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**Superannuation and Investments Practice Committee | Life Insurance  
Practice Committee**

**Technical Paper: Dangerous Occupations**

**28 February 2022**

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## 1 Status of Technical Paper

1. This Technical Paper was prepared by the Insurance in Super Working Group (ISWG), which reports to the Superannuation and Investments Practice Committee (SIPC) and the Life Insurance Practice Committee (LIPC) of the Actuaries Institute.
2. The Technical Paper has been approved by the two Practice Committees.
3. Its purpose is to inform Members about the requirements and considerations for actuarial certification of occupations included in a Trustee's dangerous occupation exception election provided under S68AAF of the SIS Act.
4. Members may be asked by a Trustee to provide a certificate. They may also be asked to provide advice about the occupations they would include in a certificate without providing the certificate, for example to assist the Trustee in determining whether to make an election.
5. The legislation requires the exercise of actuarial judgement. Trustees may have different requirements in their elections e.g. only a limited number of occupations or a wide range of occupations and the certificate could cover all fund members who are exposed to high risk regardless of their specific occupation such as underground mining. In these circumstances it is possible that Members' certificates will not be the same.
6. This Technical Paper is not a Professional Standard or Practice Guideline and it is not mandatory.
7. This Technical Paper does not constitute legal advice. Any interpretation or commentary within this Technical Paper regarding specific legislative or regulatory requirements reflects the expectations of the Institute but does not guarantee compliance under applicable legislation or regulations. Accordingly, Members should seek clarification from the relevant regulator and/or seek legal advice in the event they are unsure or require specific guidance regarding their legal or regulatory obligations.
8. This TP does not override the requirements in this Professional Practice Document or in any other Professional Standards or Practice Guidelines that are relevant to this area of work.
9. Feedback from Members is encouraged and should be forwarded to the Insurance in Super Working Group via: [ppd@actuaries.asn.au](mailto:ppd@actuaries.asn.au).
10. This is the second version of this Technical Paper.
11. In this Technical Paper:
  - Fund member refers to the member of a superannuation fund.
  - Member is a member of the Actuaries Institute.
  - Opt In in relation to cover is cover provided by a fund that is not Opt Out cover.

- Opt Out in relation to cover refers to the situation where a fund automatically provides insurance cover to fund members upon joining the fund (usually subject only to an employment test). This arrangement is commonly referred to as 'default insurance' and requires a fund member to 'opt out' of insurance if the fund member considers the insurance to be inappropriate for them.
- Registerable Superannuation Entity has the same meanings as the term in the SIS Act.
- SIS Act is the Superannuation Industry (Supervision) Act 1993. This was amended by the Treasury Laws Amendment (Putting Members' Interests First) Act 2019 (Royal Assent on 2 October 2019), commonly referred to as the PMIF changes.
- Trustee is the Trustee of a Registrable Superannuation Entity.

## 2 Background

### 2.1 Legislation

12. The SIS Act requires that, from 1 April 2020, an insured benefit is not provided by the Trustee of a fund on an Opt Out basis to:
  - a new fund member if the fund member is under age 25; or
  - a fund member who has an account balance that has not been \$6,000 or more since 1 November 2019. APRA has confirmed that the account balance test is the total account balance and not the product level account balance of the fund member.
13. There are a number of exceptions to the requirement. The exceptions apply to a fund member:
  - who elects to be provided with an insured benefit, including where the fund member has previously made an active decision in relation to their cover; or
  - who is a defined benefit fund member; or
  - who is (or would have been apart from the fact that the Commonwealth chose an alternative fund) an ADF Super fund member; or
  - to whom the employer-sponsor contribution exception applies; or
  - to whom the Trustee has determined that the dangerous occupation exception applies.
14. The covenants in the SIS Act require a Trustee to exercise the Trustee's duties and powers in the best financial interest of fund members.

15. The dangerous occupation exception applies to fund members who are emergency services workers (as defined by the Work Health and Safety Act 2011) or who are in occupations certified by a Fellow of the Institute of Actuaries of Australia to be dangerous. The SIS Act requires the actuary to certify that:

*“(i) based on rates of death, or death and total and permanent disability; and  
(ii) using information from the most recent 5 years in relation to Australian occupations;  
the occupation is in the riskiest quintile of Australian occupations.”*

16. The Explanatory Memorandum accompanying the amendment to the SIS Act states that “The dangerous occupation exception recognises that certain occupations carry a higher degree of risk which provides a basis for retaining the current Opt Out insurance settings for fund members employed in these occupations.”
17. The legislation provides a pathway for young and low account fund members working in a dangerous occupation to be covered by Opt Out insurance (where that is the decision of the Trustee).
18. The dangerous occupations exception (S68AAF) is set out in full in Appendix 1.
19. The determination of dangerous occupation is to be based on rates of death or death and total and permanent disablement (TPD). However:
- the Trustee may apply the dangerous occupation exception to any one or more or all of its insured benefits as it determines; and
  - the Member may use other information and data to inform their judgement. This is discussed in Section 4.
20. Fund members who are precluded from Opt In cover because of their occupation under the occupation rating manuals of insurers would appear to be prima facie in a dangerous occupation. It may be a poor outcome for fund members if they are excluded from Opt Out cover when they are not eligible for Opt In cover because their occupation is deemed too dangerous by insurers. This is discussed in Section 4.

## **2.2 Trustee communication with fund members**

21. The Trustee's dangerous occupation exception election is in force from the date the election is given to APRA. The election must be published on the fund's website as soon as practicable.
22. The Trustee must within 28 days from when the exception applies to the fund member, notify the fund member that Opt Out insurance is being provided, details of the cost and details of how to cease cover.

### **2.3 Code of Conduct**

23. Members providing the certification should ensure that they have considered their obligations under the Actuaries Institute Code of Conduct. In particular, in relation to conflicts of interest, it may be inappropriate for a Member employed by the fund's insurer to provide the certification.

## **3 Scope**

24. This Technical Paper covers only the actuarial issues raised in the dangerous occupation certification. It includes some additional background material for the information of Members in Appendix 4. It does not discuss any of the issues associated with specifying emergency services workers in the Trustee's dangerous occupation exception election as this does not require actuarial certification.

## **4 Determination of the Riskiest Quintile**

25. The essence of the actuarial certification is the determination of whether an occupation or occupations are within the riskiest quintile of occupations. The information apparently envisaged by the SIS Act as available for this purpose does not exist or does not exist to the extent necessary to produce "rates". Further the SIS Act is open to interpretation. The information below is intended to provide Members with a discussion of some of the interpretations and implementations of the key considerations in these circumstances.

