively smaller auto-sector hubs of Rudrapur (Uttarakhand) and Neemrana (Rajasthan) and found another 56 injured workers in just two weeks of quick assessment visits.

Clearly, the above numbers are a small subset of the universe of such accidents in Haryana, and nationally. As per Directorate General Factory Advice Service and Labour Institutes (DG FASLI)-published accident numbers, Haryana state contributes less than 2% of national factory accidents and fatalities.

SII, therefore, posits that several thousands of workers are losing their hands/fingers to such accidents in the auto sector hubs every year, causing immense human misery and loss of productivity to the industry and the country.

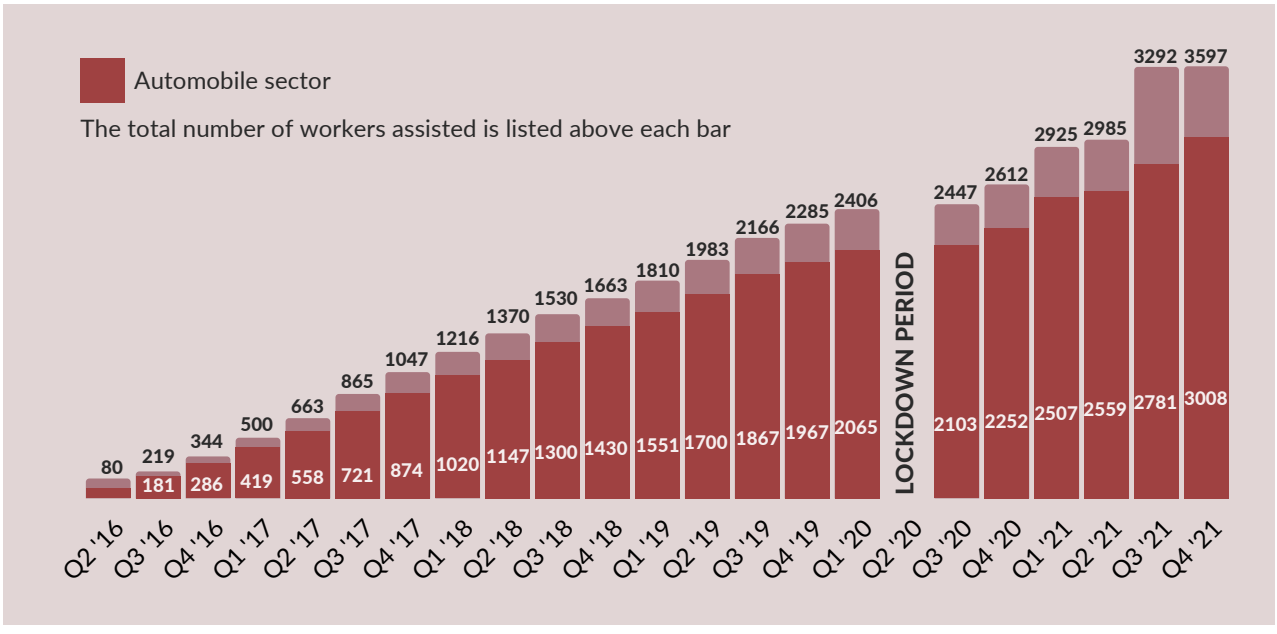
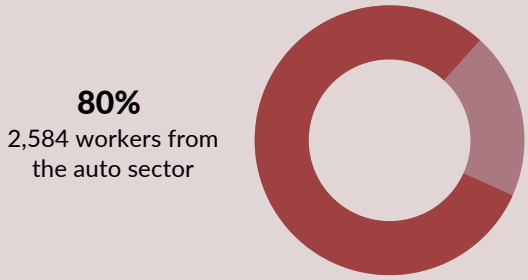


FIGURE 1: Sectoral break-up of injured workers assisted by SII with ESIC healthcare and compensation

1 https://scroll.in/article/692477/your-car-has-been-built-on-an-assembly-line-of-broken-fingers, which quoted an ESIC Gurugram doctor: "We see about 20 cases of crush injuries every day. In most cases, the fingers are auto-amputated, which means they have been lost even before the worker has come to us. In some cases, the entire hand is lost."

1.2 80% of all SII-assisted injured workers are from auto-component factories.

2,584 (80%) out of all the 3,268 injured workers met and assisted by SII over the past five years (despite Covid-related production disruption for c.18 months during this time) work(ed) in the auto sector supply chain.



About 6% of the workers in this chart were injured in road accidents, not in factories. In addition, the number of workers assisted by SII, as reported in the Figure 1, is higher by 197 compared to Figure 2. These additional workers were assisted before November 2016, when SII started capturing worker data for the analysis used in the CRUSHED series of reports. This does not change the analysis, conclusions, or recommendations in this report.

FIGURE 2: A majority of crush injuries happen in the auto-sector factories (2016 - 2021)

As indicated above, the analysis in the following chapters is based on injuries to workers assisted/identified by SII in Gurugram and Faridabad. SII believes this analysis is representative of the whole country.

SII focusses mainly on non-fatal crush injuries and this data, therefore, does not include a variety of other work-related injuries and illnesses (e.g. electrocution, burns, and death). The total auto-sector injuries would, therefore, be a multiple of those reported here.

1.3 The aftermath of these grave injuries

With such disabling crush injuries, these vulnerable workers and their families are further pushed into a series of despairing events - mental and physical trauma of the injury, unemployment, high costs of residing in cities for treatment while many are not paid their salaries and a bureaucratic post-accident compensation process with ESIC, if they are ESIC-registered at all.

They struggle with the powerful employer, often unprofessional contractor (*thekedaar*), and bureaucracy, all of whom often do not empathize and/or support, when the workers need them the most.

In a state of despair, workers and their families run pillar to post for the right health treatment to retain some functioning of their crushed hands, and documentation to access entitlements, while also desperately trying to build a new income-source.

Many return to their villages or settle for lower-paying jobs, sometimes with the same employer, who often promise a permanent job, to keep them quiet until the heat of the issues subsides, but rarely do; the impact on their dependents is catastrophic. These circumstances have been aggravated further by the Covid pandemic in the past two years.

FIGURE 3: Workers share their Covid lockdown experience, when many lost work, wages were reduced, savings were exhausted, loans had to be taken to manage expenses of the elders and kids in the family [2].

Dr Lalit Kumar Singh, ESIC Dispensary, Rudrapur

"In Sidkul (Uttarakhand), annually 100-150 workers get seriously injured. In a week, 3-4 workers coming to ESIC have lost a body part."

***Name withheld*, 47, Waghodiya, Gujarat**

"મશીન બે ત્રણ દિવસથી ખરાબ થઇ ગયું હતું. બોલ્ટ ઢીલો પડી ગયો હતો અને ઘડી ઘડી નીકળી જતો હતો. મેં ડાય સેટરને વાત કરી. એણે કહ્યું કે કંપની નવો સામાન મંગાવતી નથી. જે હોય તેનાથી ચલાવી લો તેમ કહે છે."

The machine had been giving problems for 2-3 days. The bolt had gotten loosened and was coming out. I first reported to the die setter, who said the company was not getting any new parts necessary for repairs and to work with whatever was available."

Uma Kant Dikshit, 23, Sitapur, Uttar Pradesh

"सेफ्टी ऑडिट के 4 दिन पहलेसे ही कम्पनी में सब ठीक हो जाता है। फिर सेफ्टी ऑडिट हो जाने बाद पहले जैसे ही हाल होजाती है। "

"Everything becomes OK four days before a safety audit. After the audit, everything returns to what it was like before."

Ramchandran, Chennai

"சம்பளம் கொடுக்கவில்லை. நான் இது சம்பந்தமாக மூன்று மாதங்கள் தொடர்ந்து அவர்களிடம் கேட்டேன். ஆனல் எந்த பதிலும் கிடைக்கவில்லை. அதன் பிறகு நான் பெட்ரோல் பங்கில் வேளைக்கு செந்தேன்."

"Salary was not given. I had gone back to them and asked about it for 3 months but to no avail. After that I started working in a petrol bunk."

2 Watch the video at www.youtube.com/watch?v=zzEAkC2iF9k&t=4s. Also on SII's YouTube channel.

2

Vulnerable, marginalised, voiceless, and overworked

2.1 A majority of these injured workers are the most marginalised and vulnerable.

A vast majority (92%) of these injured workers are migrants, mostly from Bihar, Uttar Pradesh, and Odisha, with little education and earn very low wages.

70% are contractual employees, with often unclear employer-employee relationships, which makes legal protection inaccessible to many of them.

Sadly, the young, future workforce of the nation (less than 30 years old) suffer most (62%) of these injuries.

71% earn Rs. 10,000 or less for an eight-hour day and most of them work overtime, for which many of them do not get paid double the hourly rate as they should.

Almost none of these workers is part of any labour unions.

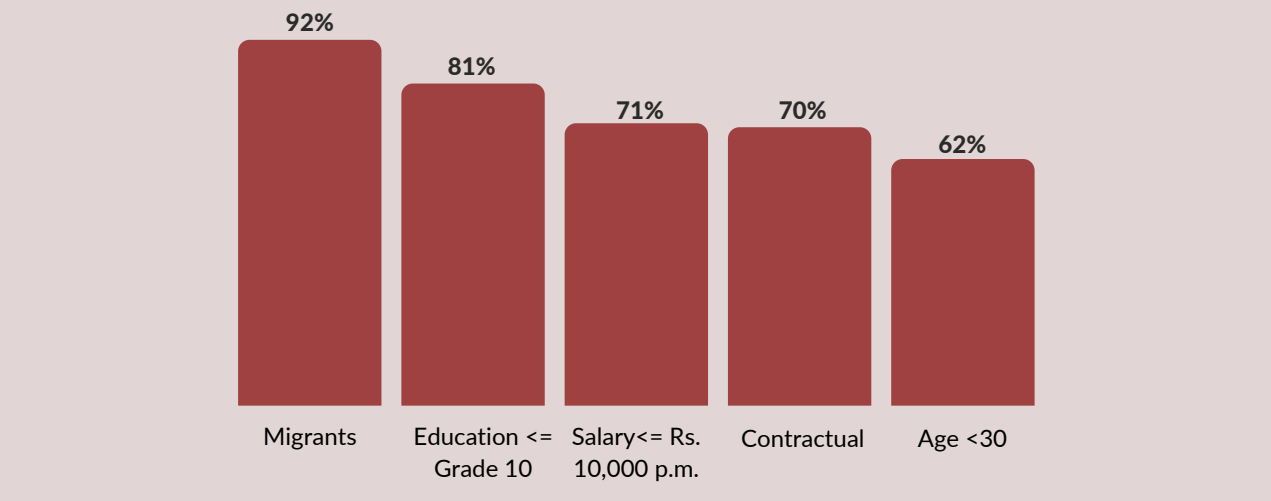


FIGURE 4: Injured workers: migrants, lowly educated and paid, contractual and young (2016 - 2020 data)

2.2 A typical crush injury to fingers results in the loss of almost two (1.97) fingers per injured worker.

60%+ of injured workers lose their hands and/or fingers, at an average of 1.97 on all types of machines. Power press crushes are even higher: 2.04 fingers on an average, with many losing entire hands.

Unfortunately, the proportion of workers with severe injuries (loss of body parts, e.g. fingers/hands and bone fractures) has not reduced in the past five years, indicating continuing underlying dangerous working conditions.

FIGURE 5: Most injured workers on average lose 1.97 fingers on all types of machines.

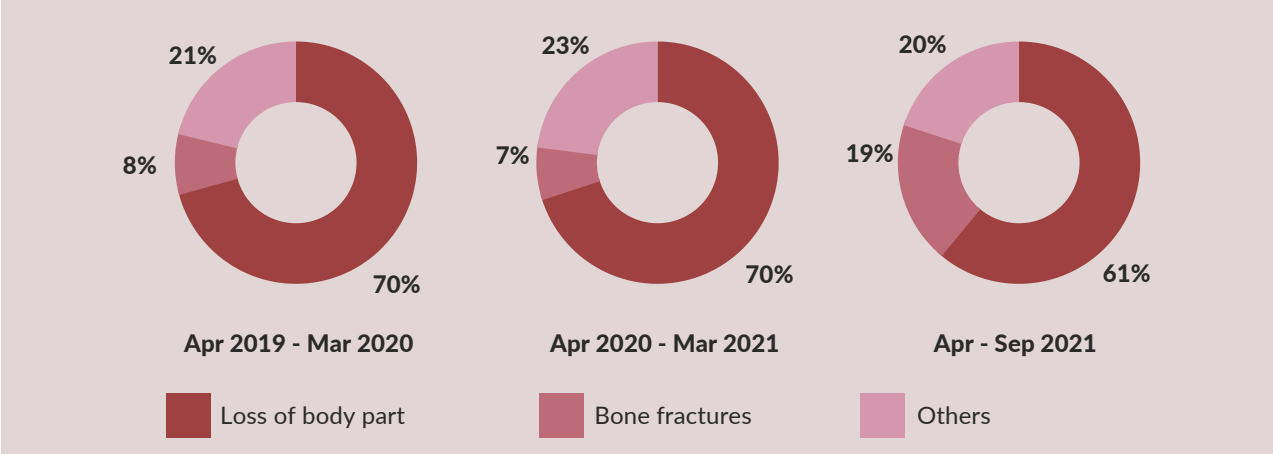


FIGURE 6: Severity of injuries in factory accidents in Gurugram

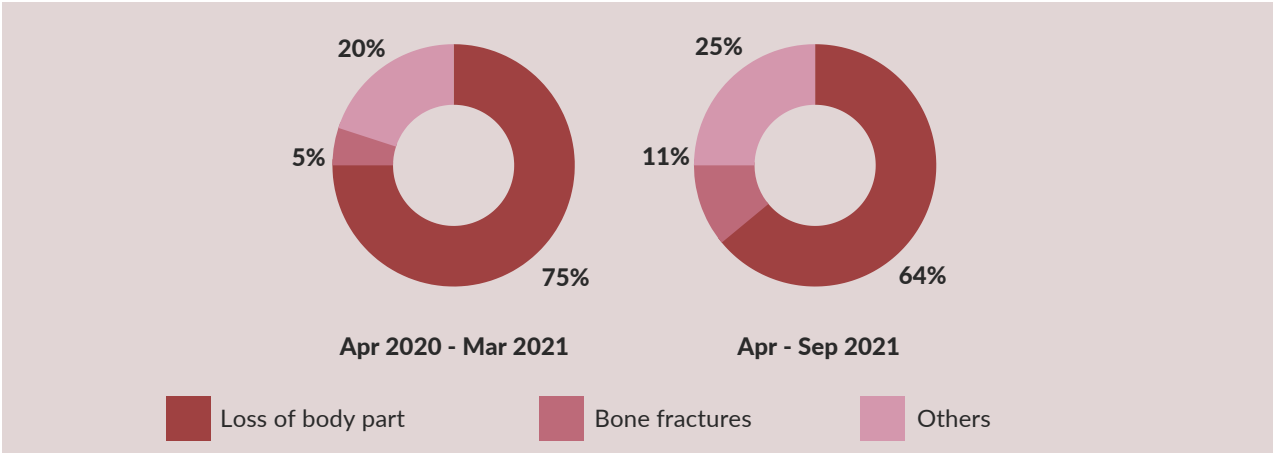


FIGURE 7: Severity of injuries in factory accidents in Faridabad – worse than Gurugram

The April - September 2021 data above may be skewed on account of Covid disruptions, when many contract workers were fired and many factories may be left with relatively more experienced/permanent workers. The factories may also have been operating their relatively better machines.

2.3 70% of injured workers get their ESIC "e-Pehchaan" Card only after the accident (not on the day of joining the job, as they should).

The ESIC e-Pehchaan (identity) Card enables the workers, and their eligible dependents, to access primary, secondary and tertiary health services, and compensation in case of sickness, injuries, unemployment, childbirth and death.

However, a large majority of injured workers had not received their ESIC e-Pehchaan Card on the day of joining their jobs, as the ESIC regulations require. Interestingly, all these injured workers did receive their Card a few days after the accident. Clearly, they were not benefitting from ESIC services they were eligible for, for several months/years, despite paying their ESIC contribution.

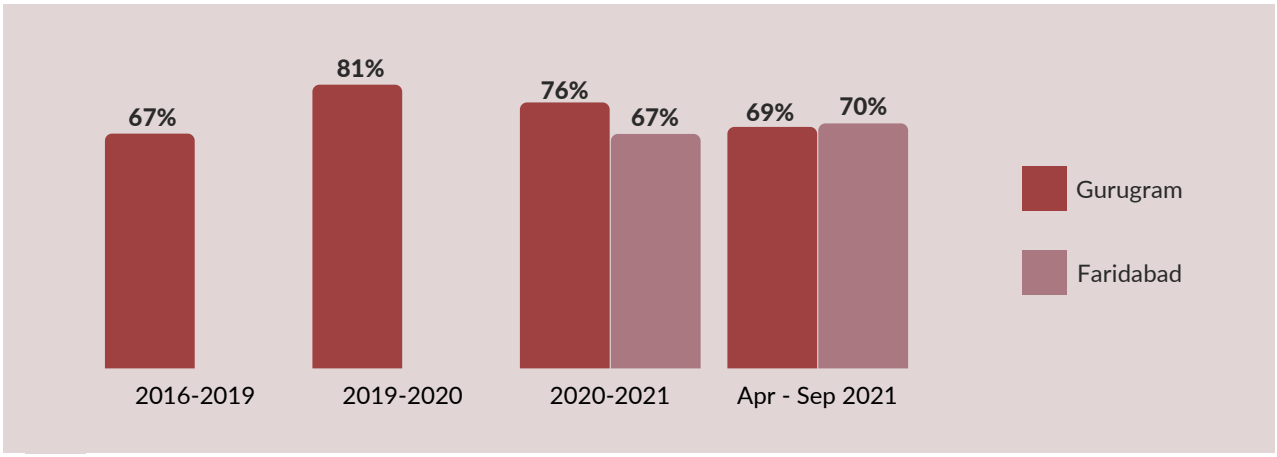


FIGURE 8: ESIC e-Pehchaan card given to workers only after the injury - equally bad in Gurugram and Faridabad

SII is aware of many instances where the ESIC premium deducted from workers' compensation is not even deposited with ESIC; such workers are, therefore, not registered with ESIC. Possibly as a result of this, more than half of these workers, when gravely injured, are first taken to a private hospital, while ESIC paperwork is "completed" and then taken to ESIC hospitals mostly after one to three days of injury.

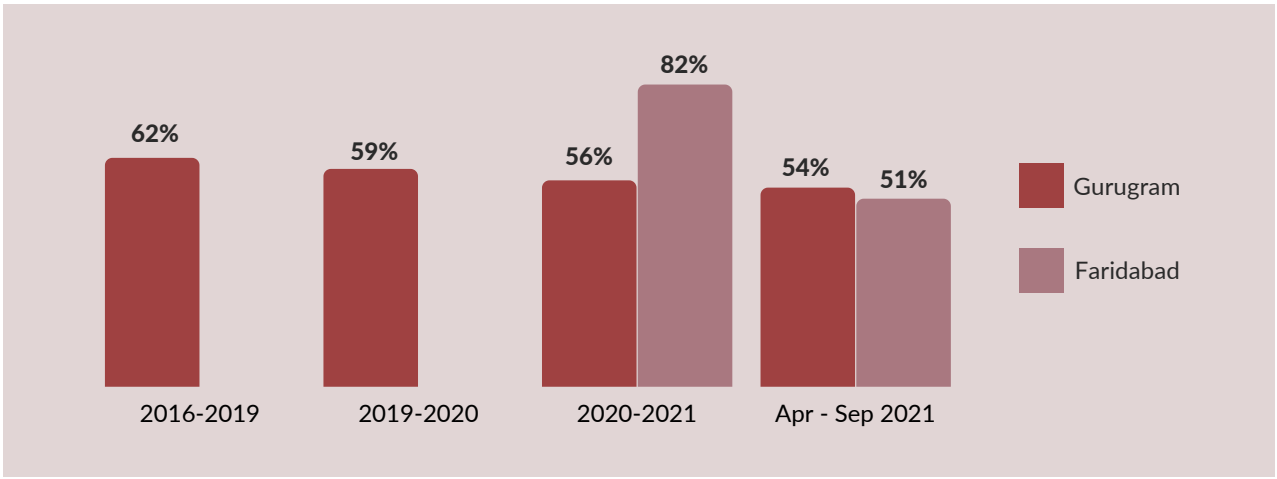


FIGURE 9: Proportion of injured workers first taken to a private hospital, rather than ESIC

Although, in some cases, there may be a good reason to take injured workers to a nearby private hospital, this does not appear to be true for a large percentage of workers, especially as finally all these workers were being treated in relatively better equipped Gurugram, Manesar, and Faridabad ESIC Medical College Hospitals.

ESIC is aware of this issue and terms it as "Post Accident Registration". SII has been seeking punitive actions again such defaulting factories from ESIC, since current penalties are small and ineffective. SII has recently been advised that policy changes are being initiated to address this.

2.4 The lower the salary and education – the worse the injury!

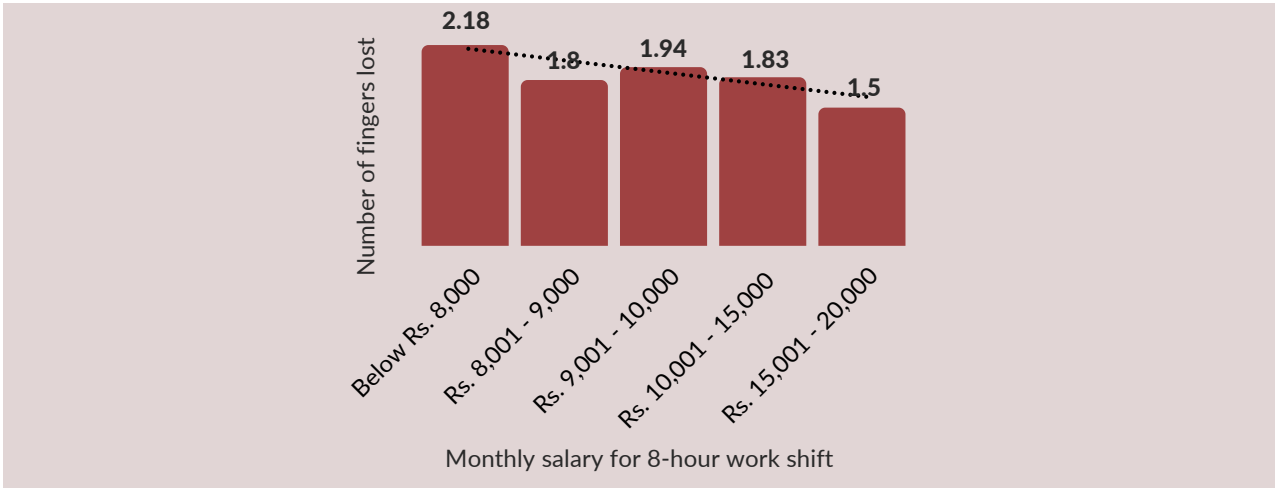


FIGURE 10: Number of fingers lost vs. monthly salary

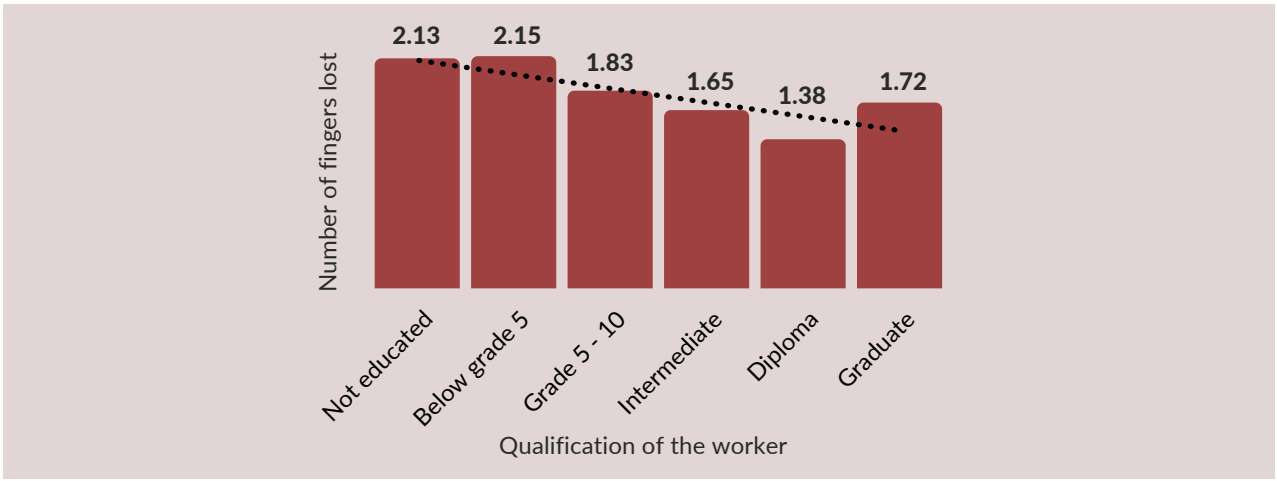


FIGURE 11: Number of fingers lost vs. qualification

It is evident that the lower the income of a worker, the higher the severity of the injuries:

- Workers earning less than Rs. 8,000 for an 8-hour workday lost an average of 2.18 fingers, much more than an average of 1.50 fingers lost by those earning more than Rs. 15,000 p.m.
- Note that a salary of Rs. 8,000 p.m. is also below minimum wages for the skilled job they were asked to do.
- Workers with a diploma lost an average of 1.38 fingers, whereas their lower-educated colleagues, say those educated less than grade 5, lost an average of 2.15 fingers.

