

# **International students as young migrant workers in South Australia: The role of the University in occupational health and safety awareness and education**

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for the degree of Doctor of Philosophy



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## **Declaration**

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# **Abstract**

## ***Problem Statement***

Despite the possibility of major under-reporting, young workers are over-represented in injury statistics. Among this group are international students, who constitute a significant and rising proportion of young workers in part-time, casual or seasonal jobs. International students may be at greater risk for occupational injury than their domestic peers because of cultural issues, language barriers, financial pressures and the nature of the work available to them. Thus, they represent a vulnerable segment of the workforce. There is a need to better understand their risk profile and develop evidence-based interventions to reduce risk.

## ***Gap Analysis***

There is a substantial body of literature on young workers, including migrant workers. However, limited research has been conducted regarding international students as a vulnerable subpopulation in the Australian workplace context. Furthermore, the role of the university as a potential (or actual) provider of occupational health and safety (OHS) awareness and education for international students has been poorly explored.

## ***Purpose Statement***

The ultimate goal of this research is to reduce accident and injuries among international students as young migrant workers. The aims are to explore their work experiences while studying at university, and understand their perspectives on OHS, including the role of the university in occupational illness and injury prevention.

## ***Research Questions***

Two broad two research questions are proposed:

1. What are the work health and safety experiences of international students as young migrant workers?
2. What is the role of the university in terms of OHS awareness raising and education among international student employees?

## ***Methodology***

Four complementary approaches were employed to answer the research questions. These comprised two statistical reviews and two empirical studies in a parallel mixed methods research design.

### 1. Statistical reviews:

- a. *Injury claims experience from South Australian Workers Compensation data (2004-2013)*. For the purpose of this statistical review, an international student was defined as a worker between the ages of 15-24 years who was non-Australian born and of non-English speaking background.
- b. *Working experience from the 2013 University of Adelaide International Student Barometer (ISB) Survey*. The survey is run on a regular basis to gauge perceptions and to improve services for enrolled international students.

### 2. Empirical studies

- a. *An online questionnaire survey of international students at the University of Adelaide*. This was designed to explore working experiences, injury experiences and work-study interference.

- b. *A qualitative focus group study of international students at the University of Adelaide.* This explored the perceived current practice of OHS education in the University and its potential injury-preventive role for work outside of the University.

### ***Main Findings***

#### Statistical reviews of workers compensation data and ISB survey data

Young workers were more likely to experience serious injuries if they were: Non-Australian born, Odds Ratio (OR) = 1.20 (CI: 1.07-1.35); Non-English speaking background (NESB), OR= 1.38 (CI: 1.09-1.76); Older young workers (20-24 yr old), OR =1.38 (1.29-1.47); Female, OR =1.51 (1.41-1.61); Outdoor workers OR= 1.87 (1.73-2.02). These data are consistent with international students being at greater risk compared to local young workers.

The majority of participants in the ISB 2013 survey (n=656) reported that they were being underpaid. Male students were more likely to be in paid employment compared to females, who were more likely to be in a voluntary job. In addition, this study found a gap between male and female overseas students concerning their average income.

#### Online survey of international students

This study (n=466) found international students worked in part-time jobs (55.3%), casual (39.2%) and seasonal employment (5.4%). The majority were engaged in restaurants (42.1%), supermarkets or grocery stores (21.1%) and in cleaning jobs (12.6%). Sixty percent reported that they did not receive any OHS training before commencing the work and 10% reported that they had experienced an injury in an Australian workplace. Of those with OHS training, 43% experienced



injury after the training. About 65% of students felt that work adversely impacted on study, with tiredness being the main form of interference.