### **4.1 All Occupations or Relevant Occupations**

26. The Member may certify that certain relevant (to the fund) occupations or groups of occupations (e.g. underground mining or certain categories) are in the top quintile rather than list every occupation that is in that quintile. This may be appropriate for a fund whose fund members are predominantly from a known narrow range of dangerous occupations.
27. This also has the advantage for the Trustee of simplifying communication.
28. Alternatively, some Trustees may want to know specifically which occupations should not be included in the exception. This would suggest a more comprehensive list of occupations may be more appropriate in these circumstances.
29. The Member may decide to certify occupations that would not of themselves fall into the top quintile, but the work is performed in a higher risk environment resulting in the Fund member being in the riskiest quintile. Examples include accountants, geologists, engineers and other professional occupations where part or all of their work is on mining sites, oil rigs or construction sites.

## 4.2 Death or Death and TPD Rates

30. The Member is required to base the certification on either rates of death or rates of death and TPD. Considerations on which of these to use include:
- Whether to limit considerations to workplace related injuries and deaths or to also include non-workplace related incidences. The Member will need to decide how to interpret the impact of a fund member's occupation on their claim rates and to what level a person's occupation influences their death and TPD rate. This could be for example:
    - a) workplace related illnesses, injuries and deaths, or
    - b) workplace related illnesses, injuries and deaths plus lifestyle impacts where these can be related to occupation based on credible data or analysis.
  - TPD definition – SIS Act or similar. It may be inappropriate to use an activities of daily living or activities of work definition.
  - Treatment of IP. Many funds offer IP as a default benefit. The legislation does not use IP rates as a basis for determining dangerous occupation, but the exception applies to all cover including IP, as determined by the Trustee.
  - There may be some designs where Opt Out cover is death only. In these cases, reference only to death rates may be more appropriate. Otherwise, it is likely that death and TPD rates would be used.
31. The lack of available information means that TPD rates may need to be estimated from other sources of occupation-based disability rates. This is a reasonable approach as the (occupation) relative rates are the important consideration for certification rather than the absolute rate.

## 4.3 Occupation - Level

32. The ABS occupation definitions (ANZSCO) provide occupation definitions at various levels of aggregation.

Table	Description	Number of Occupations	
		Version 1.2	Version 1.3
1	Major Groups	8	8
2	Major and Sub-Major Groups	36	43
3	Major, Sub-Major and Minor Groups	84	97
4	Major, Sub-Major, Minor and Unit Groups	348	358
5	Major, Sub-Major, Minor, Unit Groups and Occupations	1,023	1,032

33. This structure may be useful if the Member or Trustee needs to map data sources to occupations e.g. using a retail occupation rating manual.

34. With some 1,000 occupations in Table 5 statistically credible rates are not likely to be feasible to develop even if the data is available at this level.
35. Fund members and employers may find it easier to understand and identify with fewer rather than more occupations. This will also assist Trustees administratively and will reduce costs and the risk of errors of more complex approaches.
36. The Member may need to consider an occupation level approach where the numbers in each occupation provide statistically credible information to develop relative rates of claim if this is the approach adopted by the Member.
37. Appendix 2 sets out the ANZSCO listing for Table 2 (Sub-Major Group) and the approximate number of workers in each occupation based on Safe Work Australia data and Appendix 5 gives an example of how these Tables interact. The ABS also publishes the number of employees by occupation, see paragraph 53.

#### **4.4 Occupation - Weighting**

38. The wording in the legislation is open to interpretation in relation to top quintile occupations. The Member will have to decide whether to use weighted (i.e. top quintile based on number of employees in each occupation as a proportion of the labour force) or unweighted occupations (i.e. top quintile based on number of occupations). The ABS ANZSCO tables do not provide groupings with equal numbers of workers.
39. The weighted approach appears to be more in line with an actuarial interpretation of the legislation. The example approach in Appendix 3 and 5 is based on weighted occupation data.

#### **4.5 Claim Rates**

40. A Member developing claim rates may need to consider how the rates should be standardised to ensure that only occupation related rate impacts are being considered. In particular, the age and gender distribution may vary by occupation level and these factors have a significant impact on rates.

#### **4.6 Most Recent 5 years**

41. The legislation requires “.....using information from the most recent 5 years in relation to Australian occupations...”. This may be read in various ways with the “most recent 5 years” being interpreted to end:
  - on the date of the certificate,
  - on the most recent 30 June (financial year), or
  - at the end of the most recent period of 5 years for which relevant data is available.

42. In relation to the first two interpretations, it is likely that there will not be information that has been collated, analysed or available in the more recent years or if there is, a material part of the claim cost derived may be from estimates of IBNR claims.

#### **4.7 Information Available**

43. There is no definitive information available on which to determine the top quintile. The Explanatory Memorandum reflects this fact. It provides examples of the types of data that could be considered:

*“Data which may be considered could include fatality data published by Safe Work Australia, claims history by occupation data and underwriting data held by insurers”*

44. The Member may be able to source other information that may inform or confirm to the Member the appropriate occupations to be classed as dangerous.
45. The lack of available information means that TPD rates may be estimated from other sources of occupation-based disability rates, as discussed in section 4.2.
46. Members may use the following sources of information to guide them for certification purposes. These sources are also relevant as a basis for cross checking other data sources. The list is not necessarily definitive. Some advantages and limitations of each source are also briefly discussed.

#### **Safe Work Australia**

47. Safe Work Australia prepares incidence rates for workplace serious claims<sup>1</sup> and workplace fatalities. Workplace serious injury rates and fatality rates are prepared at the Table 1 and 2 Sub-Major Group level respectively. Workplace serious injury rates are also prepared at the more granular Table 3 Minor Group level. The analysis uses ANZSCO occupation groups. The incidence rates are based on weighted occupation data (see Section 4.4).
48. As a reference point, and example of an approach a Member could take, a list of the top quintile occupations for fatalities and for serious claims by Sub-Major Group based on information provided by Safe Work Australia has been provided in Appendix 3. At the Minor Group level death rates are not published (as there are too few deaths to be

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<sup>1</sup> A serious claim is an accepted workers' compensation claim that involves one or more weeks away from work and excludes all fatalities, and all injuries and diseases experienced while travelling to or from work or while on a break away from the workplace. – SafeWork Australia  
<https://www.safeworkaustralia.gov.au/doc/explanatory-notes-safe-work-australia-datasets>



statistically credible), but disability rates are available and these are also shown in Appendix 3, Table 3.