These statistics also reflect SII's experience that many lowly paid and lower educated "helpers" are asked to operate power press and other machines, without adequate training, experience, or upgrade in their compensation to skilled worker wages.

2.5 About half of the injured workers reported shift timings more than 12 hours, and were often not paid for overtime at the legal rates, in violation of the Factories Act.

Although shift-timings are not defined under law, it can reasonably be expected that certain local norms about regularity in shift timings for workers will provide a balanced personal life that saves them from excessive fatigue caused by highly irregular shifts.

Industrial Safety and Health (ISH) Gurugram advises the following normal shift timings used by most companies in Haryana, which must also be displayed in the factories.

- General shift: 9:30am to 5:30pm
- Three shift timings: 6am to 2pm, 2pm to 10pm, and 10pm to 6am

However, almost half (47%) of the injured workers SII interviewed advised that they worked in shifts of 12 hours or longer, with the average duration for all injured workers at 10.8 hours.

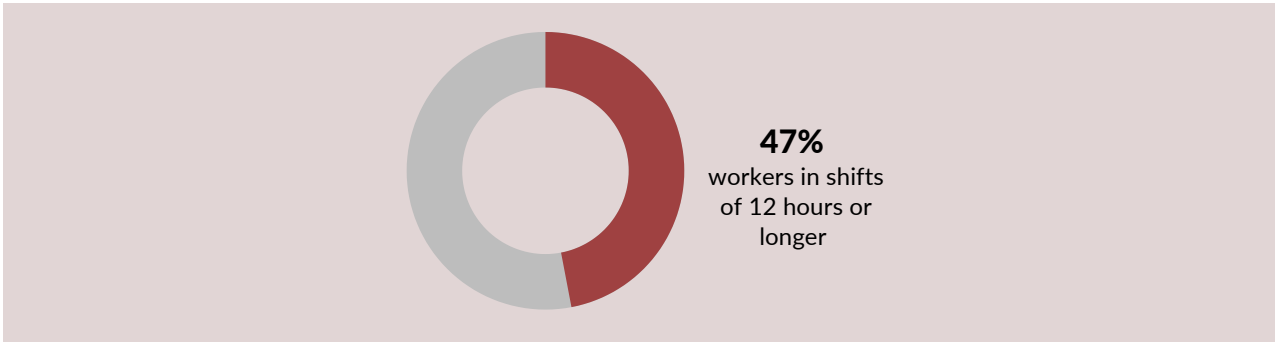


FIGURE 12: Almost half of the injured workers worked in shifts of 12 hours or longer

The Indian Factories Act 1948 allows overtime and the soon-to-be-enacted Occupational Safety & Health and Working Conditions (OSH & WC) Labour Code has increased the "spreadover" from 10.5 to 12 hours. However, the Code has retained that the total number of hours are not allowed to exceed 48 hours per week.

Any work beyond 8 hours per day or 48 hours per week is required to be paid overtime at double the regular rate. However, SII has often been advised by injured workers that they are not paid the required double rate.

Although it is difficult to establish a causal relationship between excessive overtime and injuries, it is reasonable to assume that these would be contributory factors to fatigue-caused accidents (14% of these injured workers said they were on overtime at the time of these accidents). Any solution, therefore, must address this issue too.

3

The Indian auto sector's power and responsibility to improve worker safety and labour productivity in Indian manufacturing

As stated in Section 1.2, a majority (80%) of injured workers that SII assisted SII work(ed) in the auto-sector supply chain. This proportion has remained broadly unchanged for five years. This chapter, and indeed SII's focus, is therefore on understanding the role and responsibility of the Indian auto sector and its original equipment manufacturers (OEMs) to address this critical issue.

3.1 The Indian auto sector is critical to not only the Indian economy and manufacturing, now and in the future, but also to the lives, working conditions, and productivity of millions of Indian workers.

The economic contribution of the Indian auto sector is a large 7.1% of the national gross domestic product (GDP), with the latest Automotive Mission Plan 2016-26 envisioning to increase it to 12%.

It is also almost half (49%) of the Indian manufacturing GDP and, therefore, its quality and professionalism has an incomparable halo effect on the entire manufacturing sector.

The sector is, therefore, one of the largest employers in the private sector: It employs more than 37m workers, directly and indirectly, of which 8m are employed directly, and the rest by backward and forward linkages. This number is projected to increase to 100m by 2026 [3].

As a result of the above, all states value the auto-sector manufacturing business. In India, main auto-sector hubs exist in Haryana, Maharashtra, Tamil Nadu, and Karnataka. It is probably not a mere coincidence that these four also happen to be among the richest states in India [4].

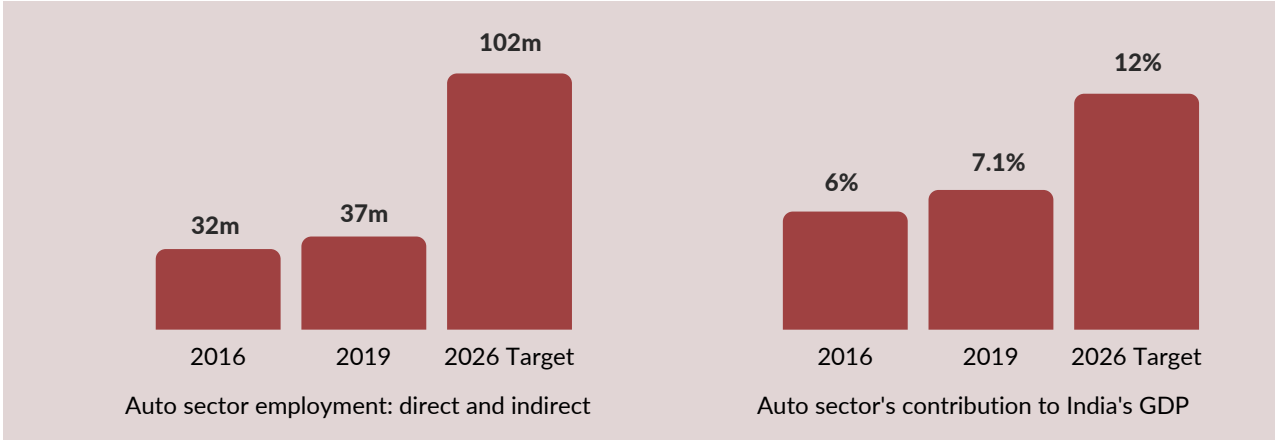


FIGURE 13: Auto-sector manufacturing is important to the country and its people

Society of Indian Auto Manufacturers (SIAM) [5]

"India is the largest 2-wheeler and 3-wheeler producer, 2nd largest heavy bus producer, 4th largest heavy truck producer, 4th largest car producers and 7th largest light commercial vehicle producer in the world."

3 Ministry of Heavy Industries and Public Enterprises (Annual Reports 2019-20 and 2020-21), SIAM Annual Reports (2019-20 and 2016-17)
4 MOSPI, NITI Ayog report on National Multidimensional Poverty Index Baseline Report based on NFHS-4 (2015-16)
5 SIAM Annual Report (2019 - 20)

Clearly, the large auto-sector players have the power, the scale, and the expertise to drive the solution to this issue for themselves and for the country. It is, therefore, not without reason that in a survey conducted in October 2020 by SII, 87% of 130 individual consumers felt that it is the auto-sector brands who are primarily responsible to correct this situation.

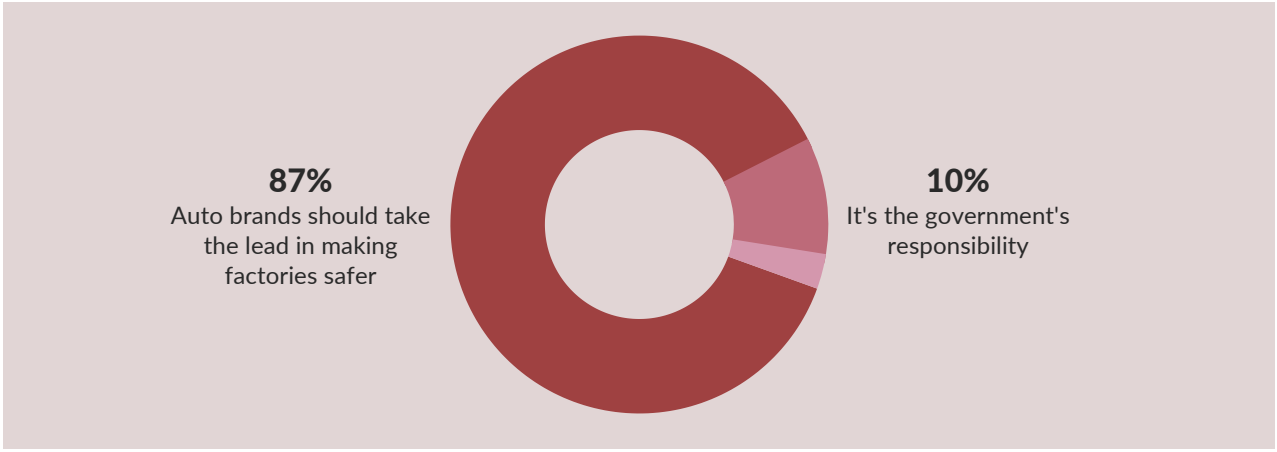


FIGURE 14: Who has the higher responsibility to reduce these crush injuries? Auto-sector brands or the government?

3.2 Crush injuries in the auto sector continue in the thousands - nationally.

As stated in Chapter 1, SII has found and assisted 2,584 auto sector injuries over the past five years (despite Covid-related disruptions for c.18 months in this period) just in Gurugram and Faridabad. In the last quarter of October - December 2021, SII has been finding 70-80 auto-sector injured workers every month i.e. close to a rate of 1,000 p.a.

The above numbers are a small subset of the universe of such accidents in Haryana and nationally. (As per DG FASLI-published accident numbers, Haryana state contributes less than 2% of national factory accidents and fatalities.)

SII, therefore, believes that it is reasonable to assume that several thousand workers are losing their hands/fingers to such accidents in the auto-sector hubs across the country, every year, causing immense human misery and loss of productivity to the industry and the country.


THE WIRE

Despite Injuries To Thousands of Workers, the Auto Sector's Safety Standards Remain Poor

A report finds rising incidence of accidents in Gurugram and Faridabad, but the contractual workers do not have access to benefits available under India's labour laws.

FIGURE 15: A news report on the prevalence of worker injuries in the auto sector[6]

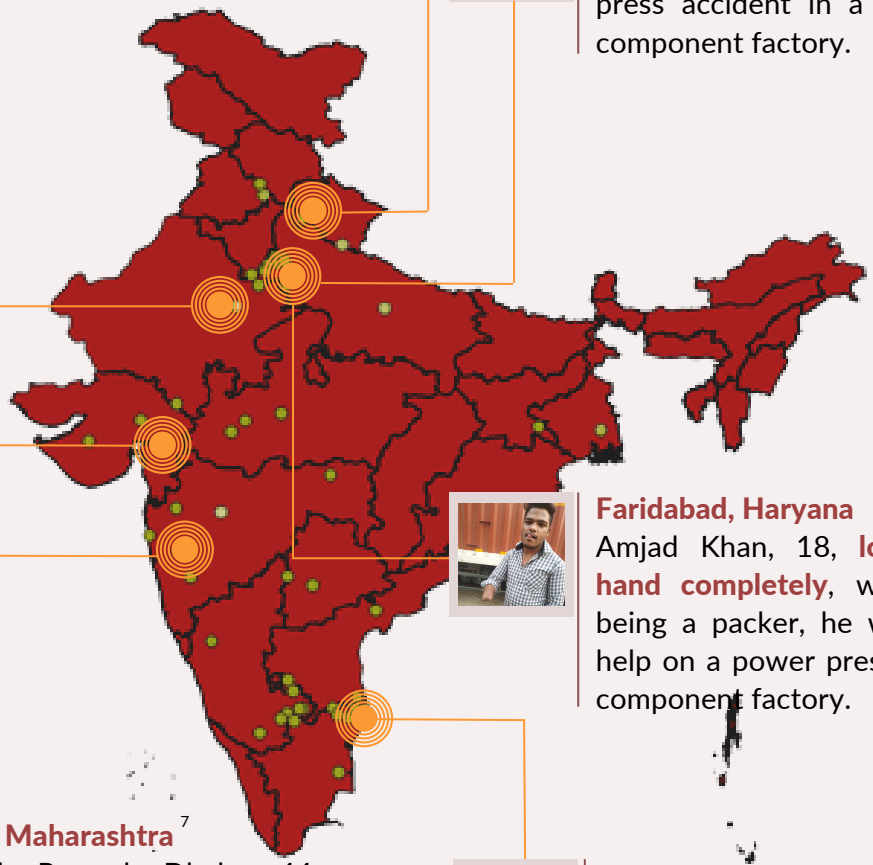
6 https://thewire.in/rights/despite-injuries-to-thousands-of-workers-the-auto-sectors-safety-standards-remain-poor

Neemrana, Rajasthan
Lokendra Singh, 39, from Hamirpur UP, **lost two fingers** while working on a grinder machine in an auto-component factory.

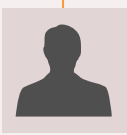
Waghodiya, Gujarat
Name withheld, 47, **lost three fingers** despite informing problems in the machine to the supervisor and die-setter on 1st August in a Tier 2 auto-component factory.

Rudrapur, Uttarkhand
Raju Sharma, 32, **lost four fingers** while working on a power press, as a helper, in a leading OEM factory. He had been working in the auto industry since 2012.

Gurugram, Haryana
Mangesh Mishra, 24, from Balia, UP **lost four fingers** in a power press accident in a Tier 1 auto-component factory.



Faridabad, Haryana
Amjad Khan, 18, **lost his right hand completely**, when, despite being a packer, he was asked to help on a power press in an auto-component factory.



Pune, Maharashtra[7]
Umesh Ramesh Dhake, 44, **sustained critical injuries on his head and neck and died** after a robotic unit fell on him due to a possible snag in a sensor in an auto-component factory.

Chennai, Tamil Nadu[8]
Vinoth Raj, 35, a junior engineer, **died of injuries** in a fatal accident at a leading OEM factory in Sriperumbudur on 6 April, 2021.

This map is for graphical purposes only and does not represent a legal survey. The boundaries and other information shown on this map do not imply any judgment on the part of SII concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

FIGURE 16: Auto-sector worker injuries/death is a national issue, affecting thousands of workers a year

7 https://indianexpress.com/article/cities/pune/injured-critically-in-accident-involving-industrial-robot-factory-employee-dies-7204970/
8 https://tnlabour.in/automobile-industry/11199

3.3 Although accidents in Gurugram appear to have recently reduced (potentially due to disruption in production during Covid), the situation in Faridabad appears to be worse than Gurugram.

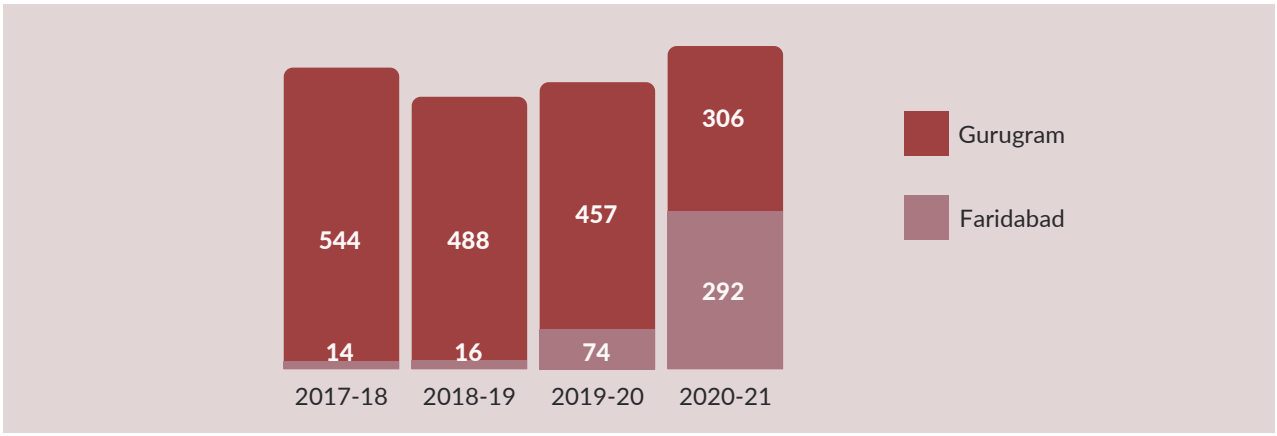


FIGURE 17: Total number of accidents reported to SII continues to increase

The five-year trend of these injuries continues to be worrying. Adjusting for best estimate of Covid-related disruptions and accounting for accidents that will be reported in future, the number of injuries in Gurugram shows a small dip in FY20-21. However, this trend in Gurugram is not yet robust and clarity will emerge only in FY21-22/22-23, when the impact of Covid becomes clearer.

Faridabad (where SII operations are recent), on the other hand, shows a steep rise in accidents in factories that supply mainly to the same OEMs, like in Gurugram.

3.4 Rudrapur (Uttarakhand) and Neemrana (Rajasthan), two relatively smaller auto-sector hubs, too, have high incidence of injuries in their auto-component factories.

In October - November 2021, the SII team, for the first time, spent just seven days in Rudrapur and found 40 injured workers from several auto-component factories:

- A majority (70%) had lost their fingers/hands.
- Everyone said that there were many more injured workers in their factories.
- A majority (67%) knew of injured workers in other nearby factories too.

In October 2021, the SII team, again for the first time, spent a week in Neemrana and found 14 injured workers from the auto sector (only two others from a non-auto sector):

- Half (50%) said there were many more injured workers in their factories.
- Three of them mentioned very large number of accidents (2-3, 3-4, and 7-8 respectively) every month in their factory.

This is a significant number of accidents for these small auto-sector hubs and shows this problem to be sector-wide. Therefore, it is likely that a substantial number of crush injuries also occur in the largest auto-sector hubs of Maharashtra, Tamil Nadu, and Karnataka.

3.5 Top 3 responsible OEMs: In Gurugram and Faridabad, suppliers to Maruti-Suzuki, Hero, and Honda continue to be the largest contributors to these accidents.

93% of the injured workers in Gurugram and 75% of the injured workers in Faridabad were employed by suppliers of either Maruti-Suzuki, Hero, Honda or a combination of them (between April 2020 and September 2021).

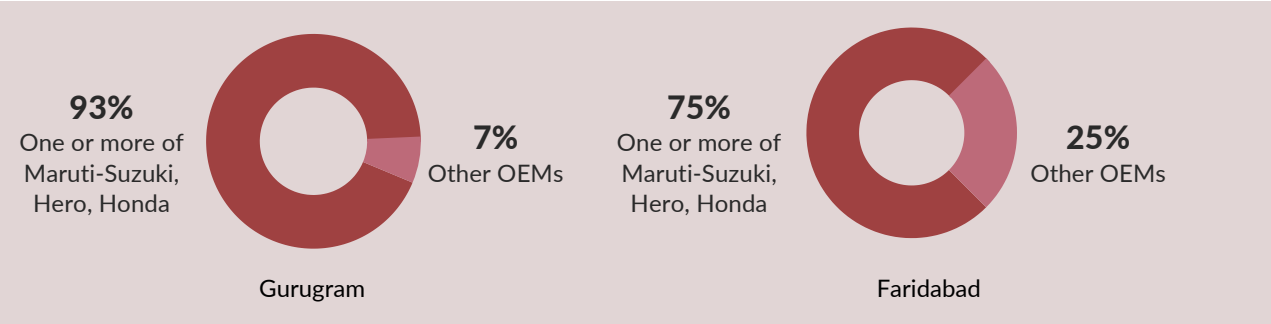


FIGURE 18: Top 3 responsible OEMs (Maruti-Suzuki, Hero, and Honda) in Gurugram-Faridabad

Even individually, each of these three OEMs' (Maruti-Suzuki, Hero, and Honda) suppliers are the largest sources of these crush injuries.

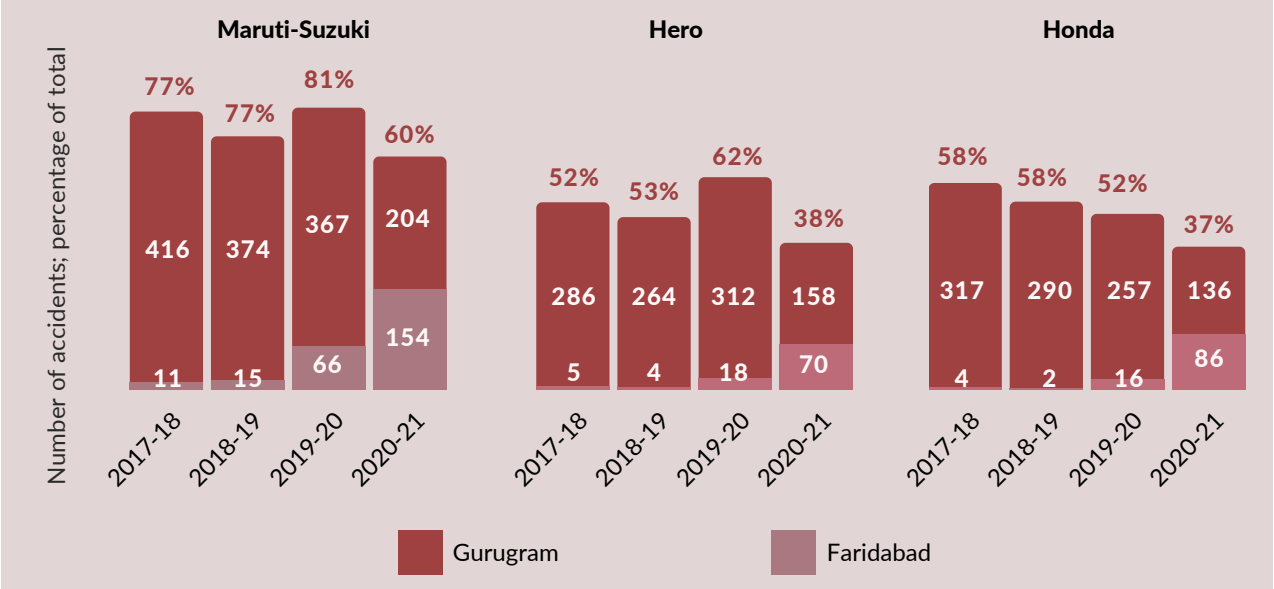


FIGURE 19: Number of accidents in supplier factories to Maruti-Suzuki, Hero, and Honda (Gurugram and Faridabad)


THE TIMES OF INDIA

How many lost hands behind new cars? Survey shows a grim picture

FIGURE 20: A news report highlighting how prevalent worker injuries are in India's auto sector [9]

9 https://timesofindia.indiatimes.com/city/gurgaon/how-many-lost-hands-behind-new-cars-survey-shows-a-grim-picture/articleshow/78305976.cms

3.6 Other than the above top 3 responsible OEMs, JCB, Tata Motors, Yamaha, Eicher, TVS, and Bajaj are also significant contributors to accidents in Gurugram, Faridabad, Rudrapur, and Neemrana.

