

HEALTHY PEOPLE IN SAFE AND PRODUCTIVE WORKPLACES

# Workplace fatalities in summer and autumn

↳ A GUIDE FOR WORKPLACES

Department of Labour  
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## KEY RESEARCH FINDINGS

- Over the past six years, there have been more workplace fatalities in New Zealand during summer (Dec-Feb) followed by autumn (March – May).
- Male workers aged between 55 and 64 are most likely to have a fatal workplace incident during the summer between sunrise and noon.
- Male workers aged between 35 and 44 are most likely to have a fatal workplace incident during the autumn between noon and sunset.
- Independent of season, older workers aged 65 and above are at the most risk of a fatal workplace incident.
- The most at-risk industries are agriculture, construction, and transport and storage.
- 52% of work-related fatalities from 2000 to 2005 involved a vehicle.
- Nearly 50% of work-related fatalities from 2000 to 2005 were directly due to one of three causes:
  - vehicle rollover
  - crush injuries
  - fall from height.



Between 24 December 2005  
and 17 January 2006, the  
Department was notified of  
10 fatal workplace incidents.

## **WHY DID THE DEPARTMENT OF LABOUR DO THE STUDY?**

The rate of workplace fatalities in New Zealand rose significantly (by 40%) in 2005/06, and a high number of those deaths occurred over the summer period.

Between 24 December 2005 and 17 January 2006, the Department was notified of 10 fatal workplace incidents.

In response to this increase, the Department undertook research into the reasons behind the consistently high numbers of workplace fatalities during the Christmas and New Year holiday period and the summer months. A key purpose was to identify effective preventive strategies to address this seasonal increase.

The study used data from the Department of Labour only. This data was recorded from 2000 to 2005. Fatality investigation reports were reviewed to determine the factors that contributed to an incident occurring.

This study is a first step to improving our understanding into the reasons behind workplace fatalities. It also highlights some initial areas of workplace health and safety practice which can be improved.

This booklet provides you with a snapshot of the report and is useful for industry, businesses, unions and anyone else interested in achieving the Workplace Health and Safety Strategy's vision of 'Healthy People in Safe and Productive Workplaces'.

## WHAT THE STUDY TELLS US

Analysis of hundreds of the Department of Labour's investigations into workplace fatalities over the past six years has statistically confirmed that from 2000 to 2005, the rate of workplace fatalities was consistently highest in summer (December-February) followed by autumn (March-May).

### **Industry**

The peak danger periods apply specifically to the agriculture and construction industries, and to a slightly lesser degree, transport and storage.

The increase in summertime workplace fatalities can be explained by the seasonal variations in the agriculture industry, where the highest workplace fatality rate is in January, followed by April. This result is not surprising because the work activities in the agriculture industry are highly seasonal.

### **Age and gender**

Male workers aged between 55 and 64 years have the highest incident of summertime workplace fatalities, whilst male workers between 35 and 44 years appear most likely to have a work-related fatal incident in the autumn. Regardless of season, older workers aged 65 and above are suffering the most effects from workplace fatalities.

### **Time of day**

Workplace fatalities in summer tend to occur in the morning, from sunrise to noon, whereas work-related fatalities in autumn tend to occur more in the afternoon, from noon to sunset.

### **Region**

The mid-north and the southern regions of New Zealand are most affected by seasonal variations. In the northern part of New Zealand, it appears that work-related fatal incidents tend to occur more in the summer.



From 2000 to 2005 the total number of workplace fatalities notified to the Department of Labour in January was 42, compared with 16 in June and 23 in July.



## 📌 THE CAUSES OF WORKPLACE FATALITIES

Independent of season, the report indicates that 52% of work-related fatalities from 2000 to 2005 involved a vehicle “off road”.

The research shows that nearly 50% of the total workplace deaths from 2000 to 2005 were directly due to one of three causes:

- Vehicle rollover accounted for 23% of the workplace fatalities investigated and 40% of all agriculture fatalities.
- Crush injuries accounted for 17% of the workplace fatalities investigated.
- Fall from height accounted for 9.7% of the workplace fatalities investigated.