49. The Safe Work Australia analysis can be found at:  
[https://www.safeworkaustralia.gov.au/resources\\_publications/Statistical-tables](https://www.safeworkaustralia.gov.au/resources_publications/Statistical-tables)
50. Advantages:
  - Appears to be the data source envisaged by the Parliament. For example, it was referenced by the Minister in Hansard “The amendments that the government has put forward are based on WorkSafe information, which actually does provide the information that you’re seeking there. That’s the best proxy we can possibly find, because essentially the data sits with the insurance company”) Hume (Victoria) on 19/09/2019 at reference (10:48).
  - Available and highly likely to be statistically credible.
  - Publicly available with no cost.
  - Provides rate of claim (incidence rate).
  - Relates to work related death and disablement.
  - Breaks out death from disablement.
  - Fewer occupations makes communication to fund members and data collection by the Trustee much simpler.
  - Includes work related mental illness claims.
  - As the certification is only comparative the serious claims experience may be a good proxy for the comparative impact of various occupations on TPD.
51. Limitations
  - Differences could be related to some extent to age and gender differences in occupations.
  - Death rates are not possible beyond the Sub-Major Group as there are very few deaths in Australia caused by the workplace and rates cannot likely be statistically credibly derived.
  - Does not directly take account of lifestyle impacts of a person's occupation, should the Member consider these relevant.
  - The data is issued up to 2 years prior to the current date.

### **Australian Taxation Office (ATO)**

52. The ATO holds TFN and stated occupation for all fund members completing a tax return. It would provide an easy match with Trustee data, which also includes the TFN of fund members, were this information to be released to Trustees, subject to possible delays in information transfer. This may provide a longer-term source of information and data but is not a currently available source.

**ABS – ANZSCO** (and see 4.3 above)

53. The ABS provides exposure data by occupation but not rates of death or disability. The ABS exposure data may not reconcile directly with Safe Work exposure because for example the Safe Work data is related to workers' compensation insurance and not all workers are covered for workers' compensation.

**Insurer and Reinsurer Occupation rating manuals**

54. Occupation rating manuals are developed by insurers and reinsurers to assist underwriting decisions and the impact of occupation. They rate occupations for death and TPD cover amongst other cover types and typically the rating includes decline, load the premium and accept at standard rates.
55. Advantages
- Can be mapped approximately to the ABS ANZSCO table 5 level and from there to higher levels of aggregation.
  - Are occupation based and specific to death and to TPD. They should reflect relatively recent experience.
  - Relevant, as they will be used if the fund member opts in to cover and underwriting is required. It may be a poor result if the legislation excludes fund members from Opt Out cover even when they are not able to Opt In (decline or loaded to an extent that makes the premium unaffordable) because their occupation is deemed too dangerous by insurers.
  - Provides a source of relevant data to reconcile to other information and analysis e.g. Safe Work Australia data. A possible methodology is set out below and an example is shown in Appendix 5. Whilst the most appropriate occupation manual may be that of the fund's current insurer, the Member may want to cross check this against another active Australian group life insurer's manual.
56. Limitations
- A weighting would most likely have to be assigned to each occupation (see Section 4.4 above).
  - It is possible that more than 20% of the occupations are shown as declined or heavily loaded and a further culling process may be required.
  - May or may not take account of lifestyle impacts of a person's occupation. The Member may want to understand the basis for the rating in the manual to make sure it is consistent with their interpretation of the SIS Act (See paragraph 30) in this respect.
  - The manuals are not necessarily based on Australian occupations which is part of the required certification.

### Age rates for death and TPD

57. It may be possible to undertake analysis of the default offering of specific industry dominated superannuation funds or those using occupation categories. This analysis may be useful in conjunction with other methods but of itself may not be sufficient to determine the top quintile.

### Subscriber data

58. Industry bodies and others produce claims analysis that may be useful.
59. An example of how this information may be used is set out below in relation to the FSC retail life insurance experience investigations. These consider occupational experience but only within the “groups”, 1 to 8, in the table below.

## 1.4 Occupation Mapping

The following table maps the occupations referred to in this report to the occupation data collected by the FSC-KPMG Experience Investigations.

*Table 1: Occupation Mapping*

Graduation Description	Coding in the FSC-KPMG	
	Data Submissions	Example Occupation
Professional	1	Accountant
White Collar	2	Bank Teller
Sedentary	3	Sales Representative
Tradesperson	4	Licensed Builder
Blue Collar	5	Air Conditioning Installer
Heavy Blue Collar	6	Roof Plumber
Other Medical	7	Podiatrist
Doctors Only	8	Anaesthetist
Professional/Medical	1, 7 and 8	
White Collar/Sedentary	2 and 3	
Blue /Heavy Blue Collar	5 and 6	
Combined White Collar	1, 2, 3, 7 and 8	
Combined Blue Collar	4, 5 and 6	

60. Those being allocated to Group 6, heavy blue collar, by each insurer will be likely to be allocated according to that insurer's occupational rating guide and are likely to be in the top quintile. When considering whether a particular occupation or group of

occupations might be certified as being dangerous the Member may then take account of:

- Safe Work Australia data (as above),
- The occupational ratings in the underwriting guide of the fund's insurer (as above),
- Any statistics that have been prepared of the experience of fund members in dangerous occupations.

#### **4.8 Period of Certificate**

61. The actuarial certificate will be valid for elections made while the data supporting the certificate is current i.e. is based on "information from the most recent 5 years"; and see Section 4.6. However, the Trustee's election is indefinite (until the Trustee withdraws it) and does not require annual certification.
62. If the top quintile occupation "list" moves over time, there is no obligation set out in the SIS legislation requiring the Trustee to update their election.
63. If an occupation moves into the top quintile it appears this could be certified, and a new election could be made by the Trustee solely in relation to that occupation without withdrawing any existing election.