As reported in CRUSHED 2020, 19% of the injured workers in Gurugram were manufacturing parts for other OEMs – mainly Tata Motors, TVS, Bajaj, and Eicher. This proportion has now increased to 24%.

In Faridabad, too, this proportion increased from 39% (December 2020 - March 2021) to 55% (April - September 2021) with a slightly different mix of these other OEMs – mainly JCB, Yamaha, Escorts, and Eicher.

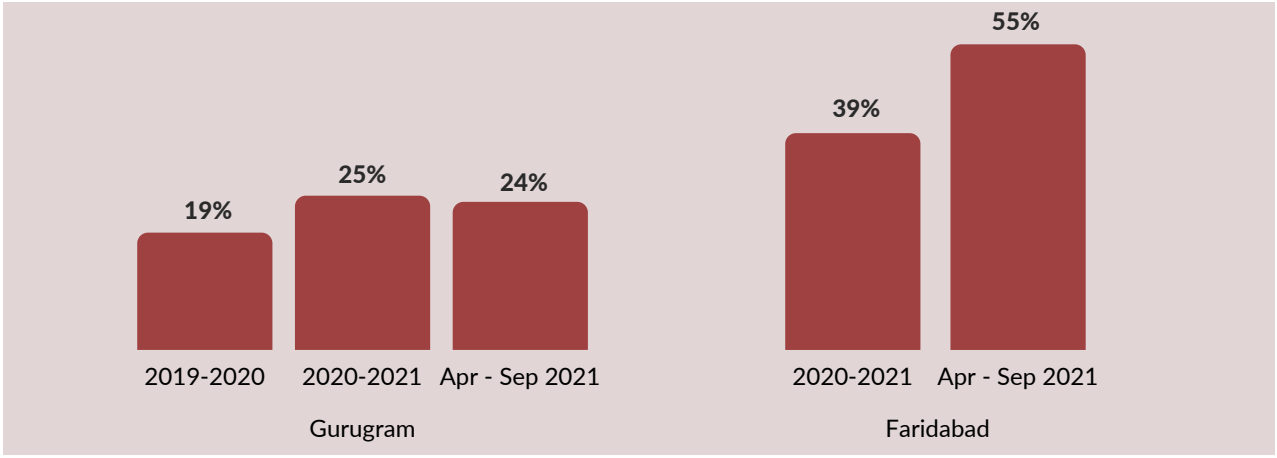


FIGURE 21: Percentage of injuries in the suppliers of OEMs other than the top 3 (i.e. JCB, Tata Motors, Yamaha, Eicher, TVS, Bajaj etc.)

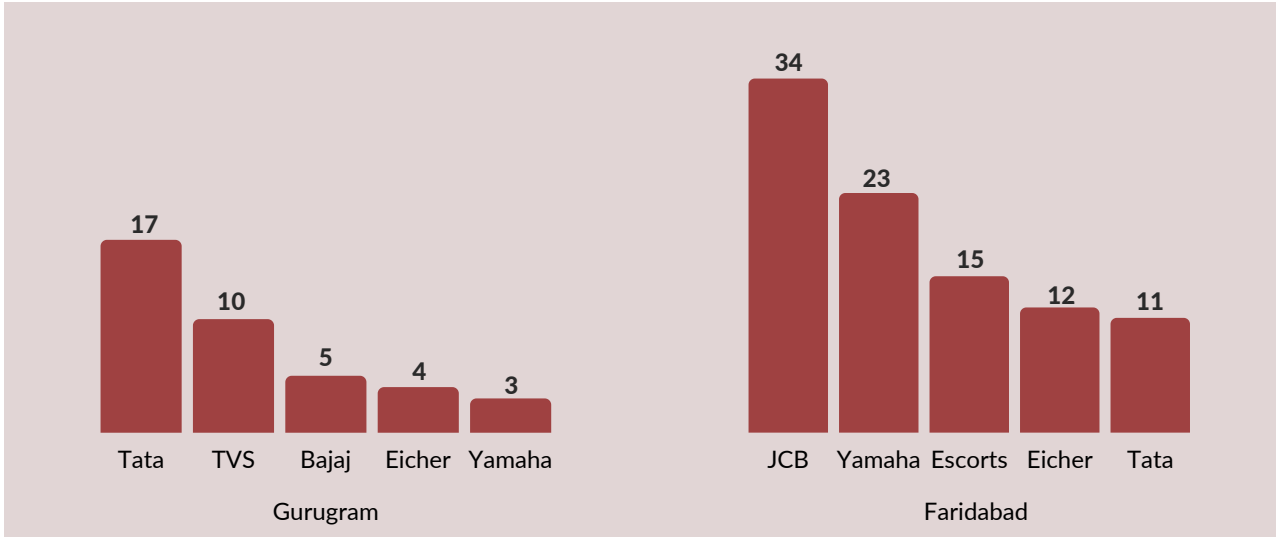


FIGURE 22: Accidents in the supply chain of JCB, Tata Motors, Yamaha, Eicher, TVS, and Bajaj during April 2020 - Sep 2021

In Rudrapur and Neemrana, 71% of injures workers advised the names of their buyer OEMs as Ashok Leyland, Bajaj, Hero, Honda, Mahindra & Mahindra, Maruti-Suzuki, and Tata Motors.

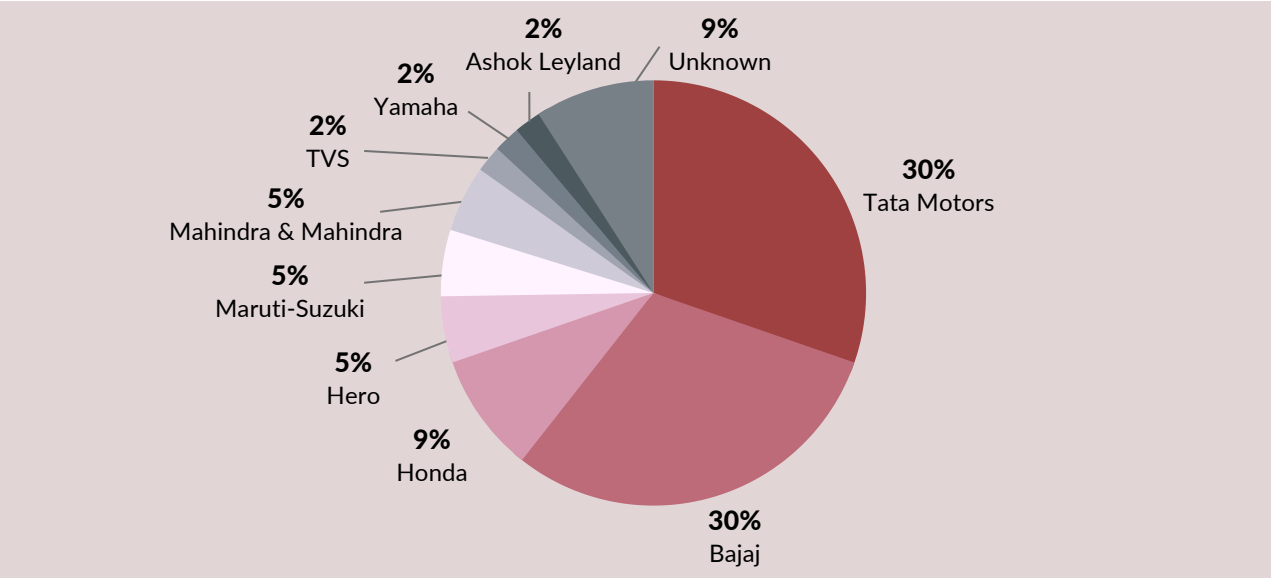


FIGURE 23: OEMs whose supplier factories had worker injuries in Rudrapur and Neemrana

3.7 ACMA members (some of the largest factories/suppliers) continue to have 22% of all accidents in Gurugram; it is not just a small factory problem.

In Gurugram, 22% of the factories where accidents took place in the latest reporting period are Automotive Component Manufacturers Association of India (ACMA) members. This is the same as reported last year.

In Faridabad, 6% of the factories are of ACMA members; however, given SII's relatively new operation in Faridabad, this number is not yet robust.

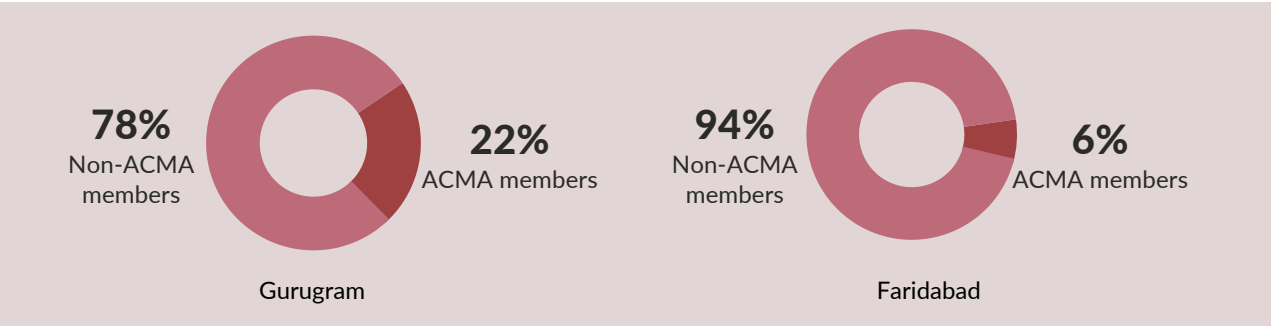


FIGURE 24: Proportion of worker injuries in ACMA-member factories

Disappointingly, the fact that many of these large factories supply components directly to auto-sector brands and, therefore the brands have the most influence on them, should have meant a significant reduction in this proportion since CRUSHED 2019.

Sidkul, Uttarkhand

A daily battle for survival

“No worker in any factory in Sidkul is safe," says Laxman Rathore as he looks at his hand, injured in a recent factory accident to which he lost three fingers.

Laxman is speaking of Sidkul in Uttarakhand, which is an auto hub that houses over 200 manufacturing units for automobile parts.

24-year-old Laxman, who hails from Badaun, Uttar Pradesh, dropped out of school after grade nine due to his family's strained circumstances. He moved to Sidkul and, like many migrant labourers on temporary employment, went through several jobs and landed at PDPL, an auto-brand subsidiary, where he met with the accident.

Laxman’s account of the accident shows how callous factory management is toward workers. Laxman says that when he was injured by the press machine, he was left bleeding on the floor for an hour. Despite having an ambulance at hand, the management did not use it to send him to a hospital. It was his fellow workers who took him to the Metro hospital on a motorbike after noticing he was unconscious. Even at the hospital, he was not treated for about an hour though he was losing blood.

This was not his first accident: In 2018, just after he had begun working, he lost a finger due to a short circuit in the machine. What adds to the trauma caused by these accidents, Laxman says, is that workers typically are not adequately compensated for their work. “I earn Rs. 10,200/- after years of work experience. When the orders are low, my pay is reduced, and I get just six-seven thousand per month. It is difficult to survive with a family on this amount.”

Laxman married two years ago and has a one-year-old daughter. He often wonders how he will survive as he has lost four of his fingers. This is a question that is all too familiar to workers in the Indian auto sector, who are never sure that they will survive the working day unscathed.

4

Under-reporting of injuries, reduced factory inspections by the government, and the implications of the new Labour Codes on these accidents

4.1 Worker accidents have been under-reported for decades: Haryana state-reported accident numbers are not even 5% of reality.

In 2019, the last year of data publicly available, DG FASLI (Standard Reference Note 2020) reported 5,054 injuries, of which 1127 are fatal injuries. In the same period, Haryana reported 73 accidents, less than 2% of the national accident data.

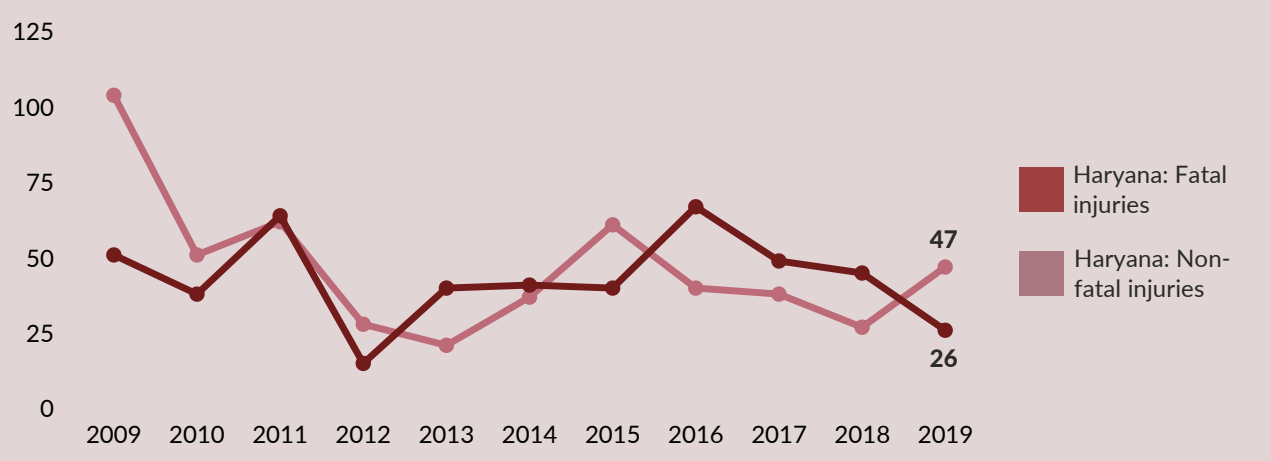


FIGURE 25: Number of injuries reported on the government information portals

The above graph shows Haryana reporting c.50 injuries annually in the whole state for the past several years. However, as stated earlier, since 2017, just SII has been finding c.500 injured workers every year, just in Gurugram. In fact, in FY21-22, SII expects to report c.1000 injuries from only Gurugram and Faridabad - 20 times the number of non-fatal accidents reported for the whole of Haryana.

> The Factories Act 1948 requires all factories that use electricity and employs more than 10 workers to be registered under the Act (this criterion will increase to 20 workers, once the new OSH & WC code is implemented, thereby diluting the effectiveness of the Factories Act further on smaller factories). Such registered factories are required to send a notice of any accident, if the resulting injury prevents the injured person from working for more than 48 hours, to the State ISH.

It is also not the case that SII-assisted workers were employed in factories smaller than 10 workers, and which do not need to report their accidents to ISH. The average headcount in these factories is c.300 (as advised by the injured workers). Also, as all these injuries occurred in ESIC-registered factories, they must have 10 or more workers as required for ESIC registration.

The above data, therefore, indicates that all these factories should have been registered under the Factories Act and all these accidents/injuries should have reported to, and these factories be inspected by the ISH. Clearly, that is not the case.

Unless the Government of India improves the reporting of true information on these accidents and injuries, transparency and accountability of its relevant departments and agencies, any regional/national efforts to prevent these injuries, and improve Indian manufacturing, will not be as effective as they can and should be.

4.2 Haryana state's factory inspections have been reducing for years (though marginal improvement seen in 2018/19).

Audits/Inspections by ISH are critical to improve safe working environment in factories. However, these inspections have been reducing consistently.

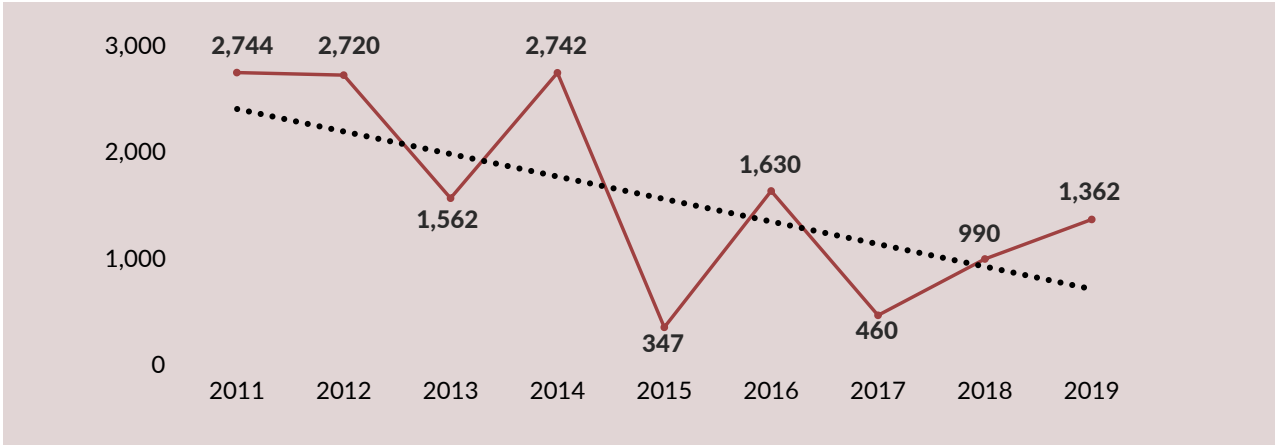


FIGURE 26: Number of ISH factory inspections

The trend shown above is supported by experience of injured workers assisted by SII:

- When asked, none of them reported to have seen a government inspection in their factories.
- 44% had witnessed inspections by their own factory staff and/or by OEMs'/buyers' representatives. However, it is well understood in the industry, that these buyer inspections are mainly focussed on product-quality and supply, and not on worker safety.

4.3 Anecdotal feedback shared by workers also demonstrate the ineffectiveness of factory audits

Vijay Kumar Singh, 40, Gaya, Bihar

"[कम्पनी] वाले आते है ऑफिस में बैठ कर चले जाते हैं |"

"They come from *[OEM name withheld]*, sit in the office and leave."

***Worker's name withheld*, Chennai**

"When there are fatal accidents, the government departments do conduct inspections. But nothing major comes out of that. For accidents involving injuries, inspections are usually not conducted."

Satish, 41, Bulandshahar, Uttar Pradesh

"चाय पानी पीकर चले जाते है , कम्पनी वाले पैसे देकर ऑडिट वालो को सेट कर देते है , वो घूस खाकर चले जाते है |"

"They have tea and leave. Companies pay off these auditors and they take the cash and leave."

Uma Kant Dikshit, 23 Sitapur, Uttar Pradesh

"सेफ्टी ऑडिट के 4 दिन पहलेसे ही कम्पनी में सब ठीक हो जाता है। फिर सेफ्टी ऑडिट हो जाने बाद पहले जैसे ही हाल होजाती है।"

"Everything becomes ok four days before the safety audit. After the audit, everything returns to what it was like before."

Ramashankar, 43, Gazipur, Uttar Pradesh

"वाले आये तो कम्पनी वाले हाईवे पर काम कर रहे वर्करों का हेलमेट लेकर आगये और कम्पनी के वर्कर को पहना दिया |"

"When *[OEM name withheld]* auditors came, our company quickly got a few helmets from workers who were working on a nearby highway and made us wear them."

FIGURE 27: Injured workers share their experience and views on audit in their factories[10]

It is important to note that The Haryana Transparent Inspection Policy mandates ISH inspections once every 5 years even in “non-hazardous factories” and exempts only “low-risk factories”. However, SII could not find any definition of “low-risk factories” or data on such exempted factories in the public domain or through ISH-Gurugram.

Given the numerous injuries in these factories and their much-used power presses, classified as “dangerous” machines under the Punjab Factory Rules 1952, there appears to be no reason to exempt them from at least the five-yearly inspections.

10 Watch the video at www.youtube.com/watch?v=sctv5fO1BMI. Also on SII's YouTube channel.

SII has been recommending, since 2019, prioritising of inspections for factories which can be identified easily as "habitual offenders" by ESIC, from their robust and rich data on sickness and injuries. This data can be used in the 'black-box' that generates random factory inspection list for ISH to make it more 'risk-based', which would be better in many way including being more business-friendly as ISH will then inspect unsafe factories more than relatively safer factories.

4.4 The penalties for Factories Act infractions are rarely imposed and are in any case insignificant to change factory owners' behaviours.

Public data for Haryana is available only for violations of The Factories Act, 1948, and only until 2019 in the DG FASLI Standard Reference Notes.

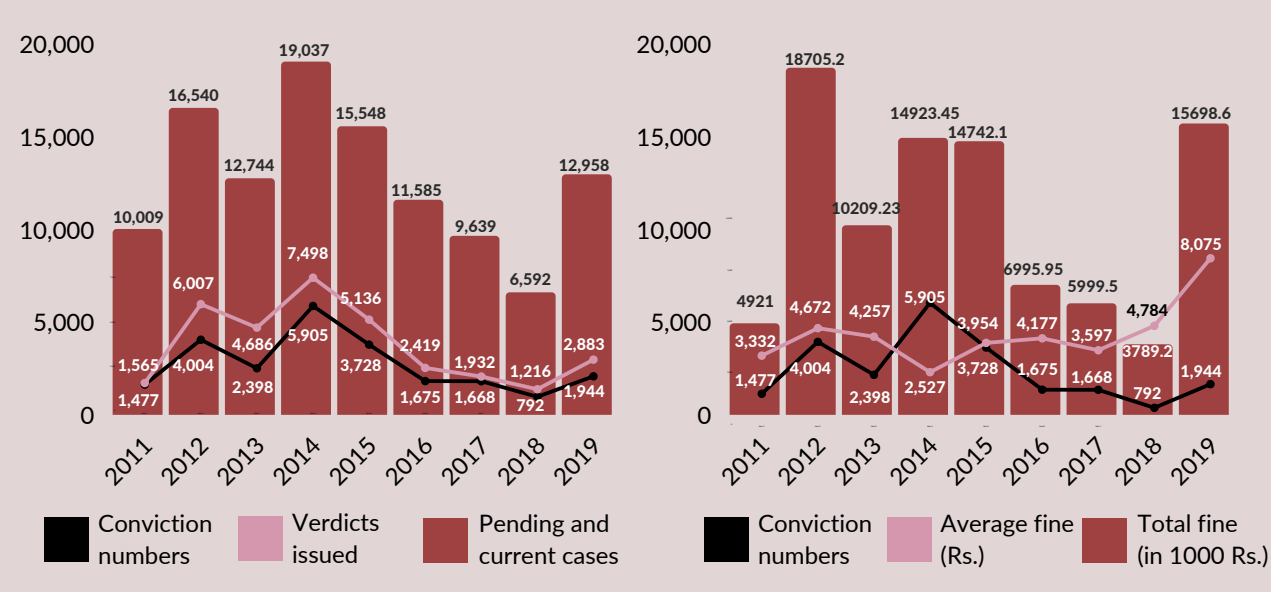


FIGURE 28: Prosecutions and convictions in Haryana under Section 92 and 96A

- The proportion of verdicts continued to be low (around 22%) in 2019, despite a steep rise in the number of cases (highest in 4 years). This indicates tardy corrective action and therefore inadequate pressure on errant factories to improve.
- Of the verdicts, a very large proportion (around 69%) were convictions, probably indicating high incidence of violations.
- The average fine imposed per conviction increased marginally in 2019 to Rs 8075, which, however, is still too small to serve as an effective deterrent.
- There is no data on imprisonment as a result of these violations since 2016.