Injury experience and perceptions of work-study interference were modelled with logistic regression. Significant predictors of injury were working 20 hours or more per week, adjusted odds ratio (AOR) = 2.20 (CI: 1.03-4.71); lack of confidence in discussing OHS issues, AOR = 2.17 (CI: 1.13-4.16); a perception of unfair wages or feeling exploited, AOR = 2.42 (CI: 1.24-4.71); and being a second year student in either undergraduate or postgraduate programs, AOR = 2.69 (CI: 1.04-6.96). For work-study interference, the corresponding variables were working 20 hours or more per week, OR=1.91 (CI: 1.08-3.41); a perception of unfair wages, OR=1.89 (CI: 1.31-2.75); being a second year student, OR= 1.80 (CI: 1.02-3.18); being a holder of a partial scholarship, OR=1.98 (CI: 1.14-3.43); and lack of confidence in discussing OHS issues, OR=2.05 (CI: 1.41-2.99).

#### Focus group discussions

This study (3 groups, n=21) found that international students had multiple reasons to work while studying, and it was not all about earning money. Improving their English, adapting to Australian culture and making friends were cited as other reasons to work.

There were mixed experiences relating to work-study interference. Some participants revealed that they had experienced negative impacts of long working hours on study. However, other students argued that there was reduced impact when the jobs were flexible, were undertaken in a vacation period, on the weekends, or when the working hours did not exceed 20 hours a week.

Similarly, there were mixed views regarding OHS. Some participants were not concerned about the risks, even if they understood the hazard.

Student perspectives on OHS training and education tended to be shaped by their experiences and study backgrounds. With regard to the current University of Adelaide practices on OHS education, it was found that there was a different emphasis between the schools of engineering and social sciences. The participants recalled OHS information and education being provided but felt that this tended to focus on student security and safety around the University environment. Participants felt that there was little or no consideration of work outside of the University. Some suggested that the institutional concern about students' working life should be raised from "zero" to "hero". The University should better prepare international students to work in the community as part of its social responsibility and duty of care. The role of the University was to provide generic or basic knowledge such as workers' rights and responsibilities. However, this could never replace specific on-the-job training provided by employers.

### ***Novelty and Implications***

This research is the first to explore the combination of international students' working experiences, injury experiences, work-study interference and perspectives on the role of the University in preventing injuries in students' working life.

The findings from statistical reviews and the online survey provide new evidence about international student vulnerabilities in the workplace. When these findings were integrated with the qualitative data, a conceptual framework for the prevention of injury was derived, identifying the University as a key stakeholder.

Finally, the research provides new evidence for improving the effectiveness of OHS education for international students.

### ***Conclusions and Recommendations***

On the basis of this research, it is clear that international students have multiple vulnerabilities and that there are particular risk factors for occupational injury and work-study interference. Students expressed the view that the University should do more to support their work activity while studying. It is highly likely that the findings from the University of Adelaide can be generalised to other universities. Universities are effectively sponsors of students into the local community, but have a limited awareness of their contribution to the local workforce. As such, there is a social responsibility which extends beyond academic and social support to encompass work life. A better understanding of work arrangements may also improve academic performance.

A series of recommendations are made for the universities, OHS regulators, ISB providers and future researchers. These include:

- better preparation of international students for integration into workplaces;
- regulation of the hours of work and the prevention of exploitation;
- continued use of the ISB as one means of monitoring student work experience, and benchmarking across universities and states;
- a longitudinal study of international students; and
- exploring the perceptions of academics and university administrators to complement the findings from students.

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## Abbreviations

|         |   |
|---------|---|
| ABS     | Australian Bureau of Statistics   |
| AEI     | Australian Education International                                      |
| ASSE    | American Society for Safety Engineers                                   |
| AOR     | Adjusted Odds Ratio   |
| CI      | Confidence Interval   |
| CRICOS  | Commonwealth Register of Institutions and Courses for Overseas Students |
| DECS    | Department for Education and Children Services                          |
| DFAT    | Department of Foreign Affairs and Trade                                 |
| DIAC    | Department of Immigration and Citizenship                               |
| DEEWR   | Department of Education, Employment and Workplace Relations             |
| EAP     | English for Academic Purposes   |
| EEWR    | Education, Employment and Workplace Relations                           |
| ELICOS  | English Language Intensive Courses for Overseas Students                |
| ESB     | English Speaking Background   |
| ESOS    | Education Services for Overseas Students                                |
| EU-OSHA | European Agency for Safety and Health at Work                           |
| FGD     | Focus Group Discussion  |
| HREC    | Human Research Ethics Committee   |
| ILO     | International Labour Organization                                       |
| ISS     | International Student Survey  |
| IBP     | Integrated Bridging Program   |
| ISB     | International Student Barometer   |