## **5 Contents of Certificate**

64. The actuarial certificate could include the following:
  - a) the name of the Trustee of the fund (if an entity) or the full name of one of the names of the superannuation fund and products covered by the certificate;
  - b) Trustees of the fund, if not a corporate Trustee;
  - c) the expiry date of the certificate, reflecting the period that the Member considers the supporting information would remain valid for its purpose;
  - d) that the certificate is provided under Section 68AAF of the SIS Act;
  - e) a description of the data and information on which the actuarial certificate is based;
  - f) the list or grouping of occupations (including any additional work site situations as discussed in paragraph 29) that are certified as a Dangerous Occupation;
  - g) limitations that have not been considered (for example, Trustee obligations);
  - h) recommendations to the Trustee for improvements to data or process. for example, in relation to data, information or process that may enable an enhanced understanding of the emerging experience of the dangerous occupations relative to other occupations;

- i) the name, address and qualifications of the Member signing the certificate;
- j) the date of the certification; and
- k) the Member's signature.

**End of Technical Paper**

## **Appendix 1 - Superannuation Industry (Supervision) Act Section 68AAF**

### **68AAF Dangerous occupation exception**

- 1) The **dangerous occupation exception** applies to a member of a regulated superannuation fund to, or in respect of, whom a benefit is provided by the fund under a choice product or MySuper product held by the member by taking out or maintaining insurance if:
  - a) the Trustee or Trustees of the fund make an election under this section that members holding that product will be covered by a dangerous occupation exception if they are employed in an occupation specified in the election; and
  - b) the election is in force; and
  - c) the member is employed in an occupation specified in the election; and
  - d) it is reasonable to expect that some or all of the contributions paid into the product will be paid in respect of that employment.
- 2) The Trustee, or Trustees, of a regulated superannuation fund may elect that members holding a choice product or MySuper product specified in the election are covered by a dangerous occupation exception if they are employed in an occupation specified in the election and either:
  - a) a Fellow of the Institute of Actuaries of Australia has certified that:
    - (i) based on rates of death, or death and total and permanent disability; and
    - (ii) using information from the most recent 5 years in relation to Australian occupations;  
the occupation is in the riskiest quintile of Australian occupations; or
  - b) the occupation is as an emergency services worker (as defined for the purposes of the Work Health and Safety Act 2011).
- 3) The election must be made in writing.
- 4) The election is in force during the period:
  - (a) beginning on the day on which a copy of the election is given to APRA; and
  - (b) ending on the day on which the Trustee, or the Trustees, of the fund give APRA notice in writing that the election is withdrawn.
- 5) As soon as practicable after the election is made, a copy of the election must be:
  - (a) published on the Trustee's, or each Trustee's, website; and
  - (b) given to APRA.
- 6) Within 28 days of the dangerous occupation exception applying to a member of the fund, the Trustee or Trustees must give the member:

- (a) a notice in writing stating that the Trustee or Trustees have elected to treat the member's occupation as a dangerous occupation, and are providing the benefit under the choice product or MySuper product by taking out or maintaining insurance; and
  - (b) details of the annual cost to the member of providing the benefit under the choice product or MySuper product by taking out or maintaining insurance; and
  - (c) details of how the member may elect to have the benefit cease.
- 7) To avoid doubt, nothing in this section affects the obligations of a Trustee under the covenants referred to in section 52, or of a director of a corporate Trustee under the covenants referred to in section 52A.

## Appendix 2 – Number of Workers by Occupation

The approximate number of workers by occupation using Safe Work Australia Data 2018/19 is set out below.

	Sub-Major Group	Number of Workers (estimated)
<b>1</b>	<b>MANAGERS</b>	
	11 Chief Executives, General Managers and Legislators	106,000
	12 Farmers and Farm Managers	69,000
	13 Specialist Managers	740,000
	14 Hospitality, Retail and Service Managers	464,000
<b>2</b>	<b>PROFESSIONALS</b>	
	21 Arts and Media Professionals	66,000
	22 Business, Human Resource and Marketing Professionals	750,000
	23 Design, Engineering, Science and Transport Professionals	421,000
	24 Education Professionals	599,000
	25 Health Professionals	624,000
	26 ICT Professionals	320,000
	27 Legal, Social and Welfare Professionals	236,000
<b>3</b>	<b>TECHNICIANS AND TRADES WORKERS</b>	
	31 Engineering, ICT and Science Technicians	267,000
	32 Automotive and Engineering Trades Workers	337,000
	33 Construction Trades Workers	287,000
	34 Electrotechnology and Telecommunications Trades Workers	221,000
	35 Food Trades Workers	188,000
	36 Skilled Animal and Horticultural Workers	103,000
	39 Other Technicians and Trades Workers	157,000
<b>4</b>	<b>COMMUNITY AND PERSONAL SERVICE WORKERS</b>	
	41 Health and Welfare Support Workers	135,000
	42 Carers and Aides	579,000
	43 Hospitality Workers	322,000
	44 Protective Service Workers	155,000
	45 Sports and Personal Service Workers	193,000

	Sub-Major Group	Number of Workers (estimated)
<b>5</b>	<b>CLERICAL AND ADMINISTRATIVE WORKERS</b>	
	51 Office Managers and Program Administrators	304,000
	52 Personal Assistants and Secretaries	90,000
	53 General Clerical Workers	334,000
	54 Inquiry Clerks and Receptionists	309,000
	55 Numerical Clerks	361,000
	56 Clerical and Office Support Workers	86,000
	59 Other Clerical and Administrative Workers	261,000
<b>6</b>	<b>SALES WORKERS</b>	
	61 Sales Representatives and Agents	186,000
	62 Sales Assistants and Salespersons	709,000
	63 Sales Support Workers	230,000
<b>7</b>	<b>MACHINERY OPERATORS AND DRIVERS</b>	
	71 Machine and Stationary Plant Operators	174,000
	72 Mobile Plant Operators	151,000
	73 Road and Rail Drivers	333,000
	74 Store persons	140,000
<b>8</b>	<b>LABOURERS</b>	
	81 Cleaners and Laundry Workers	255,000
	82 Construction and Mining Labourers	165,000
	83 Factory Process Workers	209,000
	84 Farm, Forestry and Garden Workers	101,000
	85 Food Preparation Assistants	198,000
	89 Other Labourers	212,000



### **Appendix 3 – Safe Work Australia - TOP QUINTILE Occupations<sup>2</sup>**

Serious workers' compensation claims by occupation that Safe Work Australia provided from 2013-14 to 2018-19p (preliminary) were extracted by compensation authorities as at 30 November 2020 (i.e., five months after the end of the reference year). This is based on the usual practice of the National Data Set for Compensation-based Statistics (NDS) data supply. Please see [Explanatory notes: National Data Set for Compensation-based Statistics for Safe Work Australia](#) for more information.