4.5 The new OSH & WC labour code may make factory safety worse[11]

The new Code is an act of consolidation and amendment of existing regulations concerning OSH & WC. It is not only a missed opportunity for not seeking to promote and widen safety and health across the sectors, but in fact, dilutes the current regulations in a number of areas.

This report does not purport to cover this issue in its completeness given the vast nature of the subject. However, the following observations point to the risk that working conditions may worsen, unless the state governments create better Rules under the new Code and improve implementation of occupational safety and health (OSH) on the ground, especially in micro, small and medium enterprises (MSMEs):

1. Coverage has been reduced. The threshold for registering factories has been increased to exclude factories employing less than 20 workers with power (previously 10), and 40 without power (previously 20). In addition, the regulations relating to contract workers now apply to principal employers and contractors employing 50 or more workers (previously 20). The Code, therefore, not only narrows down the legal provisions, but may also cause confusion due to its multiple thresholds and under-regulate lakhs of MSMEs/smaller establishments in the country.

2. The Code has unclear definitions for employees and workers. At many places in the Code and in the Rules, only "employee(s)" is mentioned. There is a need to add in the Rules that the term "employee(s)" includes "worker(s)" (as verbally advised by Labour Ministry officials to SII).

3. The definition/use of "Principal Employer" has been diluted. At many places now, only the term "employer" is used. This may leave out the contractors (*thekedaar*), who are employers and suppliers for of many contract workers. These *thekedaars* do not have control over working conditions inside the factory. It is important, therefore, that the Principal Employer, as defined in the Factories Act 1948, are made responsible for safety of all categories of workers in a factory.

4. As stated earlier in this report, the database on OSH in India is rather weak, exclusionary and partial (high non-compliance). The Code does not have a definition or a description (in a Schedule) of what constitutes OSH (eg. various International Labour Organization [ILO] Conventions including C.190) or the OSH/accident-related submission needed from an employer. The requirement of an OSH-statement under the section 7A(3) of the Factories Act has also now been dispensed with. These and other similar issues will continue to create poor reporting and accountability of the industry and the government agencies, regarding OSH information and compliance.

5. There is no provision for coordination between the research activities that may be undertaken (e.g. CRUSHED) and the recommendations made by the National/State OSH Advisory Boards, and for placing significant recommendations in the Houses of Parliament, so that these issues can be debated and adopted nationally.

11 Thanks to input from Prof K R Shyam Sundar, XLRI, Jamshedpur

6 The constitution of a Safety Committee is now subject to the notification of the government (a special or a general order) irrespective of the industry and its hazardous nature. The Code also requires engagement of Safety Officers in establishments with varying thresholds that may again create confusion/laxity, viz. (a) factory wherein 500 workers or more; or (b) factory carrying on hazardous process wherein 250 or more; or (c) building or other construction work wherein 250 workers or more; or (d) mine wherein 100 workers or more, are ordinarily employed.

7 The Factory Inspector's designation has been changed to Factory Inspector-cum-Facilitator, and the role and powers have now been limited to issuing prohibition and improvement notices and checking their compliance in subsequent inspections. The Code and Rules have not specified conditions under which the Facilitator can pass orders for immediate relief for aggrieved workers or action against a highly non- compliant employer.

8 There is still no definition of the components of spreadover of a 12- hour day or 48- hour week, which may result in workers' shifts prolonging beyond 12 hours a day. This provision has been much abused in several industries. It should be possible to define the hours of rest, change over, wash room time, fatigue time, tea time, etc. based on scientific exercises and also relying on historic practices.

SII had raised the question with the Parliamentary Commission on the Code at its draft stage and with the drafting team in the Labour Ministry whether the new Code will prevent, or even reduce significantly, the kind of accidents and injuries reported in this series of reports. Despite that concern, most of SII's recommendations were rejected in the final stages of approval.

FIGURE 29: The Code fails to achieve even reasonable balance between enabling of ease of doing business, and protecting & strengthening labour welfare and their rights [12]

12 www.businesstoday.in/latest/economy-politics/story/new-labour-laws-are-pro-business-anti-workers-273890-2020-09-25

5

Doubly “dangerous” power press machines with rampant legal violations

5.1 A majority of the crush injuries reported to SII happen on power press machines; press machines in Faridabad worse than those in Gurugram.

A power press accident: litany of legal violations

Rupesh, 22, Bulandshahar, Uttar Pradesh. Lost the index finger of his right hand.

रूपेश कंपनी में बतौर चेकर काम करते है। प्रोडक्शन की डिमांड ज्यादा थी। इस कारण कम्पनी में मालिक ने बोला की रूपेश थोडा सा माल बचा है इसे निकाल दो , ये अर्जेंट है। रूपेश ने बोला की मै मशीन नहीं अच्छे से नहीं चला पाता हूँ मै तो चेकर हूँ। तो कंपनी मालिक ने बोला की ये माल निकालो नहीं तो कल से गेट बंद कर दूंगा तुम्हारा। इस कारण रूपेश ने मशीन चलायी।

लेकिन जब मशीन चल रही थी तब रूपेश ने देखा की मशीन का नट लूज है , इस कारण उसने अपने मेंतिनेस वाले को बताया। तो उसने बोला की चलाओ कोई दिक्कत नहीं है। इस कारण जब रूपेश मशीन से पीस निकाल रहे थे तभी मशीन डबल आगई और उंगली कट गयी।

Rupesh worked in an auto sector factory in Gurgaon as a "checker". On a day of high production demand, the factory owner asked him to "just make some parts." When Rupesh said that he cannot operate the power press well enough, the owner threatened him by saying "I will close the gate on you tomorrow" (i.e. "do not bother to come to the factory tomorrow").

A helpless Rupesh had to operate the machine. He, however, saw that a nut in the machine was loose and informed the maintenance team, who asked him not to worry about it. However, the machine failed, and Rupesh lost one finger because of a "double stroke".

Power press machines continue to cause most of these accidents. In Gurugram, they have been contributing to more than half of all injuries in the past five years (lower at 47% during the April - September 2021 period, possibly due to Covid-related production disruptions).

SII's recent expansion in Faridabad shows much worse metal-forming factories; their power press machines account for an even larger 70+% share of all injuries reported to SII.

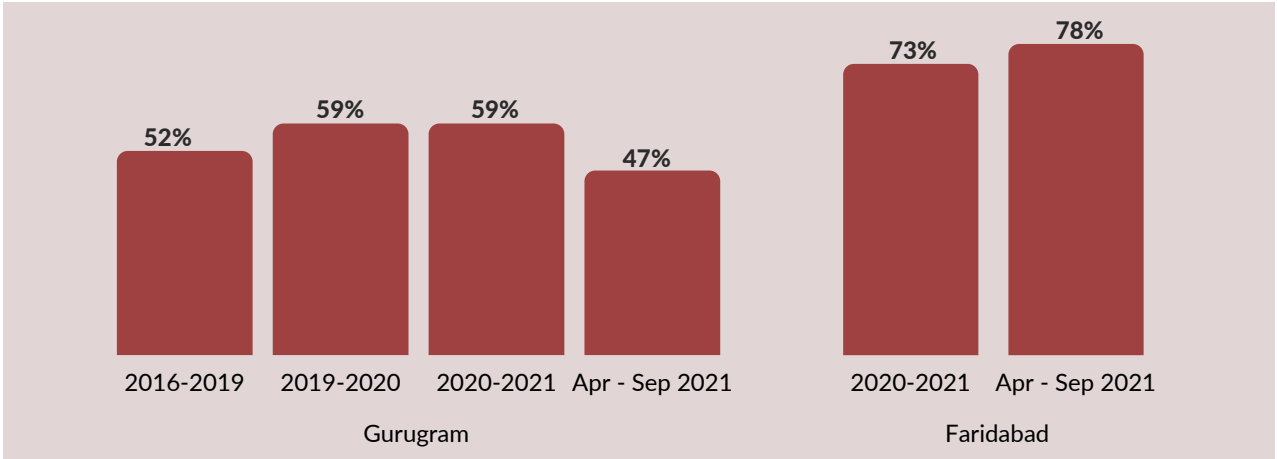


FIGURE 30: Proportion of power press injuries in Gurugram and Faridabad

Even in the small auto-sector hub of Rudrapur, explored briefly by SII, 67% of the injuries occurred on power presses.

Other than power presses, moulding machines, CNC machines, die casting machines, shearing machines, and roller machines also contribute to many of these accidents.

SII has, therefore, been recommending to both the auto sector and the government to prioritise actions on power presses nationally.

5.2 Power presses are essential in the supply chain of all auto sector brands.

All auto-sector brands have supply chains that include many factories using power presses for metal-forming as the graph below shows for Gurugram, where SII-assisted workers, those injured on power presses, were making parts for at least six OEMs.

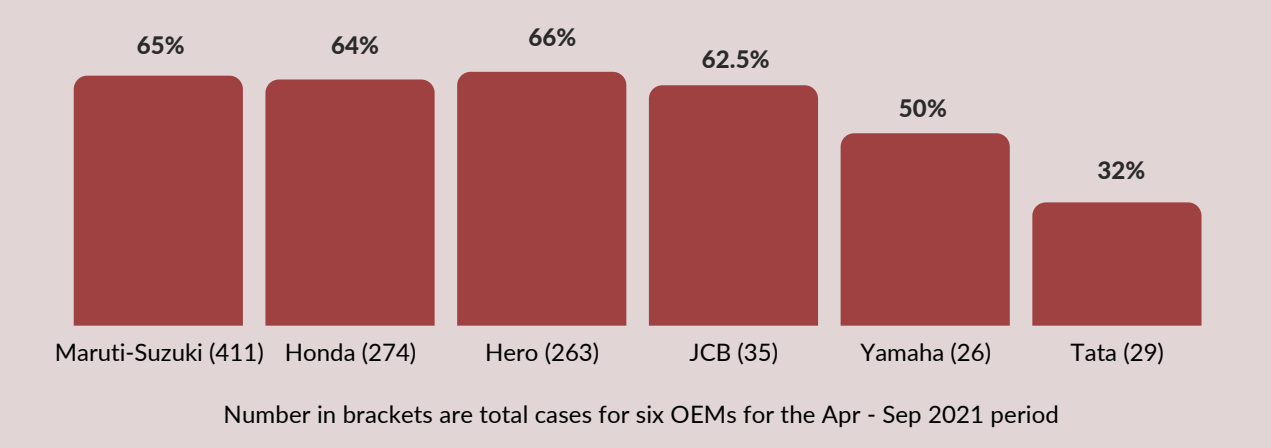


FIGURE 31: Percentage of power press accidents by auto-sector brand (OEM) in Gurugram and Faridabad

In addition, even in Rudrapur and Neemrana, power press accidents were reported by the injured workers in supplier factories to Mahindra & Mahindra, Tata Motors, Bajaj, and Hero.

Clearly the industry needs to come together to address the safety of power presses in their supply chains, which are often shared.

5.3 The probability of losing fingers on a power press machine is twice as much as other machines, and a worker loses half a finger more on a power press machine accident than on other machines.

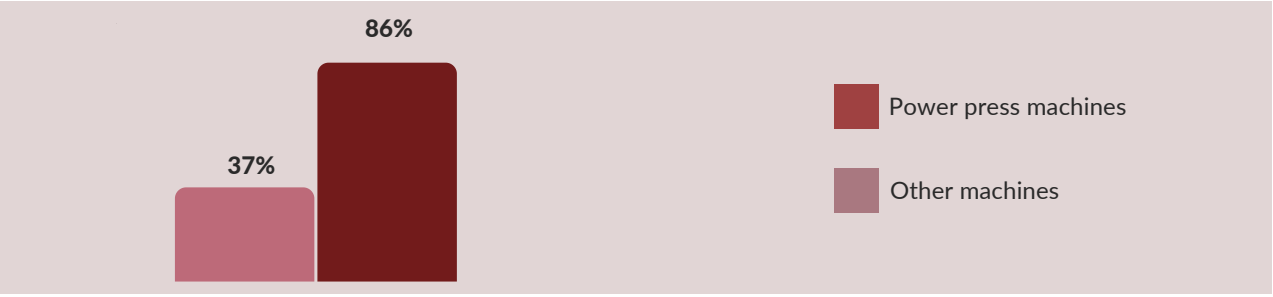


FIGURE 32: Probability of losing fingers on power press machine vs. other machines

The probability of losing a body part(s) is more than twice in a power press machine, compared to other machines (86% vs 37%, statistically significant at 1% level with t-stat 27.7).

FIGURE 33: Power press machines crush more fingers than other machines

Among the workers who lost their fingers, losses on power press machine are much worse; the average number of fingers lost is higher in power presses by 0.59 fingers compared to other machines (statistically significant at 1% level with t-stat 15.3).

5.4 Both young and old workers lose fingers equally on these power presses; experience does not seem to make up for unsafe machines.

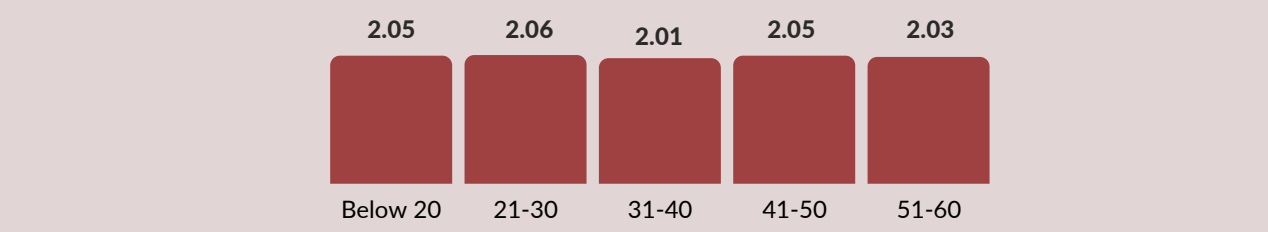


FIGURE 34: Average number of fingers lost vs. age. n=1,014; 4 outliers aged > 61 years removed.

SII tested the hypothesis that older workers are less injury-prone as "they get trained well on the job and don't need formal training/education" (statement by an ISH deputy director).

However, assuming higher age represents higher experience in factories (broadly supported by SII's experience with injured workers), workers experience accidents of similar severity (i.e. lose 2.04 fingers), irrespective of age.

5.5 Despite power presses being "dangerous", most workers injured on power presses were inadequately trained and have low education levels.

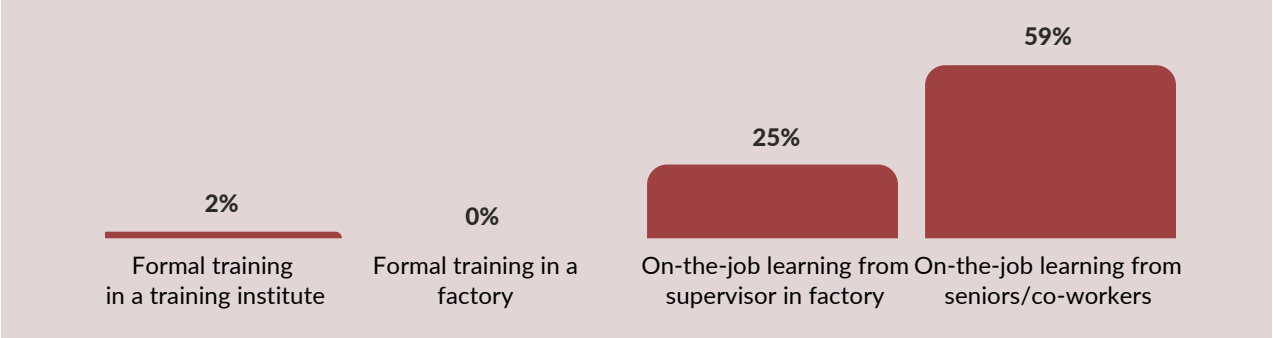


FIGURE 35: The training reportedly provided to injured workers, which is clearly inadequate

Dilip Kumar Sharma, 23, Aurangabad, Bihar

"YouTube पे सीख गए |"

"I learnt on YouTube."

Lata Devi, 41, Sultanpur, Uttar Pradesh

"एक बार दिखाया फिर सीख गए |"

"It was shown to me once and I learnt."

Yogesh Kumar, 28, Rewari, Haryana

"काम करते करते सीख गए |"

"I learnt while working on the machine."

Vipin Verma, 20, Sitapur, Uttar Pradesh

"एक दुसरे को देख के सीख गए |"

"We learnt by watching each other."

Sunil Kumar, 28, Rajasthan

"हेल्परी करते हुए सीख गए |"

"I learnt while helping the operator."

This is a violation of Section 7A of The Factories Act and Rule 5 of Punjab Factory Rules, 1952 (see section 5.7 below).

86% of injured workers on power press have grade 10 or less education level. The Automotive Skill Development Council (ASDC) has indeed stipulated grade 10 as the minimum academic qualification for the power press operator role. SII believes this to be inadequate, without also defining minimum training requirements and minimum skill levels before a worker is allowed to operate on a power press.

5.6 A majority of these crush injuries happened on power presses that should have had safety sensors but did not; in most cases, other required PPE was also missing.

88% of the injuries occurred on power presses that did not have any safety sensors, as advised by the injured workers, in violation of Sections 7A, 7B and 24 of The Factories Act, 1948.

Crucially, almost half the injured workers identified problems with their power press machine even before they started operating them. If their feedback/complaint was acted upon, these workers' fingers could have been saved, and the factories would have been more productive.

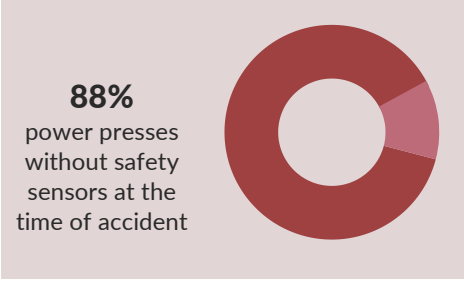


FIGURE 36: Power presses without safety sensors at the time of accident

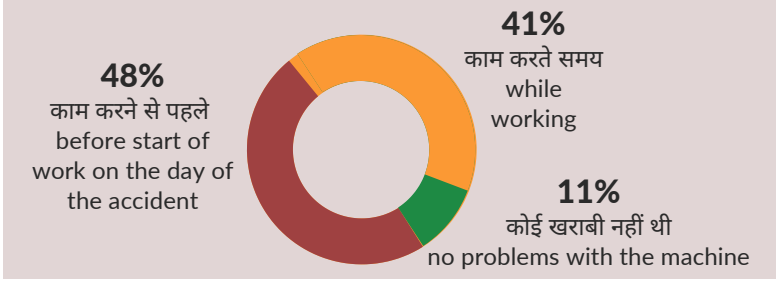
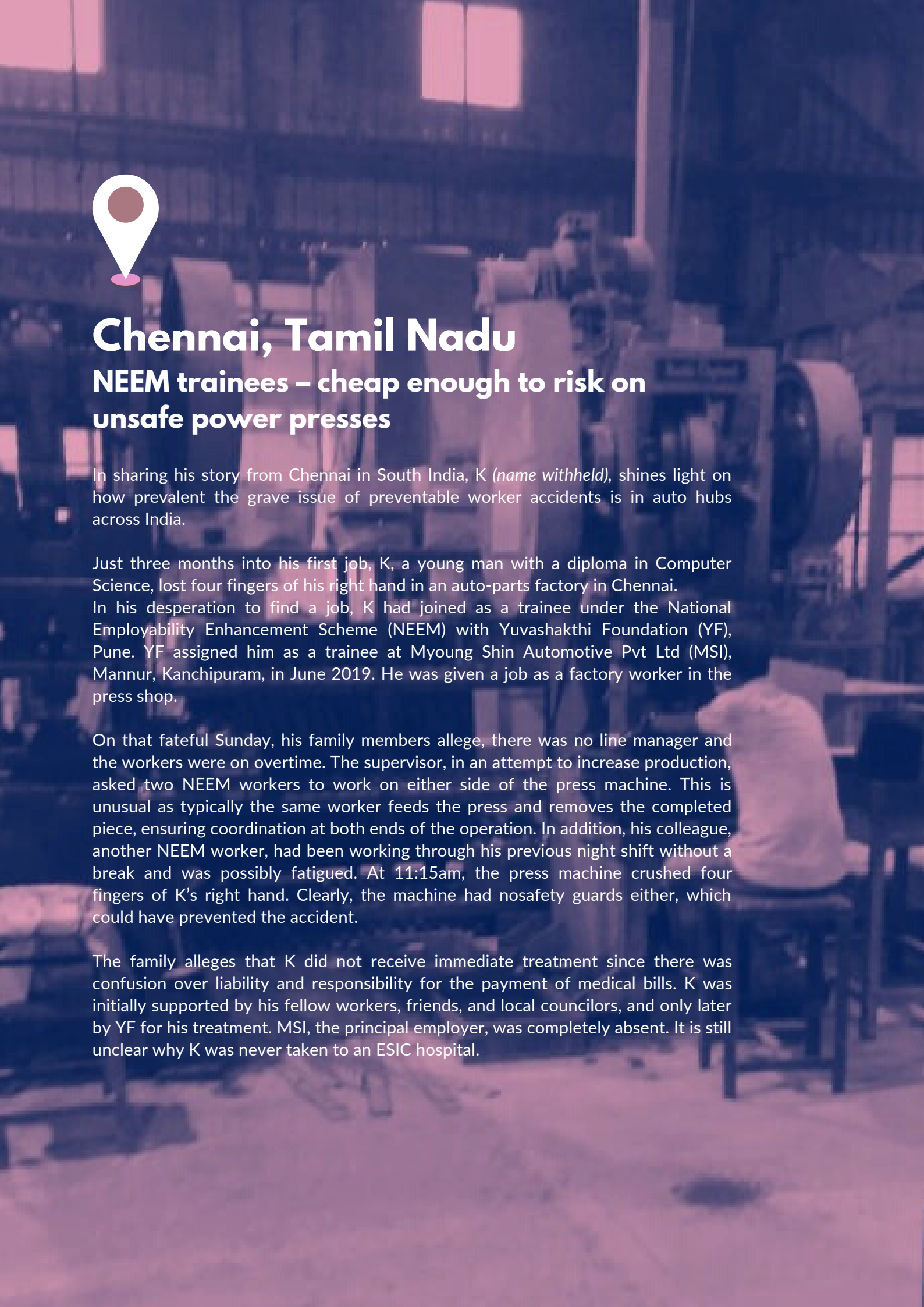


FIGURE 37: A majority of injured workers identified a problem with their machine *before* the accident



Chennai, Tamil Nadu

NEEM trainees – cheap enough to risk on unsafe power presses

In sharing his story from Chennai in South India, K *(name withheld)*, shines light on how prevalent the grave issue of preventable worker accidents is in auto hubs across India.

Just three months into his first job, K, a young man with a diploma in Computer Science, lost four fingers of his right hand in an auto-parts factory in Chennai.
In his desperation to find a job, K had joined as a trainee under the National Employability Enhancement Scheme (NEEM) with Yuvashakthi Foundation (YF), Pune. YF assigned him as a trainee at Myoung Shin Automotive Pvt Ltd (MSI), Mannur, Kanchipuram, in June 2019. He was given a job as a factory worker in the press shop.

On that fateful Sunday, his family members allege, there was no line manager and the workers were on overtime. The supervisor, in an attempt to increase production, asked two NEEM workers to work on either side of the press machine. This is unusual as typically the same worker feeds the press and removes the completed piece, ensuring coordination at both ends of the operation. In addition, his colleague, another NEEM worker, had been working through his previous night shift without a break and was possibly fatigued. At 11:15am, the press machine crushed four fingers of K's right hand. Clearly, the machine had nosafety guards either, which could have prevented the accident.