In the southern part of the country, the study shows that workplace fatalities occur more in the autumn.



The research shows that there are two peak times for fatal incidents, late morning, between 10:30 and 12:30, and mid-afternoon, between 14:30 and 15:30.



## MOST COMMON CONTRIBUTING FACTORS TO WORKPLACE FATALITIES

The research identifies seven factors as directly contributing to many of the workplace fatalities between 2000 to 2005. These are:

- human error (>43.1%)
- procedural violation (>27.7%)
- poor/inadequate equipment and/or workplace design (22.1%)
- poor safety culture (11.7%)
- unsafe supervision (10%)
- lack of personal protective equipment (PPE) (8.7%)
- lack of experience (7.69%)

The research indicates that 'human error' and 'procedural violation' have contributed to nearly 70% of work-related fatalities over the past six years.

Identifying 'human error' allows us to ask why a person's decisions and actions made sense to them at the time. It should be seen as a symptom of other things that are going on in the workplace.

The following workplace, environmental and sociological factors have been identified as contributing to workplace fatalities:

- hours worked per day
- lack of recovery from fatigue
- tight timescales/deadlines
- level of casual labour
- gender (male workers)
- employment (employees)
- return to work after a break of more than a week
- rainfall and wet days
- sunshine
- alcohol and drugs

## **WHAT DO THESE FINDINGS MEAN?**

This report helps us to frame new questions, like why are there more workplace fatalities between 10.30am and noon, and between 2.30pm and 3.30pm? And from them, yet more questions: What is the impact of nutritional factors on concentration? Has technology like ride-on farm bikes extended the working lives of people in the agriculture sector? And what challenges might this present?

This research report provides clues to the answers, but not the answers themselves. These will come from further work the Department of Labour now wants to carry out in partnership with stakeholders including industry, business and unions.

## **WHAT DOES THIS MEAN FOR ME?**

There are many things you can do to improve your health and safety at work. Think about the work you do and the role health and safety plays in your working day.

- Fatigue can kill. Don't undertake risky tasks when you're feeling tired.
- Don't cut corners on safety, ever.
- Take note of the danger times and take extra precautions at those times.
- Always wear PPE when it's required.
- If you're not properly trained to do a risky job, don't do it.



'Human error' is not simply identifying the mistakes people make.





We must work together  
to reduce the work-  
related fatality toll  
and make New Zealand  
workplaces better.

## THE DEPARTMENT OF LABOUR'S NEXT STEPS

The Department of Labour will focus on the following approaches to deliver information and guidance.

### **Emphasise the benefits**

Focus on actions that will reduce the work toll.

Identify the benefits of safe work practices and demonstrate that they outweigh the perceived costs.

### **Deliver messages locally**

Awareness-raising will be accompanied by realistic and practical advice on how to improve health and safety in New Zealand's workplaces.

Messages will be targeted and personalised to specific at-risk groups. Small-scale, low-key safety initiatives locally delivered will be an effective part of personalising safety messages.

### **Work together**

The Department will develop collaborative approaches and partnerships for the delivery of messages. We will actively seek the support of others, industry representatives, business organisations, unions, and businesses to promote awareness and action in workplaces and the wider community.

## FURTHER INFORMATION

Download and read a full copy of the report *Investigation of Causative Factors Associated with Summertime Workplace Fatalities* by visiting our website [www.dol.govt.nz](http://www.dol.govt.nz)

For more information on health and safety visit [www.dol.govt.nz](http://www.dol.govt.nz) or call 0800 20 90 20.

FOR FURTHER INFORMATION ON HEALTH AND SAFETY VISIT [WWW.DOL.GOV.NZ](http://WWW.DOL.GOV.NZ) OR PHONE 0800 20 90 20

ISBN 0-478-28105-6

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