

Safe Work Australia

August 2023 | Issue 4

Quarterly

# DATA UR ORIES.

Putting together the data puzzle

How data can be a powerful tool for WHS professionals

Using data to improve WHS outcomes for apprentices and trainees



# WELCOME TO THE SAFE WORK AUSTRALIA QUARTERLY UPDATE

In the August edition of the Safe Work Australia quarterly newsletter we're focusing on our data and how it provides key national insights that can help drive improvements in work health and safety and workers' compensation.



Subscribe to Safe Work Australia News to receive our quarterly newsletter or get email updates across a range of topics including work health and safety, workers' compensation, data and statistics, model WHS laws and codes of practice.

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### Putting together the data puzzle

Hear from our Data Improvement and Analysis Section about how we put together the pieces of the puzzle to bring you reliable, timely and informative data that provides a national picture of safety at work in Australia.



## Using data to improve WHS outcomes for apprentices and trainees

Using data from the National Data Set for Compensation-based Statistics (NDS), we prepared a new report on WHS outcomes for apprentices and trainees under 30 in the Construction and Manufacturing industries.



#### Our Data. Your Stories.

Developing an evidence base to inform work health and safety and workers' compensation policy and practice is one of Safe Work Australia's key functions.

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#### Case study ———

## How Safe Work Australia data informs academic research

Professor Alex Collie, who leads the Healthy Working Lives Research Unit in the School of Public Health and Preventive Medicine at Monash University, talks about how Safe Work Australia data informs his work and why the data is so important.

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## How data can be a powerful tool for WHS professionals

Read about how Sarah, a WHS manager, used the Safe Work Australia data website to improve safety in her workplace by assisting her to identify hazards, assess WHS risks in the workplace, and implement control measures.

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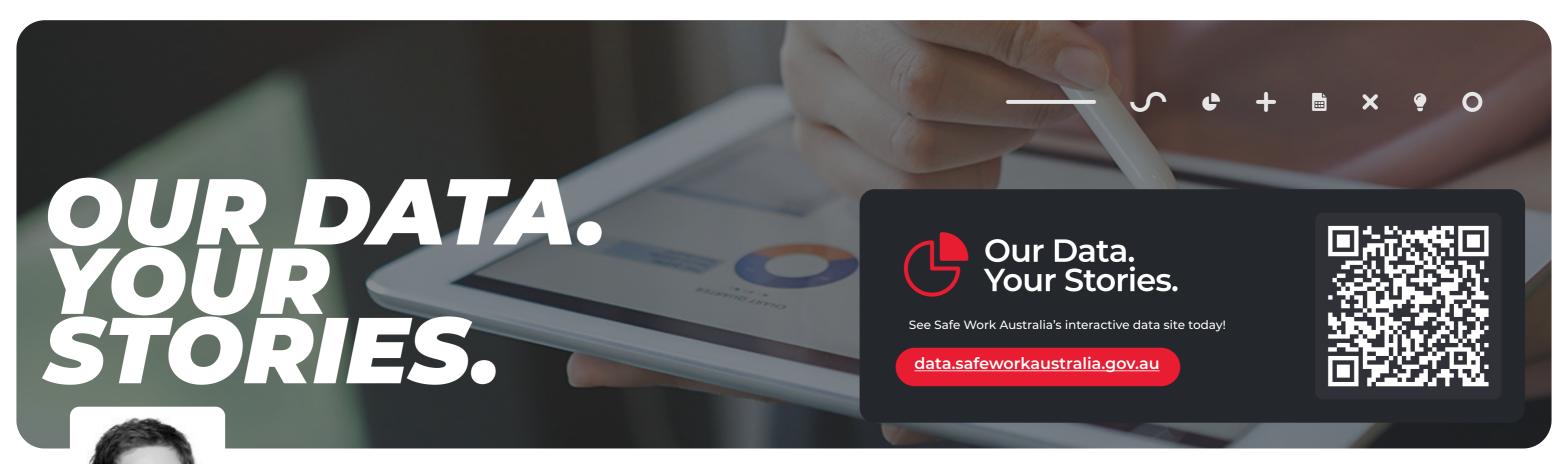
## Using data to contribute to policy development

Through our data, Safe Work Australia is playing a leadership role to ensure that safety and health at work are key considerations in national policy discussions about work and the labour market.