The 2015-2019 fatality rates by occupation were extracted from our 2019 Traumatic Injury Fatality Database. This 2019 database is based on the information available about the fatalities as at September 2020. Further information about the database please refer to our [Explanatory notes: Traumatic injury fatalities for Safe Work Australia](#).

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<sup>2</sup> Safe Work Australia analysis is based on occupation data that has been coded using the Australian and New Zealand Standard Classification of Occupations (ANZSCO), which is a series of codes that display and classify all occupations in Australia and New Zealand.

**Major Group**

Clerical and administrative workers

Community and personal service workers

Labourers

Machinery operators and drivers

Managers

Professionals

Sales workers

Technicians and trades workers

**Table 1 – Top quintile of dangerous occupations (Serious Injury, by Major sub-group)**

The top quintile has been determined from the serious injury rates only.

Occupation - Sub-Major Group	SI Incidence Rate (per 100,000 workers)					Number of workers (estimated)					SI Incidence Rate	Top Quintile?	
	2014-15	2015-16	2016-17	2017-18	2018-19p	2014-15	2015-16	2016-17	2017-18	2018-19p	2014-2019p	Unweighted	Weighted
Other Labourers	5,630.0	5,980.0	5,250.0	5,410.0	4,880.0	189,609	182,692	211,238	212,384	212,090	5,409.6	Y	Y
Protective Service Workers	3,130.0	3,130.0	3,130.0	3,110.0	3,390.0	138,498	143,131	149,840	156,109	154,720	3,180.0	Y	Y
Health and Welfare Support Workers	3,090.0	2,250.0	2,660.0	2,870.0	2,730.0	110,841	131,556	120,301	115,505	135,348	2,704.7	Y	Y
Farm, Forestry and Garden Workers	2,800.0	2,560.0	2,520.0	2,800.0	2,820.0	92,321	102,539	102,778	99,464	101,418	2,697.0	Y	Y
Road and Rail Drivers	2,520.0	2,450.0	2,430.0	2,190.0	2,200.0	299,008	295,918	307,613	332,192	332,955	2,351.2	Y	Y
Construction and Mining Labourers	2,540.0	2,500.0	2,250.0	2,210.0	2,460.0	133,661	138,200	149,556	162,896	165,447	2,385.4	Y	Y
Factory Process Workers	2,260.0	2,230.0	2,050.0	2,070.0	2,140.0	204,646	197,534	203,659	205,556	209,346	2,149.4	Y	Y
Storepersons	2,160.0	2,220.0	2,070.0	2,060.0	2,170.0	134,722	123,649	127,536	133,010	140,092	2,135.8	Y	Y
Machine and Stationary Plant Operators	2,280.0	2,110.0	2,040.0	2,040.0	1,930.0	153,289	153,791	154,902	158,088	174,093	2,075.8		Y
Construction Trades Workers	2,120.0	1,940.0	2,030.0	1,940.0	1,920.0	236,321	250,773	249,754	278,866	286,719	1,985.5		Y
Skilled Animal and Horticultural Workers	1,920.0	2,140.0	1,940.0	1,740.0	1,960.0	95,313	90,187	101,804	108,046	103,316	1,933.2		Y
Mobile Plant Operators	1,720.0	1,770.0	1,720.0	1,490.0	1,420.0	127,907	117,514	121,221	130,201	151,056	1,612.9		Y
Automotive and Engineering Trades Workers	1,620.0	1,550.0	1,630.0	1,490.0	1,590.0	354,321	331,613	313,190	338,255	337,421	1,575.7		Y

Unweighted refers to top quintile based on number of Occupation Sub-Major Groups

Weighted refers to top quintile based on number of employees in each Occupation Sub-Major Group as a percentage of the total estimated labour force.

This table excludes deaths attributable to diseases, natural causes, suicides and deaths of people undertaking criminal activity.

Please note that each year Safe Work updates the data in the National Dataset for Compensation-Based Statistics. This includes adding the preliminary year (e.g. 2018-19) and adjusting previous years (e.g. 2017-18 and earlier), meaning that the claims data has been updated since Safe Work released the 2011/12-2015/16 data in April 2018.

Source: Work-related Traumatic Injury Fatalities database, Safe Work Australia. Explanatory notes are available on the following webpage:

<https://www.safeworkaustralia.gov.au/doc/explanatory-notes-safe-work-australia-datasets>

**Table 2– Top quintile of dangerous occupations (Death ONLY, by Major sub-group)**

- Category**
- Clerical and administrative workers
- Community and personal service workers
- Labourers
- Machinery operators and drivers
- Managers
- Professionals
- Sales workers
- Technicians and trades workers

Occupation - Major Sub-Group	Fatality Rate (per 100,000 workers)					Number of workers (estimated)		5 year average Fatality Rate		Top Quintile?	
	2015	2016	2017	2018	2019	2018-19p		2015-2019		Unweighted	Weighted
Farmers and Farm Managers	16.8	14.9	14.2	9.1	12.8	69,167		13.6		Y	Y
Road and Rail Drivers	14.3	15.2	12.1	9.7	15.2	332,955		13.3		Y	Y
Farm, Forestry and Garden Workers	14.6	12.4	14.9	10.8	3.6	101,418		11.3		Y	Y
Other Labourers	5.9	6.4	8.1	5.6	7.4	212,090		6.7		Y	Y
Mobile Plant Operators	13.1	6.5	2.3	6.2	3.8	151,056		6.4		Y	Y
Construction and Mining Labourers	6.3	7.8	7.2	4.3	3.5	165,447		5.8		Y	Y
Machine and Stationary Plant Operators	5.1	3.2	4.3	3.6	3.4	174,093		3.9		Y	Y
Electrotechnology and Telecommunications Trades Workers	3.3	2.9	0.8	4.6	3.3	221,354		3.0		Y	Y
Skilled Animal and Horticultural Workers	1.7	4.1	1.5	2.2	2.2	103,316		2.3			Y
Sports and Personal Service Workers	3.1	0.5	3.4	1.0	2.2	192,949		2.0			Y
Construction Trades Workers	3.0	3.2	1.8	0.7	1.5	286,719		2.0			Y
Design, Engineering, Science and Transport Professionals	1.6	2.0	3.4	1.6	1.5	420,968		2.0			Y

Unweighted refers to top quintile based on number of Occupation Sub-Major Groups

Weighted refers to top quintile based on number of employees in each Occupation Sub-Major Group as a percentage of the total estimated labour force.

This table excludes deaths attributable to diseases, natural causes, suicides and deaths of people undertaking criminal activity.