The family alleges that K did not receive immediate treatment since there was confusion over liability and responsibility for the payment of medical bills. K was initially supported by his fellow workers, friends, and local councilors, and only later by YF for his treatment. MSI, the principal employer, was completely absent. It is still unclear why K was never taken to an ESIC hospital.

5.7 A multitude of violations of extant rules and regulations for power presses; many would be potential criminal offences

These thousands of injuries to factory workers, every year, happen only because of rampant violations of the Factories Act and of the rules governing power presses.

One example is the common violation of the rule regarding daily testing and inspection of these "dangerous machine"' required by a "Trained Person" as per Rule 8 of the Punjab Factory Rules (also applicable in Haryana).

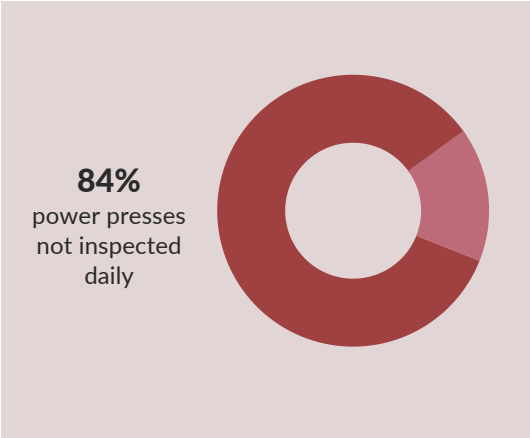


FIGURE 38: Proportion of power presses inspected daily per Rule 8 of Punjab Factory Rules

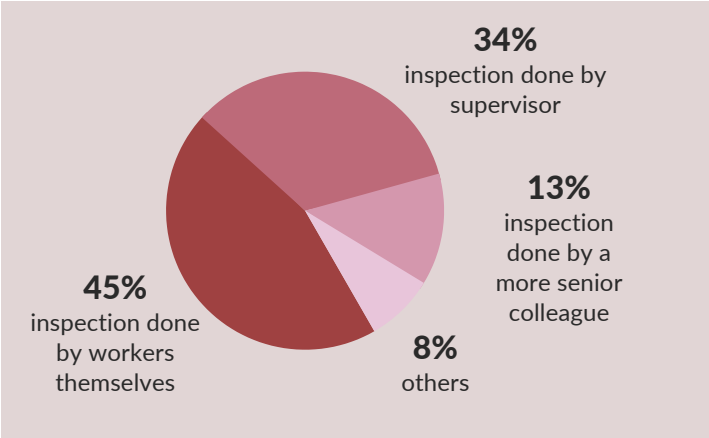


FIGURE 39: Is a "trained person" inspecting the power press as required by law?

Only 16% of the injured workers said that their power presses were inspected daily. Of these, almost half of the inspections were done by themselves, who SII believes are rarely trained to do so and/or empowered to correct any deficiencies found.

Several rules and regulations listed below are being violated in these factories.

The Factories Act, 1948	Section 7A	General duties of the occupier (e.g. auto parts manufacturer) towards health and safety of workers which includes instruction, training and supervision
	Section 7B	General duties of manufacturers e.g. equipment, attachments to be in compliance with standards
	Section 21	Fencing of machinery r/w read with rule 20 of Punjab Factory Rules to safeguard the workers from the moving parts of the machinery
	Section 24	Protection against striking gear and devices for cutting of power (for emergency stop)
	Section 88, 88A	Proper reporting and notification of accidents, r/w rule 37 of Punjab Rule (including dangerous occurrences)

Relevant power press rules under the Punjab Factory Rules, 1952 (also applicable in Haryana)	Rule 3	Provision of emergency stop to prevent over-running of the press or descent of the ram during tool shutting etc.
	Rule 4	To preclude the possibility of the worker's hand or fingers reaching the danger zone
	Rule 5	Power press to be prepared for use by an 18+ personnel with training containing suitable and practical instructions
	Rule 6	Provides for examination and testing of Power Presses and safety devices in the last one year by a competent person
	Rule 8	Power press shall be inspected and tested by a trained person every day

TABLE 1: Relevant sections of of the Factories Act, 1948 and Punjab Factory Rules, 1952 (also applicable in Haryana) that are being violated, causing thousands of worker injuries.

IPC 287: Whoever does, with any machinery, any act so rashly or negligently as to endanger human life or to be likely to cause hurt or injury to any other person, or knowingly or negligently omits to take such order with any machinery in his possession or under his care as is sufficient to guard against any probable danger to human life from such machinery, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

IPC 320: The following kinds of hurt only are designated as "grievous": Emasculation; Permanent privation of the sight of either eye; Permanent privation of the hearing of either ear; Privation of any member or joint; Destruction or permanent impairing of the powers of any member or joint; Permanent disfiguration of the head or face; Fracture or dislocation of a bone or tooth; Any hurt which endangers life or which causes the sufferer to be during the space of twenty days in severe bodily pain, or unable to follow his ordinary pursuits.

Bhoop Singh, 31, Firozabad, Uttar Pradesh. Lost the middle and index fingers of his right hand.

"पावर प्रेस मशीन पहले से ख़राब थी | एक बार स्ट्रोक दबाने पर दो बार स्ट्रोक आता था | पहले भी इस कंपनी में इस तरह 3 से 4 लोगों की उंगलियां कट चुकी है | एक वर्कर की तो आँख भी निकल गयी | मशीन की जांच रात में नहीं होती है |"

"The power press machine was already malfunctioning. Pressing the pedal switch once resulted in two strokes. I know of 3-4 workers have lost their fingers here. One worker even lost his eye. The machine is not checked for the night shift."

Sonu Singh, 18, Alwar, Rajasthan. Lost the middle, index, and ring fingers of his left hand.

"मशीन के पार्ट ढीले थे। इस कारण मशीन ऑटोमेटिक हो गयी। इस कम्पनी में सारी मशीन ख़राब रहती है हमेशा। पहले भी चार लोगो को की उंगली कट चुकी है।"

A machine part came loose, resulting in machine becoming 'automatic.' All machines in this company are bad. Before me, four other workers have lost their fingers."

In several focus groups of injured workers conducted by SII over the past five years, workers have indicated that the above rules are rarely, if ever, followed.

The Indian Penal Code, Section 287, criminalizes possession of machinery that endangers human life or is likely to cause hurt or injury to any other person.

5.8 These accidents can be significantly reduced with small investments, leading also to savings/productivity gains.

While replacing workers (easily available in India given the current high unemployment) is seen as a negligible cost by many an errant management and factory owners, there is ample literature showing the direct and indirect/hidden costs of such accidents in terms of medical expense, disruption to production, investigation costs, material damages, compensation and "corruption" costs, negative impact on quality, and indeed worker motivation.

ACMA's technology arm emphasises that the loss to a business is at least six times the direct expense of an accident in medical costs and loss of pay.

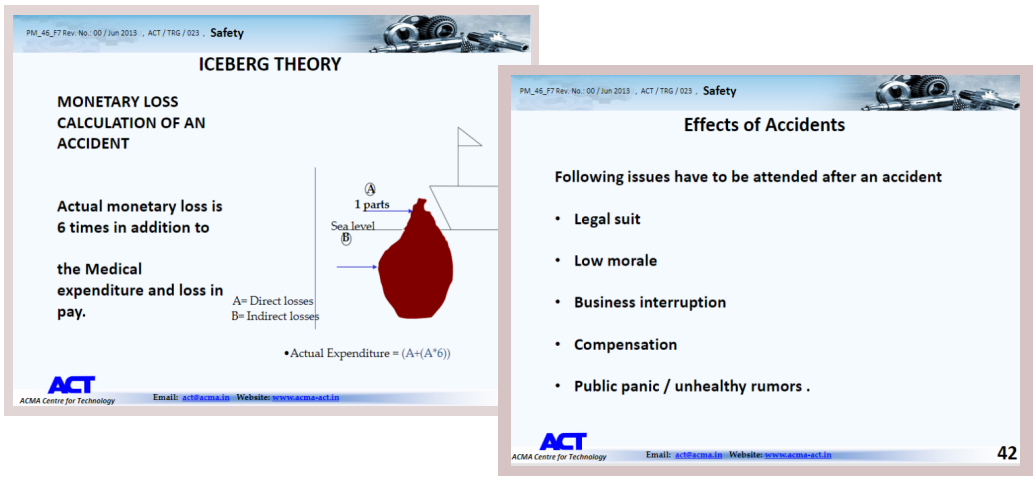


FIGURE 40: ACMA's estimate of the cost of an accident. Sourced from ACMA training programme slides.

Mr R S Sharma, Head - Health and Safety, Sriram Pistons and Rings, at the launch of SII's report SafetyNiti 2021

"Sriram Pistons and Rings reported cost savings in medical expenses of 17 lakhs (34%) in the four years of safety investment. Additional economic benefits were achieved through reduction in noise levels, reduced hazardous waste and reduced oil."

Mr Sunil Arora, MD, Abilities Pistons, at the launch of SII's report SafetyNiti 2021

"Safety makes good business sense. A worker on a machine present on a particular day gives you revenue, so if you want to just say that you're going to let the worker go away with an accident and then get another one it's not going to happen. These people are not available today. Manpower cost (blue collar workers) has gone up today."

SII is currently working with ACMA to create a business case for safety in a currently unsafe factory. Early indications are that investments in light tech solutions on unsafe power presses pay back quickly in improved productivity and reduced costs. This case study will be published in early 2022.

FIGURE 41: A panel discussion on safety policies in the auto sector; several stakeholders acknowledged that worker safety is conducive to labour productivity [13]

13 Watch the video at www.youtube.com/watch?v=rx4T-AxshQA. Also on SII's YouTube channel.

6

SII's role in helping improve worker safety, especially in the auto sector supply chain

Safe In India is a civic initiative, started and supported mainly by the alumni of IIM Ahmedabad '91, IIT Roorkee '88 and other reputable Indian donors like Azim Premji Foundation and Lal Family Foundation. The SII team, with guidance from its highly respected Advisory Council, works on this somewhat-neglected area of industrial safety, and on improving ESIC service delivery, through its four pillars of impact.

Pillar 1: Assisting injured workers with ESIC healthcare and compensation: Since establishing its first Worker Assistance Centre at Manesar, Gurugram, in December 2016, SII has provided free-of-cost assistance to 3000+ injured workers in distress, by helping them obtain better ESIC healthcare, and ESIC compensation Rs. 25 crore in value. Another 155 uninjured workers have been assisted in receiving Covid-related unemployment benefits of Rs 27.5 lakhs.

Pillar 2: Advocacy for improving workplace safety (and thereby productivity) in manufacturing, with focus on the large auto-sector supply chain: Since 2018, with the experiences of workers assisted under Pillar 1, SII has published an annual series of accident prevention reports and gradually engaged with a number of auto brands and their apex bodies, SIAM and ACMA, to push for improvement in safety practices in their supply chain, which employs 8-10m Indians. The central and Haryana state governments have already created working groups based on SII's reports and advocacy. A few of SII's recommendations are in various stages of discussions/implementation. However, this is just the beginning and there is a long way to achieve significant reduction in these accidents nationally.

Pillar 3: Advocacy to improve ESIC's health and insurance payment services nationally: Since 2017, SII has engaged with ESIC for national improvements in the design and implementation of their healthcare and compensation services to make them more worker-centric, given that these workers are their insurance-premium-paying customers. Any such improvements potentially help over 140m Indians (45m workers insured under ESIC and their families), who depend on ESIC in case of injuries and/or sickness or death.

Pillar 4: Educating workers on safer (and more productive) work practices and ESIC services: SII aims to empower workers by educating them via in-person interactions (e.g. monthly worker support groups and community outreach), print collateral, and, since 2020, through social media. 1,400+ workers have already attended SII's support groups/community meetings, 10,000+ workers now follow SII's Hindi Facebook (100,000+ engagements and 25,000+ video views) and SII aims to increase its social media reach to 1m+ workers in the near future.

Despite Covid, SII has made significant achievements in five years – and engaged in award-winning work on Covid relief.

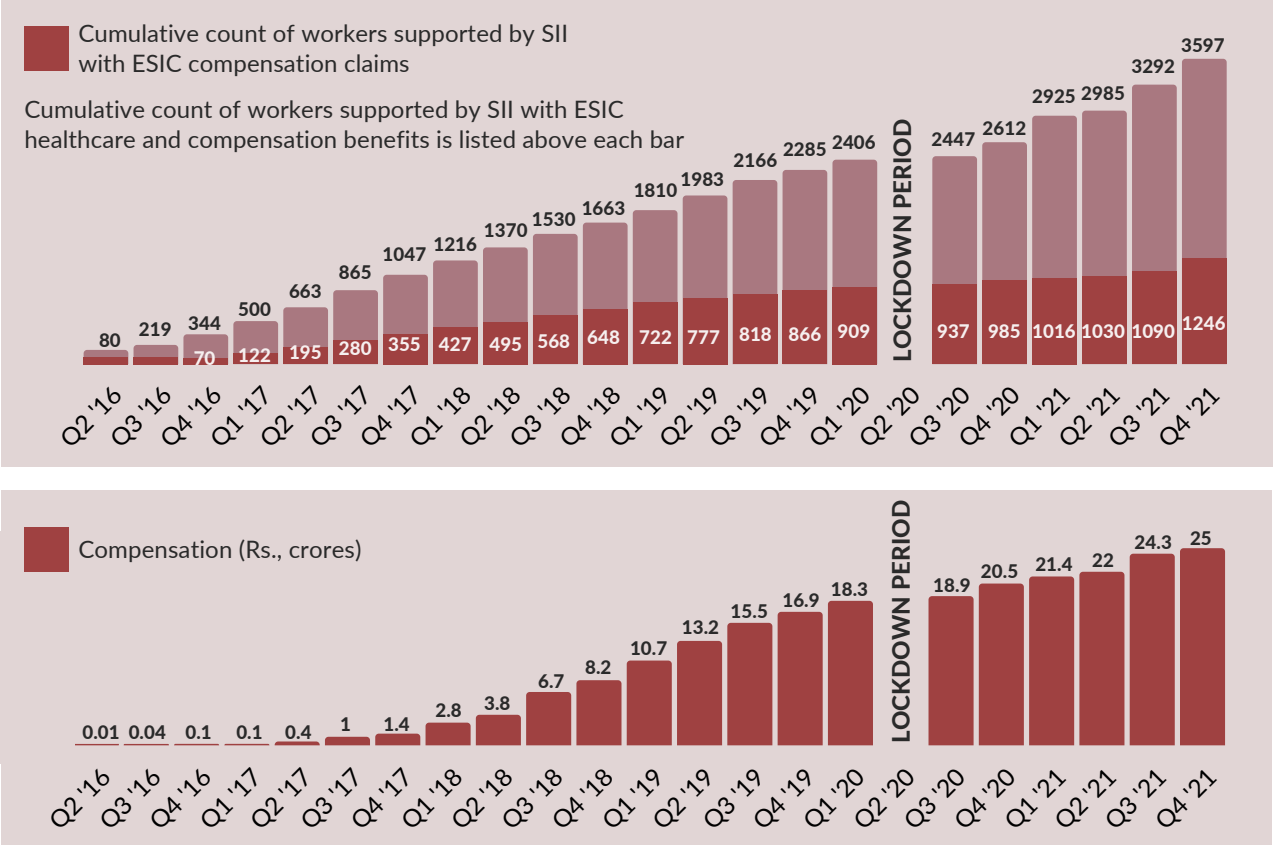


FIGURE 42: Injured workers assisted by SII, and compensation amount obtained for them

10x return just on ESIC compensation (Rs 20 crores+) obtained for workers

3,000+ workers assisted with ESIC healthcare and compensation

Rs 800m+ disbursement via COVID Unemployment Scheme; with SII's recommendations for improvement

10+ ESIC national notifications with SII recommendations – impacting 160m people (workers + families)

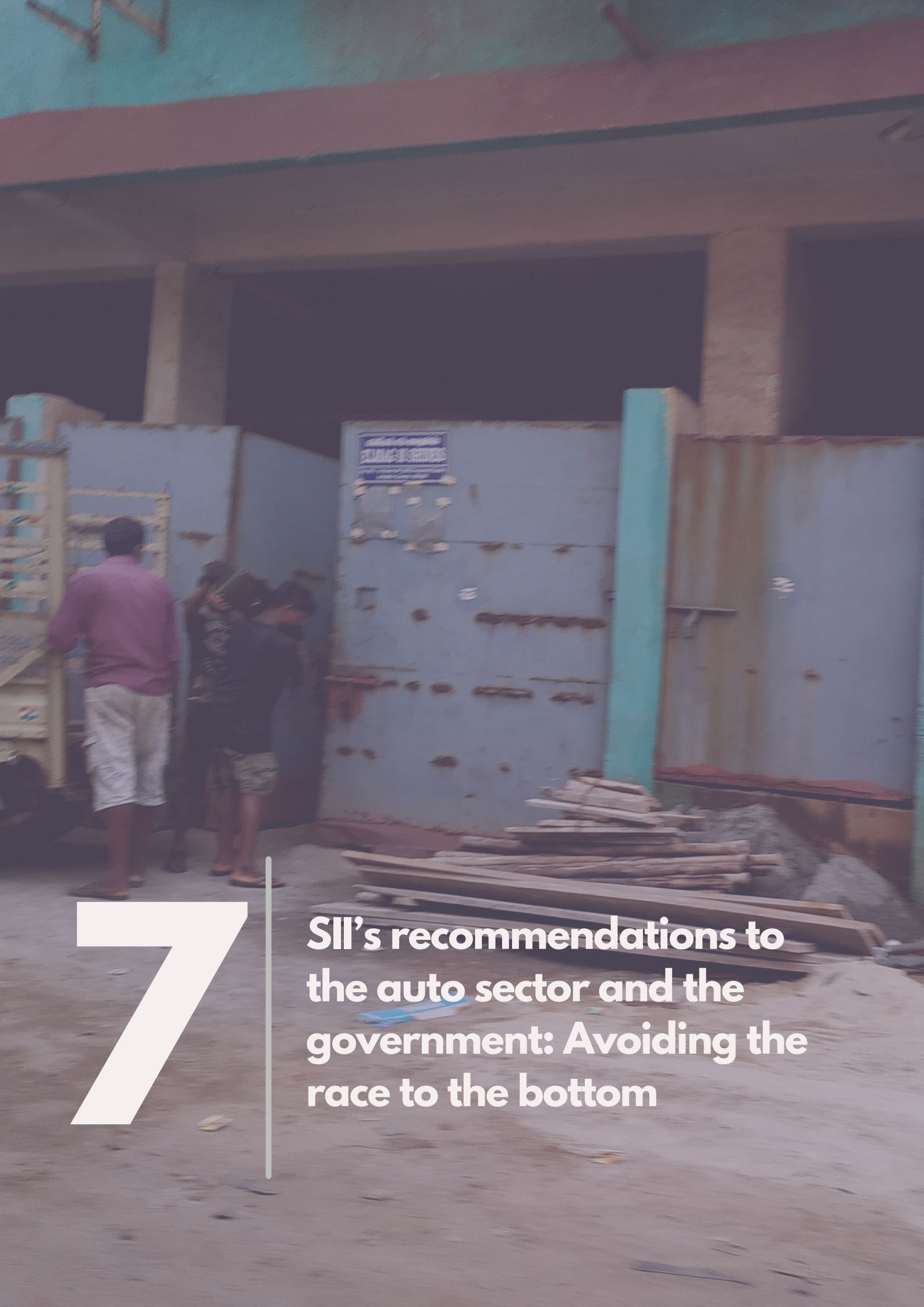
25,000+ views on awareness and educational content on ESIC and safety

Safety programs by Maruti-Suzuki, Honda and ACMA following SII safety reports; there many be other similar programs SII is not aware of

Covid relief: 500,000 adult meals, 25,000 masks, 150 workers transported home, 1000 vaccinations (100 ICU/Fowler beds In progress); recognized through ESIC's national award for Covid wave-2 relief support

Mr Vikram Lal, Founder, Eicher Motors

"I am very impressed by the work you and your colleagues have done and are doing. Wishing you continued success in this very important work."



7

SII's recommendations to the auto sector and the government: Avoiding the race to the bottom

Only the auto-sector brands have the financial strength/commercial power over their supply chains to address this problem effectively and sustainably. SII, like many others, believes that it is the private sector, especially the large corporates, that also holds the most influence over government policies and their implementation. SII has thus been engaging with the auto-sector OEMs in a constructive, solution-centric way since 2018/19 to influence them into action.

Clearly, the government too has a critical role to play in forming fair rules and regulations and implementing them effectively. SII has, therefore, also been engaging with the central and state labour departments (since 2018), and ESIC (since 2017) to push for solutions.

Much of this problem is on account of the manufacturing sector, especially MSMEs, banking on only cheap labour–racing to the bottom of labour costs and labour productivity, and failing to upgrade their manufacturing and management practices for future needs. This needs to change.

Progress with these stakeholders has been slow, mixed and inconsistent, but it is an encouraging start, despite Covid interruptions for much of the recent period. SII hopes that both the industry (auto-sector OEMs, SIAM, and ACMA) and the government will accelerate implementation of several SII's recommendations to soon make a serious dent in this problem.

7.1 Top 5 operational recommendations to OEMs based on findings in the CRUSHED annual series of reports

1. OEMs' boards should take ownership of OSH in their deeper supply chain, which will not only help deliver genuinely on the environmental, social, governance (ESG) principles and Sustainable Development Goal (SDG) 8.8, but also help India improve its manufacturing professionalism and labour-productivity for the future.

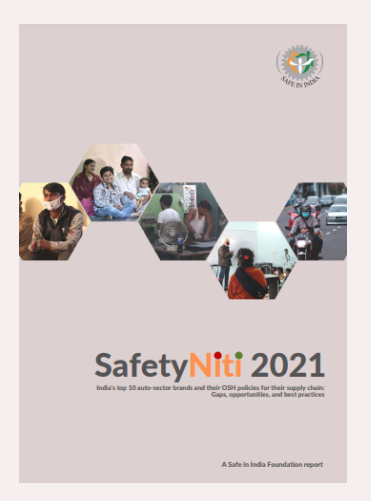
2. Create a joint industry-level task force to address this issue of preventing accidents in deeper supply chain and establish a level playing field (see recommendations to SIAM).

3. Map the deeper supply chain starting with Tier 2s, and conduct periodic safety assessments in the deeper (Tier 2/3/4) supply chain with the objective of improving their safety standards sustainably, even if it is done in phases.

4. Improve transparency and accountability for worker safety/injuries in the deeper supply chain, leading to weeding out repeat offenders of worker safety in the deeper supply chain, while commercially rewarding safer suppliers.

5. Initiate and drive a number of ground-level improvements as soon as possible, e.g.:
   - Create an industry-level system of training all workers (especially migrants and contractual) on OSH.
   - Provide supply chain workers an affective grievance redressal mechanism.
   - Set up a web portal for information relating to workplace safety, including machine safety in simple and pictorial language e.g. safety information for power presses used by Tier 2/3/4 suppliers, the required quality of PPE, cost-benefit case studies for 'Better working conditions improve productivity, quality and reliability of supply.'
   - Set up a facility to answer safety-related queries of deeper supply chain members.
   - Support ASDC in launching a national programme for recognising workers' prior learning and a certification programme for workers in the supply chain.

In addition to the above five operational recommendations, SII had also made 5 policy recommendations to auto brands (OEMs) on worker safety for themselves and their deeper supply chains as proposed in SII's recent report SafetyNiti 2021



1 Categorically state the inclusion of contract/irregular/temporary workers (generally 50-70% of OEM's workforce) in their OSH policy for their own factories, same as their permanent workers, and have such a policy in the public domain.