|        |  |
|--------|--|
| ISC    | International Student Centre                                     |
| IWH    | Institute of Work and Health, Canada                             |
| NHMRC  | National Health and Medical Research Council                     |
| NESB   | Non-English Speaking Background                                  |
| NIOSH  | U.S. National Institute for Occupational Safety and Health       |
| OHS    | Occupational Health and Safety                                   |
| OHS&W  | Occupational Health, Safety and Welfare                          |
| OHSW   | Occupational Health, Safety and Welfare                          |
| OR     | Odds Ratio   |
| RQ     | Research question  |
| SA     | South Australia  |
| SPSS   | Statistical Package for the Social Sciences                      |
| SWSA   | SafeWork SA  |
| TAFE   | Technical and Further Education                                  |
| TOOCS  | Type of Occurrence Classification System                         |
| UK     | United Kingdom   |
| UKCISA | United Kingdom Council for International Student Affairs         |
| UNESCO | United Nations Educational, Scientific and Cultural Organisation |
| USA    | United State of America  |
| VET    | Vocational Education and Training                                |
| WHO    | World Health Organisation  |

## **Thesis Overview**

### **Research Title:**

International students as young migrant workers in South Australia: The role of the University in OHS awareness and education

### **Research aim**

This research employs a mixed method approach to understand work health and safety experiences among international students as young migrant workers in South Australia (SA) and to identify the role the university potentially plays in providing effective occupational health and safety (OHS) awareness and education for international students.

### **Thesis outline**

For the first part of this research, a literature review was conducted to identify research gaps and develop the research questions. Following the literature review, three studies were carried out to answer the research questions.

The first study was a pair of statistical reviews using secondary data analysis. The first dataset was a ten-year period of the Workers' compensation data from SafeWork SA (SWSA) from 2004-2013 to explore young migrant workers' (non-Australian born) serious injury experiences in South Australia. The second dataset is the International Student Barometer (ISB) 2013 data to describe information regarding international students' working experiences focusing on working hours and rate of payment.

The second study was an online survey to explore international students' working experiences and its association with health and safety issues and work-study interference.

The third study utilised a qualitative approach. Focus group discussions were conducted to explore international students' perspective of the role of the university in terms of raising OHS awareness and education.

The last part of this research comprised general discussion and conclusions and recommendations. This part outlines two conceptual frameworks (the layers of international students' vulnerabilities; and effective OHS education for international students in the university sector), future research needs and recommendation for improvement flowing from the research. The detail of each chapter is as follows:

### **Chapter 1. Introduction**

This chapter provides an explanation of what of this research has concerned with, the research background such as the benefits of international students engagement, international student profiles, the legislative frameworks of education provided for international students' health and safety welfare, international students' rights to work and the research aim and objectives.

### **Chapter 2. Literature review**

This chapter provides the review of the literature to identify the research gaps and research questions development. This includes a review of migrant workers health and safety, young workers health and safety and international students as a working population.

### **Chapter 3. Statistical reviews (Study 1)**

The chapter provides an analysis of the South Australian workers' compensation dataset between 2004 and 2013. The focus was on young workers, those who were migrants and those who first language was not English. The

analysis entails investigation of time trends, injury profiles, risk factors and the relative proportion of serious claims against total claims.

Turning specifically to international students, the International Student Barometer (ISB) 2013 data was explored focusing on international students' working hours and rate of payments.

#### **Chapter 4. International student online survey (Study 2)**

This chapter profiles the characteristics of international student workers by demographics, academic backgrounds, working experiences, OHS training experiences, injury experiences, work-study interference and their perception of the role of the University in OHS education.