#### Data highlight — pg.12

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Older workers' safety in the workplace



Michelle Baxter
CEO Safe Work Australia

It's an exciting time in the world of data at Safe Work Australia, and I hope you enjoy learning a bit more about it in this edition of our newsletter.

Welcome to the latest edition of our Safe Work Australia quarterly newsletter. In this instalment, it's all about data. You'll get an insight into our data, how we're innovating to improve our national data collection and delivery, and how this contributes to improving work health and safety (WHS) and workers' compensation arrangements to make work safer for everyone.

Developing an evidence base to inform WHS and workers' compensation policy and practice is one of Safe Work Australia's key functions. We have been progressing a data improvement project since late 2020 to make our data more useful and accessible and to improve our data communication.

Recently we've reached some important milestones on our data improvement journey. Behind the scenes, we've transitioned our data to a new operating environment. This means we can make it publicly available more efficiently and effectively, and enable more insights into key WHS issues and trends to be explored.

This month we officially launched our new interactive data website, a significant achievement in making our national data easier to access and explore.

Through the website, we are releasing more data than ever before, driving new insights. I really encourage you to go to the website and take a look - **Our Data.** 

#### Your Stories. | dataswa

We've also taken steps to improve our evidence base and data quality. We're exploring new data sources, developing our data further, and looking to the wider labour market and economic and social trends, which together will allow us to more quickly identify and track emerging hazards and risks before they become WHS issues.

These initiatives all enable us to deliver data that's more timely, transparent, interactive and detailed.

This will support increased collaboration and data-sharing between governments, industry and other stakeholders to inform evidence-based WHS and workers' compensation policy and practice.

I also want to reflect on the real human stories behind our data. We're strongly aware that each work-related injury and illness has a profound impact on the worker, their family, and their community. It is vitally important that these experiences are captured and reported.

While nothing can alter what has happened to these workers, having a strong evidence base will inform improved policy and practice that will reduce the frequency and impact of work-related injuries and illnesses into the future, in line with our goal in the Australian Work Health and Safety Strategy 2023-2033, and supporting our vision of safe and healthy work for all.

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These initiatives all enable us to deliver data that's more timely, transparent, interactive and detailed.





About the Safe Work Australia data website data.safeworkaustralia.gov.au



## 6 industry dashboards:

Agriculture
Construction
Health care and social assistance
Manufacturing
Mining
Road transport



## 7 topic dashboards:

Key WHS statistics
Preliminary fatalities 2023
Work-related fatalities
Workers' compensation
National Return to Work
Survey
Quad bikes
WHS prosecutions



## Insights about WHS:

Analysis Curated data Reports and snapshots



Lost time injury frequency rate calculator (LTIFR)

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One of Safe Work

roles is to collect,

promote national

WHS and workers'

compensation data.

Our data builds the national

policy and practice to make

Improvement and Analysis

Section about how we put

together the pieces of the

puzzle to bring you reliable,

timely and informative data that provides a national picture of safety at work in Australia.

our workplaces safer.

Hear from our Data

evidence base to help inform

analyse, publish and

Australia's key

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Our data collections, including the Traumatic Injuries and Fatalities (TIF) database, National Dataset for Compensation-based Statistics (NDS) and National Return to Work Survey, are highly valuable and important resources. As data custodians, at all times we're motivated to ensure the data is used to benefit Australians by driving improvements to WHS and workers' compensation policy and practice.



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Bringing together data from different sources means we can glean new insights that aren't available from a single source. One of the challenges we face is that data never arrives neatly packaged up and ready to use, so an important part of our role is to investigate and correct any anomalies or inconsistencies, to ensure the data is consistent and interpretable.



All of our data goes through a checking process to ensure it's high quality and makes sense. For example, we may identify missing data that needs to be adjusted for, unusual features in the data or errors that weren't found in an earlier part of the process. This stage is really important, as it ensures that our data is robust and accurate and can be trusted. \$\frac{9}{2}\$



Jonathan Blanchard, Data Engineer; Grace Nichols, Data Analyst

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One thing that really motivates us is making our data publicly available wherever possible, so more people have access to information that can improve WHS and workers' compensation in Australia. The interactive dashboards on our new data website mean our users can create their own tables, discover graphs and charts, and sort and filter data by industry, occupation, year, mechanism of injury and more. This is really powerful information and we're really excited about the benefits this will bring.