2 Create, and make available in the public domain, a Supplier Code of Conduct (SCoC) including OSH, ideally as a subset of their corporate Code of Conduct (CoC), with a clear definition of "supplier" and including mechanism for OSH in the deeper supply chain (Tier 1/2/3/etc.) in the spirit of the National Guidelines on Responsible Business Conduct (NGRBC).

3 Create, and implement a Standard Operating Procedure (SOP) and an OSH implementation plan for the deeper supply chain, even if such implementation is planned and executed in phases, over a reasonable period. Include credible surprise audits, transparent and reliable reporting of accidents and near-misses, and accountability to auto-brands. Effective carrot and stick for good and bad behaviours. Make this a regular corporate board agenda item.

4 Report annually on SDG Indicator 8.8 (the only Sustainable Development Goal for worker safety) in your Sustainability/Business Responsibility/Annual/etc. Reports.

5 Demand that the deeper tier suppliers comply with the OSH & WC Labour Code to at least:

- Issue employment letters to all workers,
- Conduct a medical health check for all workers above 40 years,
- Pay twice the standard rate for overtime, and
- Register all eligible workers under ESIC, to ensure they get their and their families' legal right for healthcare and compensation – before and after any injuries/death.

7.2 Top 5 recommendations to the auto-sector apex organisations – SIAM and ACMA

1. Bring the auto industry together to create a joint task force for OEMs and other stakeholders to prevent accidents in the auto sector deeper chain, while also improving productivity.

2. Set up a permanent joint safety team/working group of SIAM and ACMA, with SII's participation as required, to showcase good practices and train members on strategic and tactical costs of accidents and how to reduce them.

3. Establish industry standards for safety in auto sector manufacturing.

4. Integrate worker safety and health as core organizational values of its members.

5. Support SIAM and ACMA members in complying with NGRBC for long-term business success and compliance.

7.3 Top 5 operational recommendations to the central and state governments to drive a culture of workplace safety in the country

Without improving working conditions, of which OSH is a critical part, in its factories, India cannot lead in manufacturing globally, now or in future. It is inconceivable that the country can advance technically and professionally into higher value-added production, while working mainly on the premise of cheap labour.

SII's top 5 recommendations to the central and state governments, other than those made for the new Labour Codes separately, are:

1. Central and State Labour Ministries should drive calibrated actions to achieve the objectives of the Occupational Safety and Health Policy, 2009 (e.g. the concerns raised in Section 4.5 with OSH Labour Code need to be addressed through appropriate State Rules, improved focus on work-related-injuries, fatalities and diseases, and provide for a more comprehensive injury, death, and disease database for better monitoring and execution).

2. Use data from ESIC to determine selection of factories for inspection and conduct safety surveys and studies across sectors and sizes of factories especially the auto sector.

3. Create a reliable accident/injury reporting and governance system, and use it for constant continuing improvements, including strengthening of ISH in the states to improve factory inspections (irrespective of their new role as 'facilitators') and penalties for repeat offenders.

4. Set up a confidential helpline for workers to report unsafe conditions and accidents in factories.

5 Introduce a practical policy and mechanism for safety training of contract and migrant workers. For example, set up worker assistance centres in industrial zones to provide legal aid, and educate workers on safe working conditions, social security schemes, and legal rights regarding OSH.

In addition, SII has recommended several smaller tactical initiatives e.g. setting-up of a web portal for information and guidance on safety at workplace, including machine safety in simple and pictorial language/regional languages, simple OSH policy format that can be used by MSMEs and simpler safety audit and inspection protocols based on size/sector of MSMEs.

All these above recommendations, a mix of strategic and tactical, are based on SII's current experience and its assessment of possibilities under the current circumstances and priorities. Clearly, they will evolve with time and progress made (or not).


उद्योगों में अपंग हो रहे कामगार, नहीं मिल पा रहीं स्वास्थ्य सुविधाएं

फरीदाबाद में 200 और गुड़गांव में 250 श्रमिक हो चुके हैं घायल, इसमें से 72 फीसदी गवां चुके हाथ और उंगलियां

चाहिए हक और रोजगार

सेक्टर 24-इंडस्ट्रियल एरिया में काम करते हैं सैकड़ों कर्मचारी

बदतर हालात

मशीन की चपेट में आकर कटा हाथ का पंजा

हादसे के 2 साल बाद भी नहीं मिला क्लेम

कंपनियों की मनमानी पर लगे लगाम

THE ECONOMIC TIMES | Industry

Auto industry lacks policies to ensure worker safety throughout the supply chain: Report

FIGURE 43: SII encourages the auto sector, with its commercial power over its supply chain and influence over government policies and implementation, to take the lead in improving safety in the sector [14].

14 Watch the video at https://economictimes.indiatimes.com/industry/auto/auto-news/auto-industry-lacks-policies-to-ensure-worker-safety-throughout-the-supply-chain-report/articleshow/84266846.cms

Faridabad, Haryana

Ramesh Chandra lost six fingers in two accidents. Will his wife lose her fingers, too?

After two decades of grinding work in the press shops in the auto-sector supply chains in Faridabad, one would imagine that Ramesh Chandra has some financial security and a stable future to look forward to for himself and his family. Yet, today, his body bears marks of violence, with severed-off fingers, stubs instead of thumbs, and additionally the prospect of unemployment and untenable debts.

Ramesh lost four fingers on his right hand in an accident seven months ago in the press shop of an auto-component factory in Faridabad. A skilled machine worker, he knows that the fault was the machine's and not his own: There were no sensors or safety mechanisms in place on the machine. Like many workers, this was not his first accident. He had previously lost two fingers of his left hand in another auto-factory accident six years ago.

Despite being medically cleared and declared 'fit for work' by ESIC, his employer has not called him back for a job. Ramesh did contemplate filing a complaint at the local labour court, but the lawyer he spoke to demanded a fee, which he was unable to pay.

His daughters, too young to understand, mill around the rented room as he wonders how he will secure a promising future for them. Though neither Ramesh nor his wife, Vinita Devi, consider paying for girls' schooling a burden, the five-member family's debts, already high, are mounting.

Out of sheer desperation, Vinita has found a job in a similar dreaded press shop in another auto-parts factory nearby. The question in both their minds now is: "अगरपत्नी कीउँगलियाँ एकएक्सीडेंट मेंकट गईतो?" ("What if her fingers, too, are lost to another accident?")

8

SII's engagement with the auto sector and the government: Encouraging start but a very long way to go

In championing the cause of worker safety with the auto sector OEMs and the government, SII has been able to initiate and sustain several key engagements that have resulted in a movement in the right direction of a long journey.

AUTO BRANDS: TOP 3

Maruti-Suzuki: The most engaged OEM since 2019

- Regular meetings on status, actions, and progress
- Participated in the release of SII's reports: CRUSHED 2019 and SafetyNiti 2021
- Reduced c.15% (unsafe) suppliers
- Joined quarterly platform created by ISH Gurugram and SII
- Conducted new OSH-sensitisation sessions with its Tier 1s
- Agreed to extend the OSH infrastructure improvement activity from Tier 1s to Tier 2s; asked Tier 1 suppliers for ISO45000 certification; direct periodic checks in Tier 2s
- Agreed to demonstrate safety-productivity linkage in a Tier 2/3 factory

Honda: Late but a good start to engagement in early 2021

- Started engaging through periodic meetings.
- Joined quarterly platform created by ISH Gurugram and SII
- Conducted its first batch of OSH training for its Tier 1 suppliers
- Included coverage of own contract workers under their OSH Policy
- Awaiting implementation of their global supplier sustainability guidelines in India

Hero: Late start to engagement in 2021 – early days

- First 1-1 constructive meeting with SII in October 2021
- Joined quarterly platform created by ISH Gurugram and SII
- Confirmed building OSH in their "sustainable partner development program"
- Shared their safety posters for use with workers

AUTO BRANDS: OTHERS AMONG TOP 10

Eicher – A positive start: Responded to SafetyNiti 2021 analysis; seeking constructive engagement to improve their OSH policy framework

Hyundai – A positive start: Responded to SafetyNiti 2021 analysis in detail; seeking input to improve their policies

Tata Motors – A hopeful start: Engaged well in early discussions on SafetyNiti 2021; confirmation of actions awaited

TVS – Needs to reengage: Engaged well in early discussions on SafetyNiti 2021; response to recommendations awaited

Bajaj – Surprisingly, no response: Not responded to SafetyNiti 2021 analysis yet; SII hopes this changes soon

Mahindra & Mahindra – Irregular response: Engaged well in 2018-19, but no response to SafetyNiti 2021; SII hopes this changes soon

Ashok Leyland – No engagement yet: No response to SafetyNiti 2021

SIAM and ACMA

- Committed themselves to working closely with OEMs and SII on the issue
- Co-hosted release of SafetyNiti 2021; panellists in the release of CRUSHED 2020
- SIAM committed to including OSH policies/best practises/engagement throughout the supply-chain tiers in their engagement with OEMs; actions awaited
- ACMA/SII jointly working on a Tier 2 factory to demonstrate "Safety investments is good for business even in smaller units"
- ACMA/SII jointly working on nationally recognised minimum training certification for machine operators, potentially with ASDC
- ACMA agreed on a programme for developing digital/animated safety modules

CENTRAL MINISTRY OF LABOUR

- Several meetings with the Labour Minister, Secretary-Labour, Directors on CRUSHED findings/recommendations and Labour OSH and SS Codes
- A working group under DGFASLI constituted based on CRUSHED2019; recommendations of the group not yet in the public domain – following up

HARYANA MINISTRY OF LABOUR

- Numerous communications/meetings on the findings and recommendations of CRUSHED
- A Haryana OSH working group formed in August 2020; its recommendations/actions unclear except progress with ISH Gurugram below

MINISTRY of MSME

- "appreciated the importance of safety in improving productivity of MSMEs"
- Signed an MOU in early 2020 for actions to improve OSH in MSMEs
- Actions were delayed due to Covid and change of guard

DG FASLI (Directorate General Factory Advice Service and Labour Institutes)

- Good engagement since 2020 after change of guard
- Several (relatively minor) improvements on its website for better OSH-information
- Plan to conduct OSH training for workers – a first ever - pilot conducted with SII
- Agreed to progress creating National Safety Standards in simple language and include the clause for a written OSH policy by every organisation.
- RLI Faridabad agreed to conduct power press machine training for workers on Sundays – a first

BIS (Bureau of Indian Standards)

- Formulated a panel to investigate standards for safety of metal-forming machines
- Existing ISO standards for safety will be reviewed for adoption by BIS.
- DG FASLI and NSC (National Safety Council) agreed to join as experts in the panel.

GURUGRAM ISH (Industrial Safety and Health)

- Agreed and created a "platform" of ISH, the three main local auto brands, Maruti-Suzuki, Hero, Honda, and SII, and conducted two meetings
- Agreed to do a cluster safety assessment in early 2022 to scale up later.

MINISTRIES OF INDUSTRY, SKILL DEVELOPMENT, CORPORATE AFFAIRS; NITIAYOG, SEBI

- Several recommendations from CRUSHED AND SafetyNiti
- Asked to improve SDG 8.8 reporting
- Actions awaited

WORKERS, UNIONS, ILO – EMPOWER WITH KNOWLEDGE

- Day-to-day assistance with ESIC knowledge: 3000+ injured workers
- Support groups/Shramik Sammelan/Focus Groups: 1000+ injured/uninjured workers
- Reaching workers nationally through social media: Launched a Hindi Facebook page in 2020; 10,000+ worker follower base.
- Labour unions: All workers assisted by SII are non-unionised. Union role to be explored in the future.
- ILO: Regular engagement since 2019 to provide input on OSH and auto-sector supply chain

WHAT'S NEXT FOR SII

Since 2018, SII has been trying to engage with all relevant stakeholders to drive an effective solution to this multi-pronged problem. Progress has been slow and painful, and Covid has not helped. Yet there are signs of constructive engagements and actions on a few fronts. It is going to be a long journey and the challenges in making auto-sector supply chain better for the workers not insignificant. SII will continue pursuing all these stakeholders until appropriate actions are taken and the accidents in the Indian auto-sector come down, year after year.

SII expects its focus on auto-sector safety to have an indirect impact on working conditions in factories and other businesses other than the auto sector, too, as the government takes steps in line with recommendations here and the impact of OEMs' actions are felt across Indian manufacturing.

SII's ESIC advocacy is sector-agnostic. Any improvements made in ESIC services and processes for the workers will be felt across the country irrespective of the sector.

9 Annexure

CHAPTER	FIGURE	DATA DESCRIPTION
1.1	1	SII Impact Charts
1.2	2	Period — Number of workers met and assisted by SII

	Auto	Other Sectors	Total
Dec 2016 – Mar 2019	1369 (76%)	431 (24%)	1800
Apr 2019 – Mar 2020	504 (86%)	83 (14%)	587
Apr 2020 – Mar 2021	442 (85%)	77 (15%)	519
Apr 2021 – Sep 2021	269 (74%)	93 (26%)	362
Total	2584 (79%)	684 (21%)	3268

Source: Paramarsh data + small corrections for 2020-21 (and previous CRUSHED reports for 2016-20)

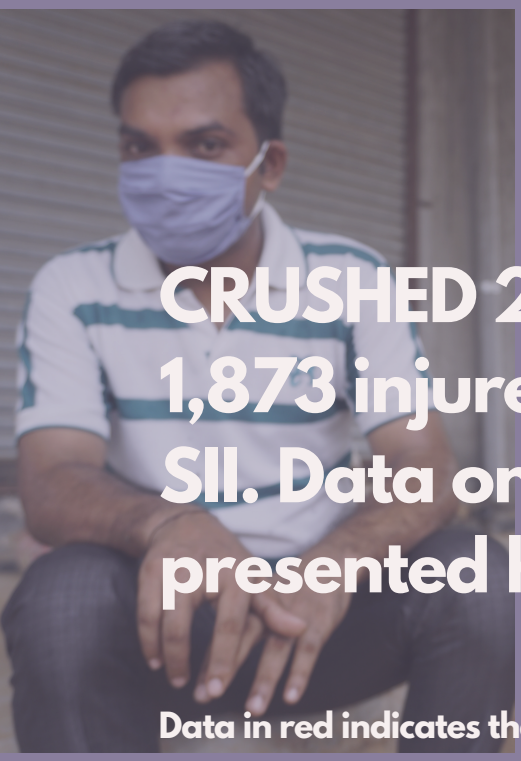
2.1	4	Source: Paramarsh data for 2016-2021
2.2	5	Data for number of fingers for those auto sector workers who lost fingers, and accident reported between April 2020 - September 2021. For power press, the period used is 2016-2021 to be consistent with Chapter 5.4.

Detailed numbers (Paramarsh Data)

Period	Machines	Avg Fingers Lost
Apr 2020 - Sep 2021	All	1.97
Apr 2020 - Sep 2021	Power Press	2.09
2016-2021	All	1.88
2016-2021	Power Press	2.04

2.2	6 & 7	Sources: 2019-20 data for Gurugram from previous report. Approximate, as that also had a small (<10%) numbers for Faridabad, 2020-21 data from Paramarsh
2.3	8 & 9	Source: Pre-2020 data from previous reports, with the approximation as a small number (<10%) come from Faridabad, 2020-21 data from Paramarsh
2.4	10	Source: 2016-2021 Paramarsh data, with outlier of 20,000+ salary (2.3% with 49 observations removed), final N= 2088
2.4	11	Source: 2016-2021 Paramarsh data, with outlier of postgraduate education (0.3% with 6 observations removed), final N= 1780
2.5	12	Source: Paramarsh page 2 data, which is a more detailed questionnaire from fewer (364) workers to understand safety working conditions, N = 327
3.1	13	Sources: Ministry of Heavy Industries and Public Enterprises (Annual Reports 2019-20 and 2020-21), SIAM Annual Reports (2019-20 and 2016-17)
3.1	14	SII customer survey, N = 130
3.2	16	Source: Auto sector manufacturer locations from SIAM data
3.3	17	Source and methodology: 2016-2019 data from previous reports; for 2020-21 analysis, two approximations are used - 1) 16% cases come in the next two years and 2) 14% dip in sales/production from previous year 2019-20 (which was already 18% down from 2018-19), source from https://indianexpress.com/article/business/passenger-vehicle-sales-in-india-decline-by-over-2-per-cent-in-2020-21-siam-7270113/. For further details, contact the SII team.

CHAPTER	FIGURE	DATA DESCRIPTION
3.4		Source: Injured persons' surveys in Rudrapur and Neemrana, N = 54
3.5	18	Source: Paramarsh data for 2020-21
3.5	19	Source and methodology: Same as Figure 17, but OEM-wise analysis
3.6	21	Source: 2019-20 data from CRUSHED2020 (again with the approxmation of <10% Faridabad ignored); 2020-21 data from Paramarsh
3.6	22	Source: Paramarsh data for entire 2020-21 for top 5 other OEMs in each location
3.6	23	Source: Injured persons' surveys in Rudrapur and Neemrana, N = 54
3.7	24	ACMA members identified from worker files
4.1	25	Source: DGFASLI Standard Reference Notes (https://dgfasli.gov.in/en/others/standard-reference-note)
4.2	26	Source: DGFASLI Standard Reference Notes (https://dgfasli.gov.in/en/others/standard-reference-note)
4.3	27	Source: DGFASLI Standard Reference Notes (https://dgfasli.gov.in/en/others/standard-reference-note)
5.1	30	Sources: 2016-2019 data from previous reports, 2020-21 data from Paramarsh
5.2	31	Source: Paramarsh data for 2020-21
5.3	32	Source: Paramarsh data for 2020-21, N=2135
5.3	33	Source: Paramarsh data for 2020-21, N=1363
5.4	34	Source: Paramarsh data for 2020-21, N=1010 (minus 4 outliers with age>61)
5.5	35	Source: Paramarsh page 2 data, which is a more detailed questionnaire from fewer (364) workers to understand safety working conditions, N = 327
5.6	36	Source: Paramarsh page 2 data, which is a more detailed questionnaire from fewer (364) workers to understand safety working conditions, N = 202
5.6	37	Source: Paramarsh page 2 data, which is a more detailed questionnaire from fewer (364) workers to understand safety working conditions, N = 185
5.7	38	Source: Paramarsh page 2 data, which is a more detailed questionnaire from fewer (364) workers to understand safety working conditions, N = 330
5.7	39	Source: Paramarsh page 2 data, which is a more detailed questionnaire from fewer (364) workers to understand safety working conditions, very small sample of about 20 (and pie chart only for representation). The question is asked separately, and the respective percentages are the percentage of 'yes' responses
6	42	SII Impact charts



CRUSHED 2020 contained data on 1,873 injured workers supported by SII. Data on workers assisted since is presented here.

Data in red indicates that the worker lost a body part.

Sl. NO.	AGE (years)	INJURED BODY PART	NO. FINGERS LOST/ DAMAGED	TYPE OF INJURY	MACHINE	OEM (as identified by worker)
1	21-30	Finger	One	Injured	Other	Hero
2	21-30	Finger	Two	Lost	Power Press	Honda, Maruti
3	31-40	Other	One	Injured	Road Accident	Other
4	Below 20	Finger	One	Lost	Power Press	Maruti
5	21-30	Forearm	One	Fractured	Other	Honda, Maruti
6	21-30	Finger	Three	Lost	Power Press	Honda, Maruti
7	21-30	Finger	One	Injured	Power Press	Hero
8	21-30	Finger	One	Injured	Other	Hero, Honda
9	21-30	Other	One	Lost	Power Press	Maruti, Other
10	21-30	Finger	Two	Lost	Power Press	
11	21-30	Finger	Two	Lost	Power Press	Other
12	41-50	Forearm	One	Lost	Other	Hero, Honda, Maruti
13	21-30	Forearm	One	Lost	Power Press	Hero, Honda, Maruti
14	41-50	Lower Leg	One	Fractured	Other	Honda
15	Below 20	Finger	Four	Lost	Other	
16	21-30	Lower Leg	One	Fractured	Road Accident	Hero, Honda, Maruti, Other
17	41-50	Finger	One	Lost	Power Press	Hero, Honda, Maruti
18	Below 20	Finger	One	Injured	Other	Honda, Other
19	31-40	Forearm	One	Fractured	Road Accident	Hero
20	41-50	Forearm	One	Fractured	Road Accident	Hero
21	41-50	Lower Leg	One	Fractured	Other	Hero
22	31-40	Finger	One	Lost	Power Press	Maruti
23	41-50	Forearm	One	Fractured	Road Accident	Hero, Honda, Maruti, Other
24	21-30	Forearm	One	Fractured	Road Accident	Maruti
25	21-30	Finger	One	Lost	Other	Honda, Maruti, Other
26	21-30	Finger	One	Lost	Power Press	Honda, Maruti, Other
27	31-40	Finger	One	Lost	Power Press	Hero, Honda, Maruti
28	41-50	Finger	One	Lost	Power Press	Honda, Maruti
29	21-30	Finger	One	Lost	Power Press	Hero, Honda
30	31-40	Finger	One	Lost	Power Press	Honda, Maruti
31	21-30	Finger	One	Lost	Power Press	Hero
32	21-30	Forearm	One	Lost	Other	Hero
33	21-30	Finger	Four	Lost	Power Press	Hero, Honda
34	31-40	Finger	Three	Lost	Other	Hero, Honda, Maruti, Other
35	Below 20	Finger	Two	Lost	Other	
36	21-30	Finger	One	Lost	Power Press	Maruti
37	41-50	Finger	Two	Lost	Power Press	Maruti
38	41-50	Forearm	One	Fractured	Road Accident	Hero, Honda, Maruti
39	21-30	Finger	One	Lost	Power Press	Maruti
40	21-30	Finger	Two	Lost	Other	Other
41	Below 20	Lower Leg	One	Injured	Power Press	Maruti
42	31-40	Lower Leg	One	Lost	Other	Maruti
43	31-40	Forearm	One	Injured	Moulding Machine	Honda, Other
44	21-30	Forearm	One	Lost	Power Press	Honda
45	21-30	Finger	One	Injured	Other	Hero, Honda, Maruti, Other
46	21-30	Finger	One	Lost	Other	Hero
47	Below 20	Finger	Four	Lost	Power Press	Maruti, Other
48	41-50	Lower Leg	One	Fractured	Other	Maruti, Other
49	41-50	Finger	Two	Lost	Power Press	Hero
50	31-40	Finger	One	Lost	Power Press	Other
51	41-50	Finger	One	Lost	Other	Hero, Honda, Maruti, Other
52	31-40	Finger	One	Lost	Power Press	Maruti
53	21-30	Finger	One	Injured	Other	Maruti
54	41-50	Lower Leg	One	Injured	Road Accident	Honda
55	21-30	Finger	Three	Lost	Power Press	Maruti
56	21-30	Finger	Three	Lost	Power Press	Honda, Maruti
57	21-30	Finger	One	Injured	Other	Maruti, Other
58	21-30	Forearm	One	Injured	Moulding Machine	Hero, Honda, Maruti, Other
59	21-30	Finger	One	Injured	Power Press	Honda
60	31-40	Forearm	One	Fractured	Road Accident	Other