Bivariate and multivariate analysis were conducted to identify the risk factors and important predictive factors for the outcome variables; students' health and safety issues and work-study interference.

#### **Chapter 5. International students' perspective on the role of the university in OHS awareness and education (Study 3)**

This chapter presents international students' perceptions of the concept of OHS education and training in the University. Furthermore, the current practices of OHS education, materials and curriculum and the role of the university in terms of OHS awareness raising and education together with recommendations to the University to improve the situation were explored.

#### **Chapter 6. General discussion**

This chapter critically assesses the previous studies related to serious injury profile of young non-Australian born workers, international students' working experiences and injury experiences, the factors associated with health and safety



issues and work-study interference and international students' perspectives on the role of the University in OHS awareness and education. This chapter also discusses the importance of the findings in comparison with other research. Furthermore, the chapter proposes the development of a conceptual framework of young migrant workers vulnerability. And lastly, this chapter develops a conceptual framework for effective OHS education for international students in the University sector based on the research findings and other literature.

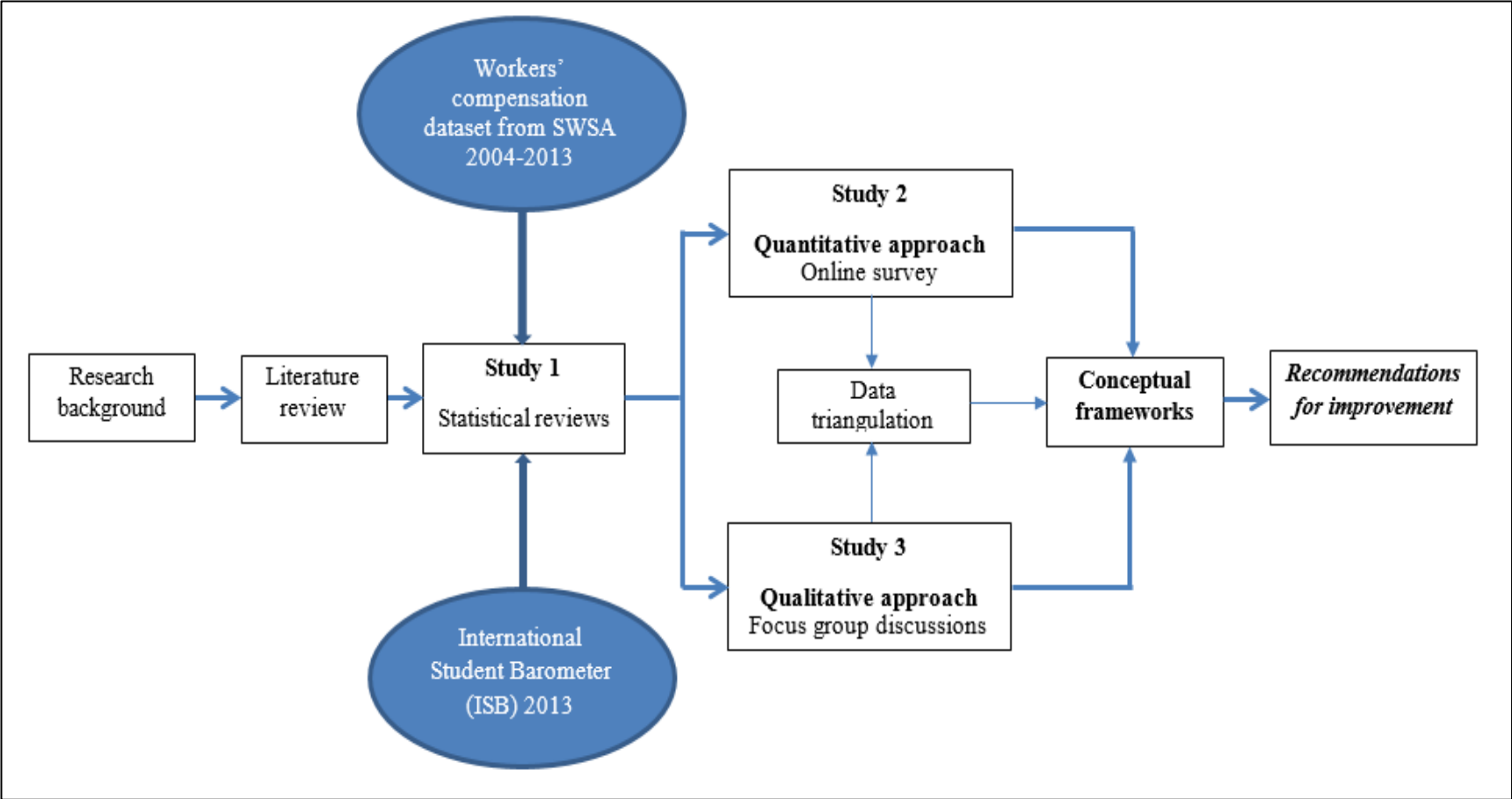
### **Chapter 7. Conclusions and recommendations**