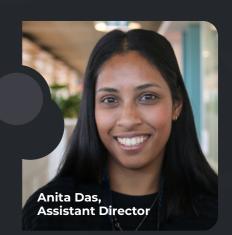


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We analyse our data to develop curated data and insights reports, which explore key topics in detail. In these reports, we can address complex questions and investigate and understand trends and patterns to bring the data to life. Recently, our report on WHS apprentices and trainees has had a really positive response, and we're excited about upcoming reports which will look at WHS in some emerging occupations. 55



Promoting and sharing our data effectively means the findings and insights can reach policymakers, researchers, workplaces and the broader community to have a real impact. Our new data website is one of the new ways we're communicating our analysis and sharing our data stories to reach more people and result in more improvements to WHS. 95



Jackson Micallef (not pictured) and Brendan Burns, Senior Data Analysts

















## Case study -

## HOW SAFE WORK AUSTRALIA DATA INFORMS ACADEMIC RESEARCH

Professor Alex Collie leads the Healthy Working Lives Research Unit in the School of Public Health and Preventive Medicine at Monash University. He is also the President of the Scientific Committee on Work Disability Prevention for the International Commission on Occupational Health.

Professor Collie talks about how Safe Work Australia data informs his work and why the data is so important.



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Safe Work Australia data is really the only national source of data on occupational health we have in Australia. It is incredibly important for tracking our national and state and territory performance in preventing workplace injury and disease, and in supporting return to work.

Analysis of the data can help to identify opportunities for improved prevention of injuries, or for rehabilitation. Without the data, we'd have much less quality information to support national policy and planning in occupational health.

Professor Alex Collie, Monash University 39

Our research at Monash University is in the broad occupational health area, but my unit's main area of focus is workers' compensation and return to work. Descriptive epidemiology is a cornerstone of our research program and we have used the National Dataset for Compensation-based Statistics (NDS) and the National Return to Work Survey in many studies, and for different purposes.

Most recently we used the NDS in a series of studies that explored the impact of legislative reform in workers' compensation schemes on claim outcomes, such as time on wage replacement benefits. We've also published studies with the National Return to Work Survey data that have examined worker health and the things that affect it, such as psychological stress, financial circumstances, and experiences of the workers' compensation claims process.

# USING DATA TO contribute to policy development

Through our data,
Safe Work Australia
is playing a leadership
role to ensure that safety
and health at work
are key considerations
in national policy

Recently we contributed to the Draft National Strategy for the Care and Support Economy, which sets a roadmap of actions to achieve a sustainable and productive care and support economy.

discussions about work

and the labour market.

We provided the Care and Support Economy Taskforce with important data about the current situation and trends in WHS and workers' compensation in this industry.

As a result of our contribution, the draft strategy highlights safe and inclusive workplaces are a necessary foundation for a sustainable and productive care and support economy, that delivers quality care and support with decent jobs.

Our analysis showed that serious workers' compensation claim frequency rates for the care and support economy were:



**Physical injuries** were the most common claim



**Women** more frequently made a claim than men.



workers' compensation claim frequency rate

### 2x greater

than other industries in 2020-21



the rate of injury claims has been increasing and continues to rise at a greater pace relative to other industries

### it rose by 25%

between 2016-17 and 2020-21

Our data and research is a powerful tool for national policy conversations, enabling us to highlight the benefits that safe and healthy work provide to all Australians, and the economy more broadly. Through our data, we can also play an important role in monitoring and measuring policy outcomes and impacts.

James Costabile, Assistant Director, Data Improvement and Analysis

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## USING DATA TO IMPROVE WHS OUTCOMES for apprentices and trainees

Apprenticeships and traineeships are a vital pathway for workers beginning their careers, and as with all other workers, apprentices and trainees have the right to a safe and healthy working environment.

Using data from the National Data Set for Compensation-based Statistics (NDS), we prepared a new report on WHS outcomes for apprentices and trainees under 30 in the Construction and Manufacturing industries.

This is the first snapshot report of its kind, delving into the data to provide new insights relevant to policymakers, regulators and those who employ, manage and support apprentices and trainees.