Sl. NO.	AGE (years)	INJURED BODY PART	NO. FINGERS LOST/ DAMAGED	TYPE OF INJURY	MACHINE	OEM (as identified by worker)
61	21-30	Other	One	Fractured	Road Accident	Hero, Honda, Maruti
62	21-30	Finger	Two	Lost	Other	Honda, Maruti
63	31-40	Forearm	One	Other	Other	Honda, Maruti
64	21-30	Finger	One	Lost	Other	Maruti
65	41-50	Forearm	One	Other	Other	Maruti
66	21-30	Finger	Two	Injured	Power Press	Other
67	Below 20	Finger	Two	Lost	Power Press	Hero, Honda, Maruti
68	21-30	Finger	One	Lost	Power Press	Hero, Honda
69	41-50	Finger	Two	Lost	Power Press	Honda, Maruti
70	31-40	Forearm	One	Fractured	Other	Maruti
71	21-30	Finger	Two	Lost	Other	Hero, Honda, Maruti
72	41-50	Lower Leg	One	Fractured	Other	Maruti
73	21-30	Finger	Two	Lost	Other	Hero
74	41-50	Other	One	Lost	Power Press	Maruti
75	41-50	Forearm	One	Fractured	Other	Honda, Maruti
76	31-40	Forearm	One	Fractured	Road Accident	
77	41-50	Finger	One	Lost	Power Press	Hero, Honda, Maruti
78	31-40	Finger	One	Lost	Power Press	Honda, Maruti
79	31-40	Forearm	One	Lost	Power Press	Maruti
80	21-30	Finger	Two	Lost	Power Press	Maruti
81	21-30	Forearm	One	Lost	Other	Other
82	41-50	Finger	Three	Lost	Power Press	Maruti
83	31-40	Finger	One	Lost	Power Press	Maruti
84	31-40	Finger	Two	Lost	Power Press	Honda
85	21-30	Finger	One	Lost	Power Press	Maruti
86	41-50	Forearm	One	Fractured	Other	
87	21-30	Finger	Four	Lost	Power Press	Maruti
88	31-40	Finger	One	Lost	Power Press	Hero, Honda, Maruti
89	21-30	Finger	Two	Lost	Power Press	Honda, Other
90	21-30	Finger	One	Injured	Other	Maruti
91	41-50	Finger	One	Lost	Power Press	Maruti
92	21-30	Finger	Two	Injured	Power Press	Maruti
93	41-50	Finger	Two	Lost	Power Press	Maruti
94	21-30	Finger	Two	Lost	Power Press	Honda, Maruti, Other
95	21-30	Finger	One	Lost	Other	Hero, Honda, Maruti
96	21-30	Finger	Two	Lost	Power Press	Maruti
97	31-40	Finger	One	Injured	Other	
98	21-30	Finger	Two	Injured	Other	Other
99	21-30	Forearm	One	Injured	Other	Honda, Maruti
100	51-60	Other	One	Lost	Power Press	Maruti
101	21-30	Finger	Three	Lost	Power Press	Hero, Honda, Maruti
102	41-50	Forearm	One	Fractured	Other	Hero, Honda, Maruti, Other
103	31-40	Finger	One	Lost	Moulding Machine	Hero, Maruti
104	31-40	Finger	Two	Lost	Power Press	Hero, Honda, Maruti
105	41-50	Lower Leg	One	Fractured	Road Accident	Maruti
106	31-40	Finger	One	Lost	Other	Honda, Other
107	41-50	Finger	Four	Lost	Power Press	Hero
108	21-30	Lower Leg	One	Fractured	Other	Maruti
109	21-30	Finger	One	Lost	Power Press	Maruti
110	21-30	Forearm	One	Fractured	Other	Maruti
111	21-30	Finger	Three	Lost	Other	Hero, Other
112	31-40	Finger	Two	Fractured	Other	Hero, Honda, Maruti
113	31-40	Finger	Three	Lost	Power Press	Maruti
114	41-50	Finger	Four	Lost	Power Press	Hero, Honda, Maruti
115	31-40	Finger	Four	Lost	Power Press	Maruti
116	41-50	Forearm	One	Fractured	Other	Maruti
117	21-30	Finger	Two	Lost	Other	
118	21-30	Forearm	One	Injured	Other	Maruti
119	21-30	Finger	One	Lost	Other	Hero, Honda, Other
120	21-30	Forearm	One	Injured	Other	Maruti, Other

Sl. NO.	AGE (years)	INJURED BODY PART	NO. FINGERS LOST/ DAMAGED	TYPE OF INJURY	MACHINE	OEM (as identified by worker)
121	31-40	Forearm	One	Fractured	Road Accident	Hero, Honda, Maruti
122	21-30	Finger	One	Injured	Other	Maruti
123	41-50	Finger	One	Lost	Other	Hero
124	21-30	Finger	One	Lost	Moulding Machine	Hero, Honda, Maruti
125	21-30	Finger	One	Lost	Power Press	Maruti
126	21-30	Finger	One	Injured	Other	Hero, Maruti
127	41-50	Finger	One	Injured	Power Press	Hero, Honda, Maruti
128	21-30	Finger	One	Lost	Power Press	Hero, Honda
129	21-30	Finger	One	Lost	Other	Maruti
130	51-60	Finger	Two	Lost	Power Press	Maruti, Other
131	31-40	Finger	Two	Lost	Power Press	Other
132	21-30	Finger	Two	Lost	Power Press	Honda
133	51-60	Finger	Two	Lost	Power Press	Maruti
134	31-40	Finger	One	Fractured	Power Press	Other
135	31-40	Finger	Three	Lost	Power Press	Maruti
136	21-30	Finger	One	Lost	Power Press	Honda, Other
137	31-40	Finger	One	Injured		Other
138	Below 20	Other	One	Injured	Moulding Machine	Hero
139	21-30	Finger	One	Injured	Power Press	Maruti
140	21-30	Finger	One	Lost	Power Press	Maruti, Other
141	21-30	Finger	Two	Lost	Other	Maruti, Other
142	21-30	Finger	Two	Lost	Power Press	Maruti, Other
143	21-30	Finger	Three	Lost	Moulding Machine	
144	21-30	Finger	Two	Lost	Power Press	Other
145	21-30	Finger	Four	Lost	Power Press	Hero, Honda, Maruti
146	Below 20	Finger	Four	Lost	Power Press	
147	21-30	Finger	One	Injured	Other	Honda, Other
148	41-50	Forearm	One	Fractured		Other
149	21-30	Finger	Four	Lost	Power Press	Other
150	21-30	Finger	Two	Lost	Power Press	Maruti
151	21-30	Finger	Three	Lost	Power Press	Maruti
152	21-30	Finger	Five	Lost	Other	
153	21-30	Finger	Four	Lost	Power Press	Maruti
154	41-50	Finger	Four	Lost	Other	
155	41-50	Finger	Three	Lost	Power Press	Hero, Other
156	Below 20	Finger	One	Injured		Honda, Maruti
157	Below 20	Finger	One	Lost	Other	Honda, Maruti
158	31-40	Finger	Four	Lost	Power Press	
159	41-50	Finger	Five	Lost	Power Press	
160	51-60	Lower Leg	One	Injured	Other	Maruti, Other
161	31-40	Finger	Two	Fractured	Road Accident	Honda, Maruti
162	21-30	Lower Leg	One	Injured	Other	Honda, Maruti
163	21-30	Finger	One	Injured	Power Press	Maruti
164	21-30	Finger	One	Injured	Power Press	Honda, Maruti
165	Over 61	Finger	Two	Lost	Power Press	
166	41-50	Finger	Three	Other	Power Press	Honda
167	21-30	Finger	One	Injured	Power Press	Hero
168	21-30	Finger	Two	Lost	Power Press	Hero, Honda
169	21-30	Other	One	Lost	Power Press	Maruti, Other
170	21-30	Finger	Two	Lost	Power Press	Honda, Maruti
171	21-30	Finger	One	Lost	Power Press	Hero, Honda
172	Below 20	Finger	One	Lost	Power Press	Other
173	21-30	Finger	One	Lost	Power Press	Maruti
174	51-60	Finger	One	Lost	Power Press	
175	21-30	Finger	Two	Lost	Power Press	
176	Below 20	Finger	Two	Lost	Power Press	Honda, Other
177	31-40	Finger	Three	Lost	Power Press	
178	21-30	Forearm	One	Injured	Other	
179	Below 20	Finger	Two	Injured	Power Press	Other
180	41-50	Finger	One	Lost	Power Press	Maruti

Sl. NO.	AGE (years)	INJURED BODY PART	NO. FINGERS LOST/ DAMAGED	TYPE OF INJURY	MACHINE	OEM (as identified by worker)
181	21-30	Finger	Two	Lost	Power Press	Maruti
182	21-30	Finger	Four	Lost	Power Press	Hero, Honda, Other
183	21-30	Finger	One	Injured	Power Press	Maruti
184	31-40	Finger	Four	Lost	Power Press	Hero, Honda
185	Below 20	Finger	One	Lost	Power Press	
186	41-50	Other	One	Injured	Other	Other
187	Below 20	Finger	One	Lost	Power Press	
188	21-30	Finger	Two	Lost	Power Press	Other
189	21-30	Finger	One	Injured	Power Press	Other
190	21-30	Finger	Two	Lost	Other	Honda, Maruti
191	31-40	Finger	Two	Lost	Other	Hero, Honda
192	31-40	Finger	One	Lost	Other	Hero, Honda
193	21-30	Finger	Three	Lost	Power Press	Hero, Maruti
194	Below 20	Finger	Four	Lost	Other	
195	31-40	Finger	One	Lost	Other	Other
196	21-30	Finger	One	Lost	Power Press	
197	31-40	Finger	Three	Lost	Other	Other
198	41-50	Other	One	Injured	Other	Maruti, Other
199	21-30	Finger	Two	Injured	Power Press	Other
200	21-30	Finger	One	Lost	Power Press	Hero, Honda
201	31-40	Finger	Two	Lost	Power Press	Hero, Honda, Maruti, Other
202	21-30	Finger	Two	Lost	Power Press	Hero, Honda, Maruti
203	21-30	Finger	One	Lost	Other	Hero, Honda
204	31-40	Other	One	Fractured	Other	Maruti
205	51-60	Finger	Four	Lost	Power Press	Maruti, Other
206	31-40	Finger	Two	Lost	Power Press	Hero, Honda, Maruti, Other
207	31-40	Finger	One	Lost	Power Press	Hero, Honda, Maruti
208	Below 20	Other	One	Injured	Other	Maruti
209	Below 20	Other	One	Lost	Power Press	Hero, Honda, Maruti, Other
210	31-40	Finger	Two	Lost	Power Press	Other
211	31-40	Finger	Two	Lost	Power Press	Hero, Honda, Maruti, Other
212	31-40	Finger	Two	Injured	Other	Hero, Honda
213	Below 20	Other	One	Fractured	Other	Honda
214	41-50	Finger	One	Injured	Power Press	Hero, Honda, Maruti
215	41-50	Finger	One	Lost	Other	Hero, Honda, Maruti
216	21-30	Finger	Two	Lost	Power Press	Other
217	51-60	Finger	Two	Lost	Power Press	Other
218	31-40	Other	One	Injured	Other	Maruti, Other
219	41-50	Finger	Two	Lost	Power Press	Hero, Honda, Maruti, Other
220	31-40	Finger	One	Lost	Power Press	Maruti
221	21-30	Finger	One	Lost	Power Press	Hero, Maruti
222	21-30	Finger	One	Lost	Power Press	Hero, Honda, Maruti, Other
223	Below 20	Other	One	Injured	Other	Hero, Honda, Maruti
224	51-60	Finger	Two	Lost	Power Press	Maruti
225	31-40	Finger	Two	Lost	Power Press	Hero, Honda, Maruti
226	21-30	Forearm	One	Fractured	Other	Hero, Honda, Maruti
227	21-30	Finger	One	Lost	Power Press	Hero, Honda, Maruti, Other
228	31-40	Finger	Two	Lost	Power Press	Hero, Honda
229	31-40	Finger	Four	Injured	Power Press	Hero, Maruti
230	31-40	Other	One	Injured	Other	Other
231	31-40	Finger	Two	Lost	Power Press	Hero
232	21-30	Finger	Two	Other	Power Press	Hero, Honda, Other
233	21-30	Finger	Four	Lost	Power Press	Honda, Maruti
234	21-30	Finger	Four		Power Press	Maruti
235	21-30	Finger	One	Lost	Power Press	Maruti
236	21-30	Finger	Five	Lost	Power Press	Maruti
237	21-30	Finger	Three	Lost	Power Press	Maruti
238	Below 20	Finger	Four	Lost	Power Press	Honda
239	21-30	Finger	One	Lost	Other	Other
240	Below 20	Finger	Three	Lost	Power Press	Maruti

Sl. NO.	AGE (years)	INJURED BODY PART	NO. FINGERS LOST/ DAMAGED	TYPE OF INJURY	MACHINE	OEM (as identified by worker)
241	Below 20	Finger	One	Lost	Power Press	
242	31-40	Finger	Two	Lost	Power Press	Maruti
243	41-50	Finger	Two	Lost	Other	Maruti
244	21-30	Finger	Three	Lost	Power Press	
245	31-40	Finger	Two	Lost	Power Press	Other
246	Below 20	Finger	One	Lost	Other	Maruti
247	41-50	Finger	One	Lost	Power Press	Other
248	41-50	Finger	Three	Lost	Power Press	Other
249	Below 20	Finger	One	Lost	Other	Maruti
250	21-30	Finger	One	Injured	Other	Other
251	21-30	Finger	One	Lost	Power Press	
252	Below 20	Forearm	One	Injured	Other	Maruti
253	41-50	Forearm	One	Injured	Other	Maruti
254	21-30	Finger	Four	Lost	Power Press	Maruti
255	Below 20	Finger	Three	Lost	Power Press	Maruti
256	21-30	Finger	Two	Lost	Power Press	Maruti
257	Below 20	Finger	One	Lost	Moulding Machine	Honda, Other
258	51-60	Forearm	One	Injured	Other	Hero, Honda, Maruti
259	41-50	Finger	Three	Lost	Power Press	Maruti
260	31-40	Finger	One	Lost	Power Press	Hero, Honda
261	31-40	Finger	Two	Lost	Power Press	Hero, Honda
262	31-40	Finger	Three	Lost	Power Press	Maruti
263	21-30	Finger	Two	Lost	Power Press	Hero, Honda
264	21-30	Forearm	One	Injured	Power Press	Hero
265	21-30	Forearm	One	Fractured	Road Accident	Other
266	Below 20	Finger	Three	Lost	Power Press	Other
267	51-60	Finger	Three	Lost	Power Press	Maruti
268	21-30	Other	One	Lost	Power Press	Honda, Maruti
269	21-30	Other	One	Lost	Power Press	Maruti
270	21-30	Finger	Two	Lost	Power Press	Other
271	21-30	Finger	Three	Lost	Power Press	
272	41-50	Finger	One	Lost	Other	
273	41-50	Finger	Two	Lost	Power Press	Maruti
274	41-50	Finger	Four	Lost	Power Press	Hero, Honda
275	Below 20	Finger	One	Lost	Power Press	Hero, Honda
276	21-30	Finger	Two	Lost	Power Press	Maruti
277	21-30	Finger	Two	Lost	Power Press	Maruti
278	31-40	Finger	One	Lost	Power Press	Maruti
279	31-40	Finger	Three	Other	Power Press	Hero
280	31-40	Forearm	One	Lost	Power Press	Maruti
281	31-40	Finger	Two	Other	Power Press	
282	21-30	Finger	Two	Lost	Power Press	Maruti
283	31-40	Forearm	One	Fractured	Other	Maruti
284	21-30	Finger	Three	Lost	Power Press	Hero
285	31-40	Forearm	Five	Lost	Power Press	Maruti
286	21-30	Finger	Two	Lost	Power Press	Hero, Honda, Other
287	51-60	Finger	Five	Lost	Power Press	Maruti
288	41-50	Finger	Two	Lost	Other	Maruti, Other
289	41-50	Finger	Four	Lost	Other	Other
290	21-30	Finger	One	Lost	Other	Other
291	21-30	Finger	Three	Lost	Power Press	Hero, Honda
292	21-30	Finger	Two	Lost	Power Press	Maruti
293	21-30	Finger	Two	Lost	Power Press	Maruti
294	31-40	Finger	Three	Lost	Power Press	Maruti
295	21-30	Finger	Four	Lost	Power Press	Other
296	31-40	Forearm	One	Fractured	Road Accident	
297	21-30	Finger	Four	Lost	Power Press	Maruti
298	21-30	Other	One	Other	Moulding Machine	Hero, Honda
299	Below 20	Finger	One	Injured	Other	Maruti
300	31-40	Finger	One	Lost	Power Press	Hero, Honda, Maruti

Sl. NO.	AGE (years)	INJURED BODY PART	NO. FINGERS LOST/ DAMAGED	TYPE OF INJURY	MACHINE	OEM (as identified by worker)
301	21-30	Finger	Two	Lost	Power Press	Maruti
302	31-40	Finger	Three	Lost	Power Press	Honda, Maruti
303	51-60	Finger	One	Injured	Other	Maruti, Other
304	51-60	Finger	Three	Lost	Power Press	Maruti, Other
305	41-50	Forearm	One	Other	Other	Maruti, Other
306	51-60	Finger	Three	Lost	Power Press	Other
307	31-40	Finger	Two	Lost	Power Press	Other
308	31-40	Finger	One	Lost	Power Press	Maruti, Other
309	41-50	Finger	Three	Lost	Power Press	Maruti, Other
310	31-40	Finger	Four	Lost	Power Press	Maruti
311	Below 20	Finger	One	Lost	Other	Maruti, Other
312	21-30	Forearm	One	Injured	Other	Honda, Maruti
313	21-30	Finger	Three	Lost	Power Press	Hero, Maruti
314	21-30	Finger	Four	Lost	Power Press	Maruti, Other
315	21-30	Finger	Three	Lost	Power Press	Honda
316	21-30	Finger	Three	Lost	Power Press	Maruti, Other
317	Below 20	Finger	Two	Lost	Power Press	Maruti, Other
318	21-30	Finger	One	Lost	Power Press	Other
319	41-50	Finger	One	Lost	Power Press	Hero
320	21-30	Finger	Four	Lost	Power Press	Maruti, Other
321	21-30	Finger	Three	Lost	Power Press	Maruti
322	31-40	Finger	Three	Lost	Power Press	Other
323	21-30	Finger	One	Lost	Power Press	Maruti, Other
324	31-40	Finger	One	Injured	Other	Maruti
325	21-30	Finger	Three	Lost	Power Press	Maruti
326	21-30	Finger	One	Lost	Power Press	Honda, Maruti
327	31-40	Finger	One	Lost	Power Press	Honda, Maruti
328	51-60	Forearm	One	Fractured	Road Accident	Hero, Honda
329	21-30	Finger	One	Lost	Power Press	Maruti
330	31-40	Finger	One	Lost	Power Press	Maruti
331	21-30	Finger	One	Injured	Other	Hero, Honda
332	31-40	Finger	One	Lost	Power Press	Other
333	41-50	Other	One	Lost	Other	Maruti
334	21-30	Finger	One	Lost	Power Press	Hero, Honda
335	21-30	Finger	One	Other	Other	Other
336	31-40	Finger	Three	Lost	Power Press	Maruti
337	41-50	Finger	One	Lost	Other	Maruti
338	41-50	Finger	Three	Lost	Power Press	Maruti
339	31-40	Finger	One	Lost	Other	Other
340	21-30	Finger	Four	Fractured	Power Press	Other
341	41-50	Other	One	Injured	Power Press	Hero, Honda
342	41-50	Other	One	Fractured	Power Press	Hero, Honda, Maruti, Other
343	41-50	Finger	Two	Lost	Power Press	
344	41-50	Finger	One	Lost	Power Press	Maruti
345	51-60	Other	One	Lost	Other	Hero, Honda
346	41-50	Other	One	Fractured	Other	Hero, Honda, Maruti, Other
347	21-30	Finger	Four	Lost	Power Press	Hero, Honda
348	31-40	Finger	Three	Lost	Power Press	Maruti
349	41-50	Finger	Four	Lost	Power Press	Maruti
350	21-30	Finger	Two	Lost	Power Press	Maruti
351	41-50	Other	One	Fractured	Other	
352	21-30	Finger	One	Lost	Power Press	Hero, Honda
353	31-40	Finger	Two	Lost	Power Press	Maruti
354	21-30	Other	One	Fractured	Power Press	Maruti
355	41-50	Finger	Two	Injured	Power Press	Maruti
356	41-50	Finger	One	Lost	Power Press	Maruti
357	31-40	Finger	One	Lost	Power Press	Hero, Honda
358	41-50	Finger	One	Lost	Power Press	Other
359	Below 20	Finger	One	Lost	Other	Other
360	31-40	Forearm	One	Injured	Other	Hero, Honda, Other

Sl. NO.	AGE (years)	INJURED BODY PART	NO. FINGERS LOST/ DAMAGED	TYPE OF INJURY	MACHINE	OEM (as identified by worker)
361	Below 20	Finger	Four	Lost	Power Press	Hero, Honda
362	31-40	Finger	One	Lost	Power Press	Hero, Honda, Maruti
363	Below 20	Finger	Two	Lost	Power Press	Hero, Honda
364	41-50	Finger	Three	Lost	Power Press	Maruti
365	21-30	Finger	Four	Lost	Power Press	Hero, Honda
366	21-30	Finger	Two	Lost	Power Press	Hero
367	31-40	Finger	One	Lost	Power Press	Maruti
368	41-50	Finger	Four	Lost	Power Press	Maruti
369	21-30	Finger	Four	Lost	Power Press	Hero, Honda
370	31-40	Finger	Three	Lost	Power Press	Maruti
371	21-30	Finger	Four	Lost	Power Press	Other
372	21-30	Finger	Three	Lost	Power Press	Other
373	Below 20	Finger	Four	Lost	Power Press	Hero, Honda, Maruti
374	Below 20	Other	One	Other	Power Press	Maruti
375	31-40	Other	One	Fractured	Power Press	Maruti
376	21-30	Finger	Two	Lost	Power Press	Hero, Honda
377	21-30	Finger	One	Lost	Power Press	Other
378	31-40	Finger	Two	Lost	Power Press	Other
379	41-50	Finger	One	Lost	Power Press	Hero, Honda
380	31-40	Finger	Two	Lost	Power Press	Hero, Honda
381	21-30	Other	One	Fractured	Power Press	Hero, Honda
382	21-30	Finger	One	Lost	Power Press	Hero, Honda
383	51-60	Forearm	One	Fractured	Road Accident	Other
384	21-30	Finger	Five	Lost	Moulding Machine	Other
385	41-50	Finger	Three	Lost	Power Press	Hero, Honda
386	51-60	Finger	Four	Lost	Power Press	Maruti
387	21-30	Finger	Two	Injured	Other	Hero, Honda
388	31-40	Finger	Two	Injured	Other	Maruti
389	51-60	Finger	Two	Lost	Power Press	Other
390	41-50	Finger	Two	Lost	Power Press	Other
391	41-50	Finger	Two	Lost	Power Press	Maruti
392	21-30	Finger	One	Lost	Power Press	Other
393	41-50	Forearm	One	Other	Power Press	Hero, Honda
394	41-50	Forearm	One	Fractured	Other	Other
395	41-50	Finger	One	Lost	Other	Other
396	21-30	Finger	Two	Lost	Power Press	Maruti
397	31-40	Forearm	One	Fractured	Other	Other
398	41-50	Forearm	One	Injured	Power Press	Maruti
399	31-40	Finger	One	Lost	Power Press	Hero
400	Below 20	Finger	Three	Lost	Power Press	Other
401	21-30	Finger	One	Lost	Power Press	Other
402	41-50	Finger	Three	Injured	Other	Maruti, Other
403	21-30	Finger	Two	Lost		Other
404	31-40	Finger	Three	Lost	Power Press	Other
405	31-40	Finger	Four	Lost	Power Press	Other
406	21-30	Finger	Two	Lost	Power Press	Other
407	21-30	Finger	Two	Lost	Power Press	Other
408	Below 20	Finger	Three	Lost	Power Press	Other
409	31-40	Finger	Two	Lost	Power Press	Hero, Honda, Maruti, Other
410	21-30	Finger	One	Lost	Power Press	Hero, Honda, Maruti, Other
411	21-30	Finger	Three	Lost	Power Press	Honda, Maruti, Other
412		Forearm		Fractured		Other
413	21-30	Finger	One	Injured	Other	Other
414	41-50	Other		Fractured		Hero, Honda, Maruti, Other
415	21-30	Finger	Two	Injured	Power Press	Other
416	21-30	Finger	Two	Lost	Power Press	Other
417	21-30	Finger	One	Lost	Power Press	Hero, Honda, Maruti
418	41-50	Finger	One	Injured	Power Press	Other
419	41-50	Finger	Two	Lost	Power Press	Other
420	31-40	Finger	One	Fractured	Moulding Machine	Maruti, Other