This chapter concludes all study findings and provides suggestions for future research needs together with recommendations to improve work health and safety among international students in the workplace.

## Thesis Layout

| CHAPTERS  | DETAILS  | OUTCOMES  |
|---|--|---|
| Thesis overview   | → Thesis organization  | → Guiding readers to understand research structure and research focus areas of this thesis  |
| Chapter 1<br>Introduction   | → The nature of international students as working population   | → Providing an account of the benefits of international education engagement, the responsibilities of education providers, and the rights of international students to work |
| Chapter 2<br>Literature review  | → Research context and research significance   | → Identification of research gaps and research questions  |
| Chapter 3<br>Statistical reviews  | → The situation of young migrant workers' health and safety in SA and international students' in paid job                  | → Producing a statistical analysis on injury among young migrant workers in SA and a descriptive analysis of international students' working hours and rates of payment     |
| Chapter 4<br>International student online survey  | → International students' working experiences, OHS training, health and safety issues, and work-study interference         | → Identification of predictive factors associated with international students' injury experiences and work-study interference due to having a paid employment               |
| Chapter 5<br>International students' perspective on the role of the university in OHS awareness and education | → International students' perspective on OHS education and their perception of the role of the university in OHS education | → Identification of international students' story about the current practices of OHS education and their perception of the role of the university in OHS education          |
| Chapter 6<br>General discussion   | → Main findings of the studies in the context of existing literature   | → Presenting reflections of the studies significance and providing conceptual frameworks  |
| Chapter 7<br>Conclusions and recommendations  | → Conclusions of the research findings and opportunities   | → Providing recommendations for development and further research directions   |

**Research framework**



# Chapter 1

## INTRODUCTION

# **CHAPTER 1. INTRODUCTION**

## **1.1 Research background**

This section provides a background to the research. It starts with the benefits of international education for Australia. This is followed by a description of international students, including definitions, their employment rights, and their potential vulnerability. This section also reviews the legislative frameworks and responsibilities of education providers for international students.

### **1.1.1 The benefits of international education engagement**

Australia is the third most popular destination countries for study after the USA and UK (Study Australia, 2015). According to the UNESCO Institute for Statistics (2014), in 2013 Australia hosted around 6% of total international students from all over the world.

The high number of international students coming to Australia certainly provides benefits for the country. International students provide important contributions to the university life in Australia and to the Australian economy. At the university level, they contribute shared experiences from different backgrounds and cultures and create opportunities for university staff to expand their knowledge and skills to provide better educational systems and enrich educational experiences for domestic Australian students (Lebcir et al., 2008; Lawson, 2012).

At the national level, international students enrich Australian communities and contribute to the Australian economy as the third biggest export sector, generating approximately AU\$16.6 billion per year and creating about 125,000 jobs across Australia (Hare, 2015; Floyd, 2015). Figure 1.1 provides information

regarding Australia's export income from education services (Department of Education and Training, 2015a).