#### Key findings include:

- From 2016-17 to 2020-21, the number of serious claims (involving total absence from work of one week or more) for apprentices and trainees rose by 41% despite the number of apprentices and trainees increasing only 13%.
- ▼ Together, the Construction, Manufacturing and Other services industries accounted for more than two-thirds of all serious workers' compensation claims for apprentices and trainees. Half (49.9%) of these claims were for workers in the Construction industry alone.
- - The most common type of work-related injury was 'Lacerations or open wounds not involving traumatic amputation'.
  - The most common cause of work-related injury was 'Falls, trips and Slips'.
- **?** For apprentices and trainees under 30 in the Manufacturing industry:
  - The most common type of work-related injury was 'Laceration or open wounds not involving traumatic amputation'.
  - The most common cause of work-related injury was 'Being hit by moving objects'.

Download the full report from the <u>Safe Work Australia data website – Our Data. Your Stories. – WHS outcomes for apprentices and trainees.</u>

## data highlight

# OLDER WORKERS' SAFETY IN THE WORKPLACE

Examination of these data revealed that older workers are:



less likely

to experience injury or illness



if injured or made ill by work **took more time off work** 



**more likely** to be fatally injured



were paid more workers' compensation



less likely to return to work following an injury than their younger counterparts

A tightening labour market should encourage employers to attract and retain older workers. Unfortunately, older workers can experience stigma that they are more prone to work related injury than their younger counterparts.

We recently explored older workers' experiences of safety in Australian workplaces in a presentation to the Centre of Excellence in Population Ageing Research (CEPAR) International Conference.

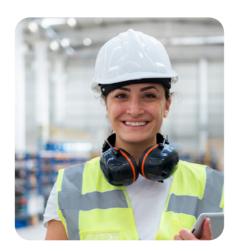
This analysis used data from the Work-related Injury Survey, the National Dataset for Compensation-based Statistics, the Traumatic Injury Fatalities database and the National Return to Work Survey.

These data sources show that older workers are **less likely** to experience a work related injury or illness than their younger counterparts, but if an injury or illness occurs, they took more time off work and were more likely to be fatally injured.

These findings have policy implications for both supporting participation of older workers in the workplace and further examining their unique experience of workplace injury and disease.

## HOW DATA CAN BE A POWERFUL TOOL FOR WHS PROFESSIONALS

In this case study, read about Sarah, a WHS manager, used the Safe Work Australia data website to improve safety in her workplace by assisting her to identify hazards, assess WHS risks in the workplace, and put in place control measures. This case study has been developed based on real feedback, but some details have been changed.



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The data I found on the Safe Work Australia Data website – Our Data. Your Stories. helped me identify hazards and assess WHS risks in the workplace, meaning I could put in place measures to control the risks. I did a safety presentation to management using the graphs and charts to highlight the risks in our own workplace and to tell stories of real injuries and fatalities in workplaces like ours.

Sarah, WHS manager

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I recently started working for a food manufacturer as a work health and safety manager. I've worked in WHS for years, but this was my first time working in manufacturing, and wanted to learn more about safety in the industry.

I'd seen something on LinkedIn about the new WHS data website - Safe Work Australia data website - Our Data. Your Stories. So I checked it out - it has really easy to use interactive dashboards of WHS data, including for the Manufacturing industry.

Exploring the dashboard, I found the most common hazards that lead to worker fatalities in manufacturing in Australia are machinery and fixed plant, and mobile plant and transport. At my workplace that would include machines like automatic shrink wrap machines (fixed plant) and forklifts (mobile plant).

I also was able to see that the most common injuries in manufacturing are traumatic joint/ligament and muscle/tendon injuries. With the machines at my work, injuries could occur when feeding items through the conveyor belt, or from collisions or impact from powered mobile plant like forklifts.

And the most common bodily location of injuries is to the hands, fingers and thumbs, and back injuries. Injuries like bruising, dislocated fingers, or even amputation, as well as musculoskeletal injuries, could occur if WHS controls are not in place.

The data was also useful for consulting with workers on health and safety issues. Using this data, there is so much I can do to promote a safe and healthy workplace.

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# WHY WE'RE HERE

A core function of our work is developing and maintaining an evidence base to inform WHS and workers' compensation policy and practice



\$28.6b

The value to the Australian economy each year from reducing work-related injuries and illnesses



130,195

Serious workers' compensation claims in 2020-21p



95 killed

The preliminary number of Australians killed at work in 2023 to date



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