Please note that each year Safe Work updates the data in the National Dataset for Compensation-Based Statistics. This includes adding the preliminary year (e.g. 2018-19) and adjusting previous years (e.g. 2017-18 and earlier), meaning that the claims data has been updated since Safe Work released the 2011/12-2015/16 data in April 2018.

Source: Work-related Traumatic Injury Fatalities database, Safe Work Australia. Explanatory notes are available on the following webpage:

<https://www.safeworkaustralia.gov.au/doc/explanatory-notes-safe-work-australia-datasets>

**Table 3 – Top quintile of dangerous occupations (Serious Injury only, by minor sub-group)**

**Category**

Clerical and administrative workers

Community and personal service workers

Labourers

Machinery operators and drivers

Managers

Professionals

Sales workers

Technicians and trades workers

per 100,000 employees

Occupation - Minor Sub-Group	Number of serious claims <sup>1</sup>					Incidence rate (serious claims per 1000 employees) <sup>3</sup>					Number of workers (estimated)					Estimated Incidence Rate	Top Quintile?	
	2011-12	2012-13	2013-14	2014-15	2015-16p	2011-12	2012-13	2013-14	2014-15	2015-16p	2011-12	2012-13	2013-14	2014-15	2015-16p	2011-2016	Unweighted	Weighted
Defence force members, fire fighters and police	2,850	3,020	2,960	3,005	2,620	46.6	41.7	39.3	42.4	35.2	61,113	72,497	75,375	70,918	74,408	4,079.7	Y	Y
Animal attendants and trainers, and shearers	760	810	795	755	815	34.5	32.4	33.9	32.6	35.7	22,060	24,988	23,436	23,153	22,861	3,377.7	Y	Y
Machine operators	2,255	1,760	1,780	1,800	1,595	36.7	29.2	33.4	35.3	29.4	61,406	60,351	53,226	51,021	54,169	3,280.1	Y	Y
Truck drivers	5,845	5,385	5,460	5,160	4,750	37.3	30.5	32.5	27.6	25.9	156,856	176,790	167,749	186,877	183,389	3,051.6	Y	Y
Health and welfare support workers	3,875	3,965	3,600	3,610	2,835	33.3	35.6	30.8	32.6	21.5	116,517	111,419	116,995	110,743	131,883	3,044.0	Y	Y
Farm, forestry and garden workers	2,885	2,890	2,645	2,645	2,575	31.5	36.3	29.9	28.7	25.1	91,459	79,700	88,584	92,221	102,687	3,000.1	Y	Y
Delivery drivers	1,280	1,250	1,080	1,160	1,230	30.2	31.6	27.5	26.7	26.1	42,377	39,547	39,344	43,440	47,164	2,831.9	Y	Y
Construction and mining labourers	4,280	3,825	3,630	3,545	3,495	31.4	28.9	27.2	26.6	25.3	136,163	132,296	133,321	133,482	138,098	2,788.3	Y	Y
Food process workers	2,510	2,145	2,050	1,835	1,620	33.7	33.7	28.9	23.1	20.8	74,579	63,599	70,960	79,383	78,065	2,771.5	Y	Y
Fabrication engineering trades workers	2,535	2,430	2,090	1,860	1,705	30.5	28.7	25.2	23.0	23.0	83,096	84,681	82,861	80,956	74,063	2,618.0	Y	Y
Bricklayers, and carpenters and joiners	2,695	2,435	2,350	2,535	2,465	28.6	25.2	23.1	24.9	23.4	94,105	96,625	101,730	101,877	105,269	2,498.0	Y	Y
Prison and security officers	1,990	1,820	1,775	1,480	1,590	29.7	26.7	23.4	21.9	23.3	67,090	68,270	75,830	67,607	68,341	2,493.2	Y	Y
Storepersons	3,515	3,195	3,115	2,980	2,685	29.4	26.3	24.7	22.2	21.7	119,724	121,495	126,259	134,469	123,500	2,476.6	Y	Y
Air and marine transport professionals	620	670	625	690	535	24.7	23.6	22.4	30.7	22.4	25,090	28,393	27,846	22,448	23,904	2,459.3	Y	Y
Personal carers and assistants	6,455	5,980	5,500	5,270	5,055	27.1	23.7	21.3	19.9	17.9	238,021	252,050	258,465	264,362	283,142	2,180.5	Y	Y
Glaziers, plasterers and tilers	875	805	765	780	855	20.7	23.1	19.0	18.4	18.1	42,272	34,792	40,159	42,377	47,212	1,972.8	Y	Y
Mobile plant operators	2,910	2,740	2,500	2,245	2,045	21.9	19.9	19.4	17.5	17.3	133,130	137,797	129,103	128,055	117,962	1,925.6	Y	Y
Automobile, bus and rail drivers	1,540	1,525	1,280	1,190	1,085	23.3	22.8	16.9	17.1	16.2	66,108	66,899	75,893	69,403	67,141	1,916.4	Y	Y
Automotive electricians and mechanics	1,840	1,765	1,845	1,760	1,580	22.4	21.0	18.8	17.4	16.3	82,227	84,014	98,331	101,231	96,813	1,900.1	Y	Y
Plumbers	1,205	1,185	1,160	1,150	1,095	19.3	18.2	18.7	17.6	16.1	62,339	65,204	62,085	65,326	68,042	1,794.1	Y	Y
Wood trades workers	450	450	370	435	460	17.8	19.5	13.6	17.1	18.2	25,342	23,133	27,216	25,462	25,223	1,713.1	Y	Y
Horticultural trade workers	1,305	1,175	1,190	1,115	1,115	18.1	15.7	16.5	15.5	16.5	72,038	75,073	72,025	71,832	67,439	1,646.2	Y	Y
Cleaners and laundry workers	4,785	4,340	3,910	3,590	3,490	19.8	17.3	15.6	15.3	14.2	241,367	251,049	250,624	235,060	245,333	1,644.1	Y	Y

Unweighted refers to the top quintile of dangerous occupation Major Sub-Group, by number of Major Sub-Groups

Weighted refers to the top quintile of dangerous occupation Major Sub-Group, by number of workers

**Notes:**

1. A serious claim is an accepted workers' compensation claim that involves one or more weeks away from work and excludes all fatalities, and all injuries and diseases experienced while travelling to or from work or while on a break away from the workplace.