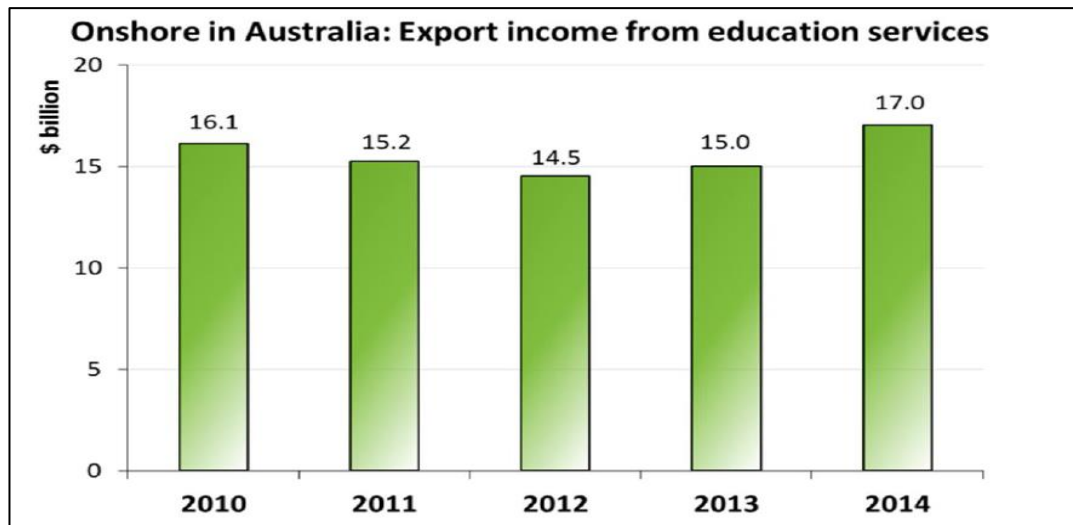


Figure 1.1. Australia's export income from education services 2010-2014 (Department of Education and Training, 2015a)

This education and training export not only benefits the wider Australian community but also the individual. Education and training in an international engagement setting could transform individuals, extending their knowledge and horizon, inspiring them with new ideas, introducing them to new experiences and expanding their friendships. Moreover, international students also provide substantial cultural perspectives that enrich the experiences for many Australian local students (Department of Education Employment and Workplace Relations, 2007).

However, those benefits depend on some important ingredients including the quality and integrity of the service provided to international students. It can be argued that the most important factor is the commitment from the educational provider to ensure a high quality service of education and training delivered to overseas students. The National Code of Practice for Registration Authorities and Providers of Education and Training to Overseas Students advocates a consistent

national approach, including provider registration: *“An industry servicing students who travel to Australia to study requires a consistent national approach to the registration of providers permitted to offer those services”* (Department of Education Employment and Workplace Relations, 2007).

A high quality service for Australia’s international education thus supports the long term benefits for the Australian educational industry and its international relations (Department of Education Employment and Workplace Relations, 2007).

Furthermore, the Code also highlights that *“All of this can be jeopardised by education and training providers who do not deliver a quality service, or overseas students who breach the conditions of their student visa. The ongoing realisation of the benefits of international education and training requires maintenance and enhancement of Australia’s reputation as a provider of high quality education and training to overseas students”* (Department of Education Employment and Workplace Relations, 2007).

As a nation, Australia also has a duty of care to ensure the well-being and the health and safety of overseas students who live, study and work in this country. Thus it is incumbent on universities as educational providers to ensure that the high quality of service that is delivered to them encompasses their academic life, social life and working life.

### **1.1.2 Who are international students?**

In Australia, overseas students are a diverse group. The characteristics of international students in Australia, as defined by Australia Human Rights Commission (2012), are diverse in ages and stages of lives, travel to Australia alone and/or with family members, marital status varied, and they stay in Australia for

diverse period lengths of time depend on the type of their study. The study programs attended by international students in Australia includes students exchange programs, English language courses, and higher education courses. The higher education programs include diplomas, undergraduate, master and doctorate programs. International students in Australia come from all parts of the world including Asia, Europe, Africa, Middle East, as well as from South and North America. The majority of students come from China, India, and Malaysia (UNESCO Institute for Statistics, 2014).