Sl. NO.	AGE (years)	INJURED BODY PART	NO. FINGERS LOST/ DAMAGED	TYPE OF INJURY	MACHINE	OEM (as identified by worker)
421	21-30	Forearm		Injured	Other	
422	41-50	Lower Leg		Fractured	Other	Other
423	21-30	Other		Injured	Power Press	Maruti
424	31-40	Finger	Three	Lost	Power Press	Honda, Maruti
425	21-30	Finger	Three	Lost	Power Press	Maruti
426	31-40	Finger		Lost	Power Press	Other
427	21-30	Finger	Four	Lost	Power Press	
428	21-30	Finger	Four	Lost	Power Press	
429	21-30	Finger	Three	Lost	Power Press	
430	Below 20	Finger	Two	Lost	Power Press	Hero, Honda, Maruti, Other
431	41-50	Other		Lost	Power Press	Other
432	21-30	Finger	Two	Injured	Power Press	Other
433	Below 20	Finger	Three	Injured	Other	Honda, Other
434	41-50	Finger	One	Lost	Power Press	
435	41-50	Other		Other	Moulding Machine	Hero, Honda, Maruti, Other
436	41-50	Finger	One	Injured	Power Press	Maruti
437	51-60			Other		Other
438	31-40	Finger	Three	Injured	Power Press	Other
439	21-30	Finger	One	Lost		Honda, Maruti
440	41-50	Finger	Two	Lost	Power Press	Hero, Honda, Maruti
441	21-30	Finger	Four	Lost	Power Press	Other
442	21-30	Finger	Four	Lost	Power Press	Honda, Maruti, Other
443	31-40	Finger	One	Lost	Power Press	Other
444	31-40	Finger	Three	Other	Power Press	Hero, Honda, Maruti, Other
445	31-40	Finger	One	Injured	Power Press	Hero, Honda, Maruti, Other
446	21-30	Lower Leg		Injured		Honda, Other
447	21-30	Finger	Four	Injured	Other	Honda, Maruti, Other
448	31-40	Finger	Two	Lost	Power Press	Maruti, Other
449	21-30	Finger	One	Lost	Power Press	Maruti, Other
450	Below 20	Finger	One	Lost	Power Press	Honda
451	31-40	Finger	Two	Lost	Power Press	Maruti
452	21-30	Finger	Two	Other	Power Press	Honda, Other
453	41-50	Finger	One	Injured	Power Press	Other
454	31-40	Finger	Two	Injured	Power Press	Hero, Honda, Maruti, Other
455	31-40	Finger	One	Injured	Power Press	Hero, Honda, Maruti, Other
456	Below 20	Other		Lost	Power Press	Other
457	Below 20	Finger	One	Lost	Other	Hero, Honda, Maruti, Other
458	31-40	Forearm		Injured		Honda, Maruti, Other
459	21-30	Finger	Two	Lost	Power Press	Hero, Honda
460	21-30	Finger	One	Fractured	Other	Other
461	21-30	Finger	One	Injured	Power Press	Maruti, Other
462	41-50	Finger	One	Lost	Power Press	Hero
463	21-30	Other		Other		Hero, Honda, Maruti, Other
464	31-40	Other		Injured	Power Press	Other
465	31-40	Finger	Two	Lost	Power Press	Hero, Honda, Maruti, Other
466	21-30	Finger	One	Injured	Other	Maruti
467	51-60	Forearm	One	Lost	Power Press	Hero, Honda
468	21-30	Finger	One	Lost	Power Press	Hero, Honda, Maruti
469	31-40	Finger	Two	Lost	Power Press	Maruti
470	41-50	Forearm	One	Lost	Moulding Machine	Maruti
471	31-40	Other	One	Lost	Power Press	Maruti
472	31-40	Finger	One	Lost	Power Press	Hero, Honda, Maruti
473	31-40	Finger	Four	Lost	Power Press	Maruti
474	31-40	Finger	Four	Lost	Power Press	Hero, Honda, Maruti
475	41-50	Finger	Three	Lost	Power Press	Maruti
476	21-30	Finger	Three	Lost	Power Press	Hero, Honda
477	21-30	Finger	Three	Lost	Power Press	Honda, Maruti
478	21-30	Other	One	Lost	Power Press	Honda, Maruti
479	31-40	Other	One	Lost	Power Press	Hero
480	31-40	Finger	One	Lost	Other	Hero

Sl. NO.	AGE (years)	INJURED BODY PART	NO. FINGERS LOST/ DAMAGED	TYPE OF INJURY	MACHINE	OEM (as identified by worker)
481	41-50	Finger	One	Lost	Power Press	Hero, Other
482	31-40	Forearm	One	Lost	Moulding Machine	Maruti
483	31-40	Forearm	One	Lost	Road Accident	
484	41-50	Finger	Two	Lost	Power Press	Maruti
485	31-40	Finger	Two	Lost	Power Press	Maruti, Other
486	41-50	Finger	One	Lost	Other	Maruti
487	21-30	Finger	One	Lost	Power Press	Hero, Honda, Maruti
488	21-30	Finger	Four	Lost	Power Press	Hero, Honda, Other
489	21-30	Finger	One	Lost	Other	Honda, Other
490	31-40	Finger	One	Injured	Power Press	Hero, Honda, Maruti
491	31-40	Finger	Four	Lost	Power Press	Maruti
492	21-30	Forearm	One	Lost	Other	Hero, Other
493	31-40	Finger	One	Lost	Power Press	Hero, Other
494	21-30	Finger	One	Lost	Power Press	Hero
495	41-50	Finger	Two	Lost	Power Press	Hero, Honda
496	21-30	Other	One	Lost	Power Press	Hero, Honda, Maruti
497	21-30	Finger	Two	Lost	Power Press	Maruti
498	31-40	Finger	Four	Lost	Power Press	Hero, Honda, Maruti
499	21-30	Finger	Two	Lost	Power Press	Maruti
500	21-30	Other	One	Lost	Power Press	Honda, Maruti
501	31-40	Finger	One	Fractured	Other	Hero, Honda, Maruti, Other
502	21-30	Forearm	One	Lost	Power Press	Hero, Honda, Maruti
503	21-30	Finger	One	Lost	Power Press	Hero, Honda
504	21-30	Finger	Three	Lost	Power Press	Other
505	31-40	Finger	One	Lost	Power Press	Hero, Honda
506	31-40	Other	One	Lost	Power Press	Hero, Honda, Maruti
507	21-30	Finger	One	Injured	Other	Hero, Honda
508	Below 20	Finger	Three	Lost	Power Press	Hero, Honda, Maruti
509	21-30	Finger	Four	Lost	Power Press	Hero, Honda, Maruti, Other
510	21-30	Finger	One	Lost	Other	Honda, Maruti
511	31-40	Lower Leg	One	Fractured	Other	Maruti
512	31-40	Other		Lost	Other	Honda, Maruti
513	31-40	Finger	One	Lost	Power Press	Hero
514	31-40	Lower Leg	One	Fractured	Road Accident	Maruti, Other
515	21-30	Finger	Three	Lost	Power Press	Hero, Honda, Maruti
516	21-30	Finger	Two	Lost	Power Press	Hero, Honda, Maruti
517	41-50	Finger	One	Lost	Power Press	Maruti
518	41-50	Finger	One	Injured	Power Press	Maruti
519	41-50	Finger	One	Lost	Moulding Machine	Honda, Maruti, Other
520	31-40	Finger	Three	Lost	Power Press	Hero
521	31-40	Finger	One	Fractured	Other	Honda, Maruti, Other
522	21-30	Finger	Four	Lost	Power Press	Honda, Maruti
523	21-30	Finger	Two	Lost	Power Press	Hero, Other
524	Below 20	Finger	One	Lost	Power Press	Hero, Honda, Maruti
525	41-50	Finger	Three	Lost	Power Press	Maruti
526	21-30	Finger	One	Lost	Other	Honda, Maruti
527	Below 20	Finger	One	Lost	Power Press	Hero, Maruti, Other
528	31-40	Finger	Two	Lost	Power Press	Hero, Honda, Maruti
529	21-30	Finger	One	Fractured	Other	Hero, Honda
530	21-30	Forearm	One	Injured	Other	Maruti
531	31-40	Finger	One	Lost	Power Press	Hero
532	31-40	Finger	One	Lost	Power Press	Hero, Honda
533	Below 20	Finger	One	Lost	Power Press	Hero, Honda, Other
534	41-50	Finger	Two	Lost	Power Press	Hero, Honda
535	31-40	Finger	One	Injured	Power Press	Honda, Maruti
536	31-40	Finger	One	Injured	Other	Honda, Maruti
537	21-30	Finger	Two	Injured	Other	Maruti, Other
538	31-40	Finger	Two	Lost	Power Press	Honda, Maruti, Other
539	21-30	Finger	Two	Lost	Power Press	Hero, Honda
540	21-30	Other	One	Injured	Other	Hero, Honda, Maruti

Sl. NO.	AGE (years)	INJURED BODY PART	NO. FINGERS LOST/ DAMAGED	TYPE OF INJURY	MACHINE	OEM (as identified by worker)
541	Below 20	Finger	One	Injured	Other	Hero, Honda, Maruti
542	31-40	Finger	One	Lost	Power Press	Maruti, Other
543	31-40	Finger	Two	Lost	Power Press	Maruti
544	31-40	Other	One	Lost	Other	Maruti, Other
545	21-30	Finger	Three	Lost	Power Press	Hero, Other
546	41-50	Finger	One	Lost	Other	Hero, Honda, Maruti, Other
547	Below 20	Finger	One	Injured	Power Press	Maruti
548	31-40	Finger	Four	Lost	Power Press	Maruti
549	41-50	Finger	Two	Lost	Power Press	Hero, Maruti, Other
550	21-30	Finger	One	Lost	Other	Hero, Honda, Maruti
551	21-30	Finger	One	Lost	Power Press	Honda, Maruti
552	21-30	Finger	One	Lost	Power Press	Hero, Honda, Maruti
553	31-40	Finger	Two	Lost	Power Press	Hero, Honda
554	31-40	Finger	Three	Lost	Power Press	Hero, Honda
555	21-30	Finger	Two	Lost	Power Press	Hero, Honda
556	41-50	Finger	Two	Lost	Power Press	Hero, Honda, Maruti
557	21-30	Finger	Three	Lost	Power Press	Maruti, Other
558	21-30	Finger	One	Lost	Other	Hero, Maruti
559	41-50	Finger	One	Injured	Power Press	Hero, Honda, Maruti
560	Below 20	Finger	Three	Lost	Power Press	Hero
561	21-30	Finger	One	Lost	Power Press	Hero
562	21-30	Finger	Two	Injured	Power Press	Hero, Maruti, Other
563	21-30	Finger	Five	Lost	Power Press	Maruti
564	51-60	Finger	One	Lost	Power Press	Hero, Maruti
565	Below 20	Finger	Two	Lost	Power Press	Hero, Honda, Maruti
566	31-40	Finger	Three	Lost	Power Press	Maruti, Other
567	21-30	Finger	Four	Lost	Power Press	Maruti
568	31-40	Finger	Two	Lost	Power Press	Maruti
569	21-30	Finger	Three	Lost	Power Press	Maruti
570	21-30	Forearm		Fractured	Road Accident	Hero, Honda
571	21-30	Finger	One	Lost	Power Press	Hero, Honda
572	21-30	Other	One	Injured	Other	Hero, Honda, Maruti
573	21-30	Finger	Four	Lost	Power Press	Maruti
574	31-40	Finger	Two	Lost	Power Press	Maruti
575	31-40	Forearm	One	Other	Other	Maruti
576	31-40	Finger	One	Lost	Other	Hero
577	21-30	Finger	One	Lost	Power Press	Hero, Honda
578	21-30	Forearm	One	Fractured	Other	Hero, Honda, Maruti
579	21-30	Finger	One	Lost	Other	Hero, Honda, Other
580	Below 20	Finger	Four	Lost	Power Press	Hero, Maruti
581	21-30	Finger	One	Lost	Power Press	Hero, Maruti
582	41-50	Finger	One	Lost	Power Press	Hero
583	31-40	Finger	One	Lost	Power Press	Hero
584	21-30	Finger	Two	Lost	Power Press	Maruti
585	21-30	Finger	One	Injured	Other	Hero
586	21-30	Finger	Two	Injured	Power Press	Hero, Honda, Maruti
587	21-30	Finger	Two	Lost	Power Press	Hero, Honda
588	31-40	Finger	One	Injured	Other	Hero, Honda, Maruti
589	41-50	Forearm	One	Fractured	Other	Hero, Honda, Maruti
590	Below 20	Finger	One	Lost	Moulding Machine	Other
591	41-50	Finger	Two	Lost	Power Press	
592	21-30	Finger	One	Injured	Other	Other
593	Below 20	Forearm	One	Injured	Moulding Machine	Hero, Honda, Maruti
594	21-30	Finger	One	Injured	Moulding Machine	Hero, Honda, Maruti, Other
595	21-30	Finger	Two	Lost	Other	Hero, Honda
596	21-30	Finger	Two	Fractured	Other	Hero, Other
597	31-40	Finger	Four	Other	Other	Maruti
598	41-50	Finger	One	Lost	Other	Other
599	21-30	Finger	One	Injured	Power Press	Maruti
600	41-50	Finger	One	Injured	Other	Hero, Honda, Maruti

Sl. NO.	AGE (years)	INJURED BODY PART	NO. FINGERS LOST/ DAMAGED	TYPE OF INJURY	MACHINE	OEM (as identified by worker)
601	41-50	Finger	One	Lost	Power Press	Maruti
602	31-40	Finger	One	Lost	Other	Hero, Honda, Maruti
603	21-30	Other	One	Other	Moulding Machine	Hero, Honda, Maruti
604	Below 20	Finger	One	Injured	Other	Hero, Honda, Maruti
605	31-40	Other	One	Lost	Power Press	Honda, Maruti, Other
606	21-30	Finger	Two	Lost	Other	Hero, Honda, Maruti
607	21-30	Finger	One	Injured	Power Press	Hero, Honda
608	31-40	Finger	Four	Lost	Power Press	Hero, Honda
609	21-30	Finger	Three	Lost	Power Press	Other
610	Below 20	Finger	One	Injured	Power Press	Hero, Honda, Maruti
611	21-30	Lower Leg	One	Fractured	Other	Hero, Honda, Maruti
612	21-30	Finger	Three	Lost	Power Press	Hero
613	51-60	Finger	One	Lost	Power Press	Hero, Honda
614	31-40	Finger	One	Lost	Power Press	Hero
615	31-40	Forearm	One	Injured	Power Press	Maruti, Other
616	21-30	Other	One	Lost	Power Press	Maruti
617	21-30	Finger	Three	Lost	Power Press	Honda, Maruti
618	21-30	Other	One	Lost	Power Press	Maruti
619	21-30	Finger	One	Injured	Other	Honda, Maruti
620	31-40	Other	One	Injured	Power Press	Hero, Honda, Maruti
621	21-30	Finger	One	Injured	Other	Maruti
622	21-30	Finger	One	Lost	Other	
623	Below 20	Finger	Four	Lost	Other	Maruti
624	21-30	Finger	One	Lost	Other	Maruti, Other
625	41-50	Finger	One	Lost	Power Press	Hero, Honda, Maruti
626	21-30	Finger	Three	Injured	Power Press	Hero
627	31-40	Forearm	One	Injured	Other	Maruti, Other
628	21-30	Finger	One	Lost	Other	Other
629	21-30	Other	One	Injured	Other	Maruti
630	Below 20	Finger	One	Injured	Other	Hero, Honda, Maruti, Other
631	31-40	Finger	Three	Lost	Power Press	Maruti
632	21-30	Forearm	One	Other	Moulding Machine	Maruti
633	Below 20	Finger	One	Lost	Power Press	Other
634	41-50	Forearm	One	Injured	Power Press	Maruti
635	21-30	Finger	One	Lost	Power Press	Honda, Maruti
636	21-30	Finger	One	Lost	Other	Maruti
637	Below 20	Finger	One	Lost	Other	Other
638	31-40	Finger	One	Lost	Other	Hero
639	21-30	Finger	Two	Injured	Other	Maruti
640	41-50	Forearm	One	Fractured	Road Accident	Maruti
641	41-50	Finger	Two	Lost	Power Press	Hero, Honda, Maruti
642	31-40	Finger	Three	Injured	Moulding Machine	
643	21-30	Finger	One	Lost	Power Press	Hero, Honda, Maruti
644	21-30	Lower Leg	One	Lost	Other	Hero, Honda, Other
645	41-50	Finger	Three	Lost	Power Press	Hero
646	31-40	Finger	One	Lost	Other	Hero, Honda, Maruti
647	21-30	Finger	One	Lost	Power Press	Other
648	Below 20	Finger	One	Lost	Other	Hero, Other
649	21-30	Other	One	Injured	Other	Honda, Maruti
650	21-30	Lower Leg	One	Injured	Other	Honda
651	21-30	Finger	Two	Lost	Other	Hero, Honda, Maruti
652	21-30	Finger	One	Lost	Power Press	Hero, Honda, Maruti
653	21-30	Finger	One	Lost	Power Press	Hero, Honda
654	21-30	Lower Leg	One	Fractured	Other	Maruti, Other
655	21-30	Lower Leg	One	Injured	Other	Hero, Honda, Other
656	21-30	Forearm	One	Injured	Road Accident	Maruti, Other
657	31-40	Finger	One	Lost	Other	Maruti
658	21-30	Forearm	One	Fractured	Other	Maruti
659	21-30	Finger	One	Lost	Power Press	Honda, Maruti
660	21-30	Finger	Two	Lost	Power Press	Hero, Honda, Maruti

Sl. NO.	AGE (years)	INJURED BODY PART	NO. FINGERS LOST/ DAMAGED	TYPE OF INJURY	MACHINE	OEM (as identified by worker)
661	Below 20	Finger	Two	Lost	Power Press	Maruti
662	21-30	Lower Leg	One	Fractured	Other	Hero
663	21-30	Finger	One	Lost	Power Press	Hero, Honda, Maruti, Other
664	31-40	Forearm	One	Fractured	Road Accident	Honda
665	21-30	Finger	Two	Injured	Other	Hero, Honda, Maruti, Other
666	Below 20	Finger	Three	Lost	Power Press	
667	31-40	Finger	One	Lost	Power Press	Maruti
668	21-30	Finger	One	Injured	Moulding Machine	Honda, Other
669	51-60	Finger	One	Lost	Power Press	Hero, Honda, Maruti
670	41-50	Finger	One	Lost	Power Press	Hero, Maruti
671	21-30	Finger	One	Lost	Power Press	Hero, Honda, Maruti
672	21-30	Finger	Four	Injured	Other	Hero, Honda
673	21-30	Finger	Two	Lost	Other	Other
674	21-30	Finger	Two	Lost	Power Press	Other
675	21-30	Finger	Two	Lost	Power Press	Hero, Honda, Maruti
676	21-30	Finger	Two	Injured	Power Press	Hero, Honda, Maruti
677	21-30	Finger	One	Lost	Power Press	Other
678	21-30	Finger	One	Lost	Other	Hero
679	Below 20	Finger	Three	Injured	Other	Maruti
680	Below 20	Finger	One	Lost	Power Press	Other
681	31-40	Finger	Two	Lost	Power Press	Maruti
682	Below 20	Finger	One	Lost	Power Press	Hero, Honda, Maruti
683	21-30	Finger	One	Lost	Other	Hero, Maruti
684	21-30	Finger	One	Lost	Other	Hero, Honda, Maruti
685	41-50	Finger	Three	Injured	Power Press	Hero
686	31-40	Other	One	Injured	Other	Maruti
687	41-50	Finger	Three	Lost	Power Press	Maruti
688	21-30	Finger	One	Lost	Power Press	Hero, Honda, Maruti
689	41-50	Forearm	One	Fractured	Other	Maruti
690	21-30	Finger	One	Injured	Power Press	Hero
691	41-50	Finger	One	Lost	Power Press	Hero, Honda, Maruti, Other
692	31-40	Finger	Two	Lost	Other	Hero, Maruti
693	41-50	Finger	One	Lost	Power Press	Other
694	21-30	Finger	One	Injured	Other	Maruti
695	21-30	Finger	One	Injured	Power Press	Hero, Honda, Maruti
696	21-30	Finger	Two	Lost	Other	Maruti
697	21-30	Finger	One	Lost	Other	Other
698	Below 20	Finger	One	Lost	Power Press	Maruti
699	21-30	Finger	One	Lost	Other	Other
700	Below 20	Finger	Four	Lost	Power Press	Hero, Honda, Maruti
701	Below 20	Finger	One	Injured	Power Press	Hero, Honda, Maruti
702	31-40	Finger	One	Injured	Other	Maruti
703	41-50	Forearm	One	Injured	Road Accident	Maruti
704	41-50	Forearm	One	Fractured	Other	Maruti
705	21-30	Finger	One	Lost	Other	Maruti, Other
706	41-50	Finger	One	Lost	Power Press	Maruti

There is an insignificant difference (about 5) in the number of workers assisted in FY20-21 owing to a system error. This does not change the analysis, conclusions, and recommendations in this report.

Worker safety is good for business, good for productivity. There have been some good practices, but a lot more should happen. These are some areas that we found important to focus on in our engagement with member OEMs: How to share best practices on safety, how to engage with all levels of the supply chain, and focus on the issue of supplier code of conduct.

- **Mr Rajesh Menon**
Director General, Society of Indian Automobile Manufacturers

Congratulations Safe in India for your annual nudge to our collective conscience – the third outing of the CRUSHED report is as precise and provocative as before. Without sensationalizing, the report lays out solid evidence of life altering accidents and injuries among thousands of automobile workers and gives out an immensely well informed call for urgent action. Governments, industry and employers must take immediate heed to CRUSHED's straightforward, actionable and affordable advise. It arises from deep empathy for India's workforce and an abiding belief that the auto industry will stand to gain from keeping its workers safe and secure.

- **Mr Rajiv Khandelwal**
Co-Founder and Executive Director, Aajeevika Bureau

Tell the owners of factories as you enter your factory, you should put up a big hoarding or a digital board that says "so many years or days without an accident"... where they are proudly displaying that I have spent 5,000 days in my factory without a single accident.

- **Mr Anil Sachdeva**
Founder School Of Inspired Leadership (SOIL), at the release of CRUSHED 2020

Thanks to SII team for the great work you are doing for the nation

- **Mr K C Bhushan**
Social Entrepreneur

Safety is the most important pillar for operational excellence. An unsafe workplace with frequent accidents results in losses caused by highly fluctuating quality and productivity. Any investment in making a shop floor accident-free, that makes workers feel safe and focus better on their work, goes a long way in improving quality and productivity.

- **Mr I V Rao**
Former Director, Maruti-Suzuki Center for Excellence, and Visiting Senior Fellow, CSM TERI

This report brings together another year of painstaking work by SII on industrial accidents, their causes, costs, and ways to ameliorate them - something which governments and employers can hardly choose to ignore.

- **Prof Ravi Srivastava**
Chairman of the Institute of Development Studies, Jaipur; Professor and Director at the Centre for Employment Studies, Institute for Human Development

Sad to note that there is no perceptible decline in safety-related accidents in the auto sector - we still have a long way to go. But the increased awareness and the remarkable initiatives of SII give us hope and optimism for the future.

- **Mr Sanjay Srivastava**
Former Additional Secretary, Ministry of Labour and Employment

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