3. Incidence rate is expressed as number of serious claims per 1,000 employees.

The claim numbers are rounded to the nearest 5 to maintain confidentiality. Therefore, the sum of claims may not be equal to the reported totals.

p data are preliminary and are subject to revision.

\* rate should be interpreted with caution because the relative standard error of the denominator is between 25% and 50%.

Source: National Data Set for Compensation-Based Statistics, Safe Work Australia. Explanatory notes are available on the following webpage:

<https://www.safeworkaustralia.gov.au/doc/explanatory-notes-safe-work-australia-datasets>

## Appendix 4 - Potential Considerations

This appendix is provided to Members to assist them to understand some of the issues facing Trustees in relation to the legislation. It is supplementary information provided to assist Members with the context in which they may be asked for advice on dangerous occupations. The points discussed in the appendix are not advice to Trustees and are not legal advice.

### 1. SIS Covenants

Trustees when determining their death and disability benefit design balance the covenants within the SIS Act, the relevant covenants being:

**Inappropriate Erosion** - ensure that the insurance cover provided does not inappropriately erode fund members' account balances as required by SIS ("... to only offer or acquire insurance of a particular kind, or at a particular level, if the cost of the insurance does not inappropriately erode the retirement income of beneficiaries").

**Appropriate Cover** - Provide cover that is appropriate ("to formulate, review regularly and give effect to an insurance strategy for the benefit of beneficiaries of the entity that includes provisions addressing each of the following matters:

- (i) the kinds of insurance that are to be offered to, or acquired for the benefit of, beneficiaries;
- (ii) the level, or levels, of insurance cover to be offered to, or acquired for the benefit of, beneficiaries;
- (iii) the basis for the decision to offer or acquire insurance of those kinds, with cover at that level or levels, having regard to the demographic composition of the beneficiaries of the entity.....")

**Members' Best financial interests** - act in fund members' best financial interests ("to perform the Trustee's duties and exercise the Trustee's powers in the best financial interests of the beneficiaries").

### 2. Impact of the Legislation on Cover and Premium Rates

Trustees will likely consider the impact on the cover provided and the impact on premium rates for all fund members, particularly under the fund members' best financial interest requirements of SIS, when deciding whether or not to proceed with an election and actuarial certification.

#### Availability of Alternative Cover

To the extent the fund member is unable to obtain cover (or obtain cover at reasonable rates) then the Trustee may decide that providing appropriate Opt Out cover is of higher importance in terms of fund members' best financial interests than the cost of premiums and the impact this has on the ultimate retirement benefit.

### **Young and Low Account Fund Members**

The impact of the legislation for some young and low account fund members may extend well beyond the time the fund member meets the criteria for Opt Out cover to commence. Cover at this point may be restricted to future events cover only for a period or in some cases forever depending on the circumstances of the fund member and the terms of the insurance policy covering the fund member. These restrictions may be more severe than for Opt Out cover. A fund member who suffers an injury or illness prior to cover commencement that manifests itself as a claim after cover commences may find their claim declined under these circumstances.

Similarly, young and low account fund members who apply for cover may, on being underwritten, be declined cover or an exclusion applied to their cover or premiums loaded. They are likely to be required to disclose this underwriting decision in any future application for cover whether with the fund, another fund or for an individual policy outside superannuation and this may impact their ability to obtain cover at reasonable rates or at all, in the future.

### **Impact on premium rates**

A Fund providing Opt Out cover to all members is likely to have different premium rates and/or eligibility conditions compared with a design that involves a mix of Opt Out and Opt In cover. This impact may be different across a fund's membership. Some examples of the impact are set out below.

- i. One of the key features of Opt Out cover that allows it to be provided automatically and at low rates is that it is provided to all fund members and is provided at the time the fund member commences employment. This ensures a pool of lives is covered where there is:
  - a) little or no opportunity for anti-selection on the timing of when cover commences; and
  - b) the new insured lives are relatively healthy as they have recently secured employment.

The legislation has broken this nexus for new members. As such, apart from a possible small window at commencement of membership, fund members who Opt In will not receive cover on the same automatic terms as currently apply or if they do it is likely premium rates (for all fund members) will increase to cover the additional claim rates that are likely when a) and b) are removed.

- ii. Opt In fund members may be required, perhaps after an initial “window”, to undergo underwriting before cover is provided or have their cover restricted to future events cover only for a period at commencement as outlined in 1. above. Underwriting is a relatively costly method of providing cover and the additional costs may be reflected in premium rates. On the other hand, these fund members should, for a period, have lower claim rates which may lead to lower rates.
- iii. In some funds with a mix of default fund members in dangerous and other occupations, the loss of the fund members in lower risk occupations from the pool of insured lives may impact on the overall risk profile of insured fund members. Depending on the extent of the fund's membership in a dangerous occupation, this could impact on the premium rates charged to fund members (either those in a dangerous occupation, or the overall membership depending on the structure of the Trustee's insurance arrangements).
- iv. The lower premium volumes resulting from the legislation may lead to higher premium rates as the fixed expenses associated with the provision of death and disability benefits will be spread over a lower base.

### **3. Knowing the fund members' occupation on joining**

Whilst there is a field that allows employers to supply occupation information (free form) to the fund under SuperStream, it is not one of the mandated fields. Most Trustees will not hold this information for all their fund members. If an employer supplies this information, it must be accessed and loaded as a field within the Trustee's record keeping system which may not currently record this information.

For those fund members who complete an application for membership, occupation data may be available at least going forward as the question is asked of the new fund member.

Trustees who have made an election may need to consider what to do in relation to cover for fund members where the employer does not provide occupation data or provides incorrect data when the fund member first joins the fund, or within the timeframe before the insurer applies underwriting and/or cover restrictions and the Trustee is unable to obtain this from the fund member. This may include developing a policy on cover and premium refunds and the associated communication to fund members.

### **4. Determining the dangerous occupations on the Trustee's exception election**

The Member will most likely work closely with the Trustee on the occupation list and how many occupations to include in the list given the circumstances of the Trustee and the fund.

It may be more helpful for fund members if the occupations listed in a Trustee's election are fewer and broad rather than many and specific. This also makes communication to fund members and employers simpler.

## **5. Misclassification of occupation**

Trustees who make an election may seek occupation data from employers and new fund members and may also develop processes and procedures to address issues of occupational misclassification, not unlike the process that has existed in group insurance for decades in relation to incorrect date of birth data.

## **6. Fund member communications**

Trustees, whether they make an election or not, will have significant additional fund member communication obligations. The communication associated with dangerous occupation is summarised in Section 2.2.

## **7. Working with Employers**

Trustees may want to work with larger employers to ensure that SuperStream data includes occupational category and standardise the descriptions used to enable the fund's administrator to efficiently identify the occupation of fund members. Even for Trustees that do not make an election this data will be very useful when reviewing their decision in future years.

Trustees may offer employers the ability to pay the premiums for employees under age 25. These rates are low relative to older ages, and this will ensure the employee is covered and has full continuity of cover at age 25 (where their account balance exceeds \$6,000 which should be most fund members, particularly with the consolidation of accounts activity that is occurring now).

This process may be extended to new employees while they are in the process of consolidating their accounts or for a period as their account balance grows through contributions.

## **8. Multiple Occupations**

Some fund members will have more than one occupation, one or more of which could be dangerous. If it is reasonable to expect that some or all the contributions of the fund member will relate to employment in the dangerous occupation, the fund member will receive Opt Out cover (if the Trustee has made the election).

## **9. Trustees who currently exclude dangerous cover occupations from Opt Out cover**



Some Trustees currently exclude some dangerous occupations from Opt Out cover. These Trustees will need to consider how these fund members are to be treated if an election is made.

## **10. APRA**

APRA is supporting the industry through:

- a) FAQs and letter to Trustees.
- b) Dangerous occupation election and withdrawal templates.
- c) APRA has confirmed that:
  - o for Trustees with multiple funds, a separate election is required for each fund.
  - o the \$6,000 account balance test is account based rather than product based, as suggested by the SIS Act.

## **Appendix 5 – Mapping Occupations**

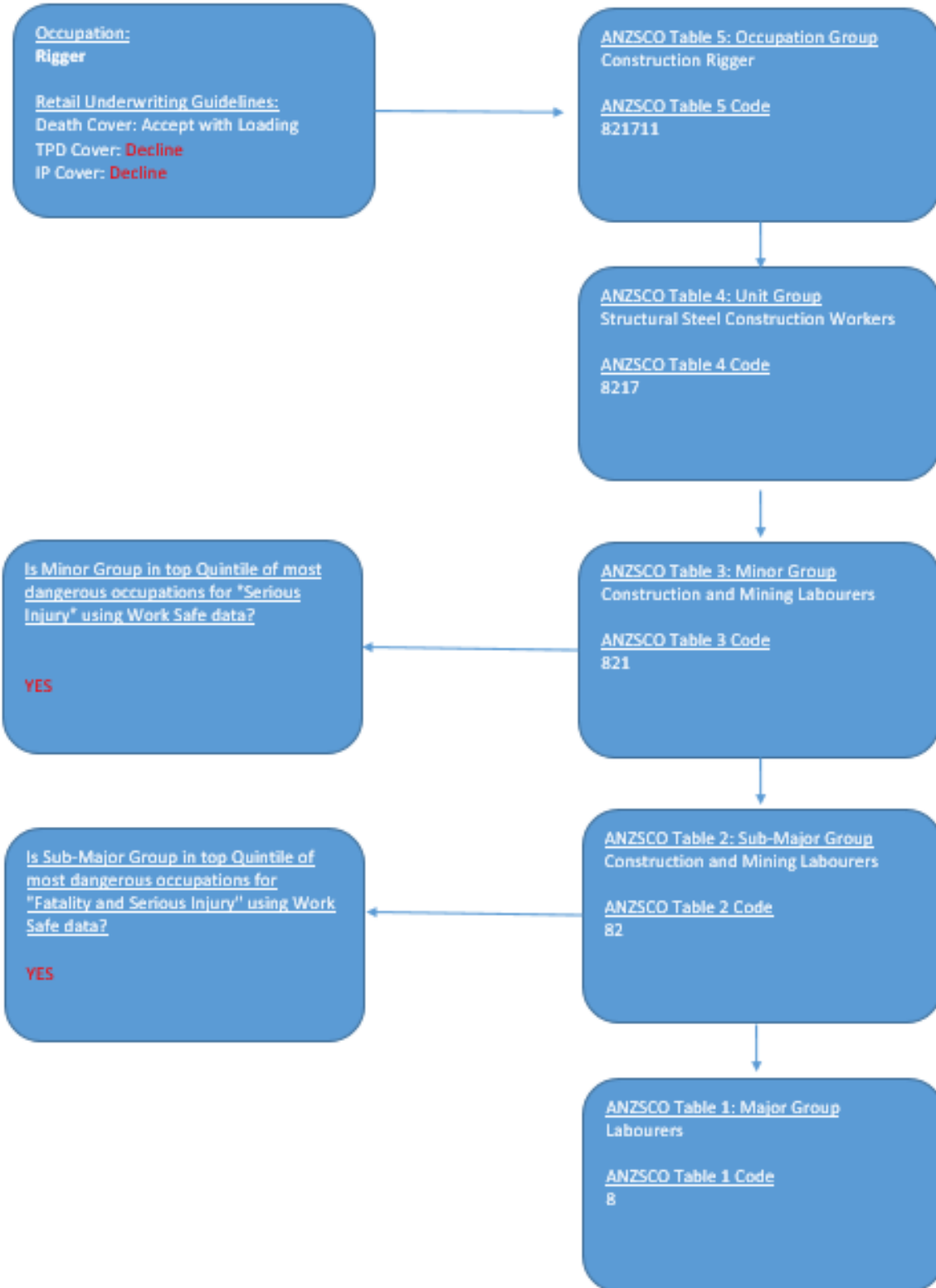
Below is an example of the mapping of a specific occupation to the higher ANZSCO sub-categories of occupation.

The examples illustrate the complexity facing the Member in performing the assessment of whether an occupation would qualify for the dangerous occupation exception given the publicly available data.

In Example 1 we have an occupation (Rigger) which maps to an ANZSCO Sub Major and Minor Group which is in the top quintile of most dangerous occupations by Work Safe Australia data and so would appear to directly meet the requirements for the dangerous occupation exception.

However, in Example 2, we have an occupation (Linesworker) that would be declined for individual retail TPD/IP cover (according to a selected retail underwriting guide) but which does not map to an ANZSCO Sub-Major or Minor Group which is in the top quintile. The Member may decide in this example that the occupation is in the top quintile based on the proportion of occupations in the Decline category and that if Safe Work Australia analysis did go to this level it would likely support the decision.

**Example 1: Rigger**



**Example 2: Linesworker (telecommunications):**