The Australian Education International defines international students as full-fee paying students studying in Australia on a student visa (Australian Bureau of Statistics, 2011) and they are classified into five sectors. The first, Higher Education, consists of undergraduate and postgraduate university students. The second is Vocational Education and Training (VET) within Technical and Further Education (TAFE) and related institutes. The third category is School, which includes kindergarten, primary, and secondary (junior and senior) students. English Language Intensive Courses for Overseas Students (ELICOS) is the fourth category. Finally, the 'Other' category comprises courses outside the above categories, such as foundation courses, non-award and enabling courses. Especially in the higher education sector, around one in five students in Australian universities is an international student (Norton, 2014).

At the end of 2008, approximately 519,000 international students were registered in Australia and this number was 20% higher compared to the previous year (Nyland et al., 2009). In 2011, there were reportedly 557,425 international students enrolled in Australia (Pejic, 2012). Furthermore, between 1997 and 2010,



Australia educated over 4 million international students (Australian Education International, 2011). Data from the University of Adelaide website in 2015 revealed that the number of international students' enrolled increased from 6,955 students in 2013 to 7,286 in 2014 (The University of Adelaide, 2015).

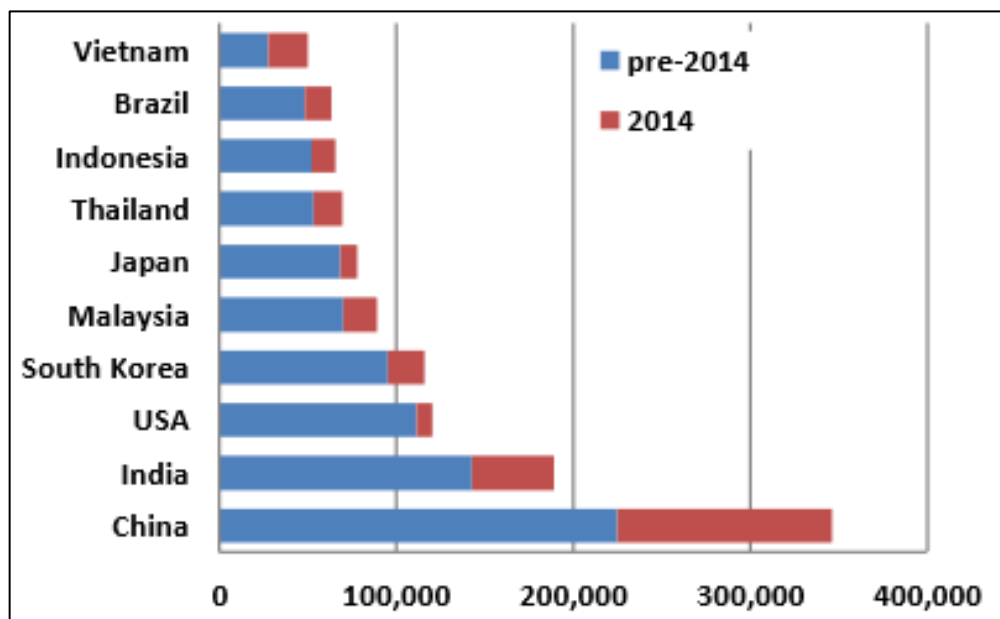


Figure 1.2. International student numbers by top 10 nationalities from 2002 to 2014 in Australia (Department of Education and Training, 2015b)

Figure 1.2 provides data on the international students in Australia based on their nationality from 2002 to 2014 (Department of Education and Training, 2015b). The figure shows that eight out of ten international students were from Asian countries: China, India, South Korea, Malaysia, Japan, Thailand, Indonesia, and Vietnam. The USA and Brazil were the two only non-Asian countries. China and India were the biggest contributor countries for the Australian international students' source (UNESCO Institute for Statistics, 2014; Department of Education and Training, 2015b).

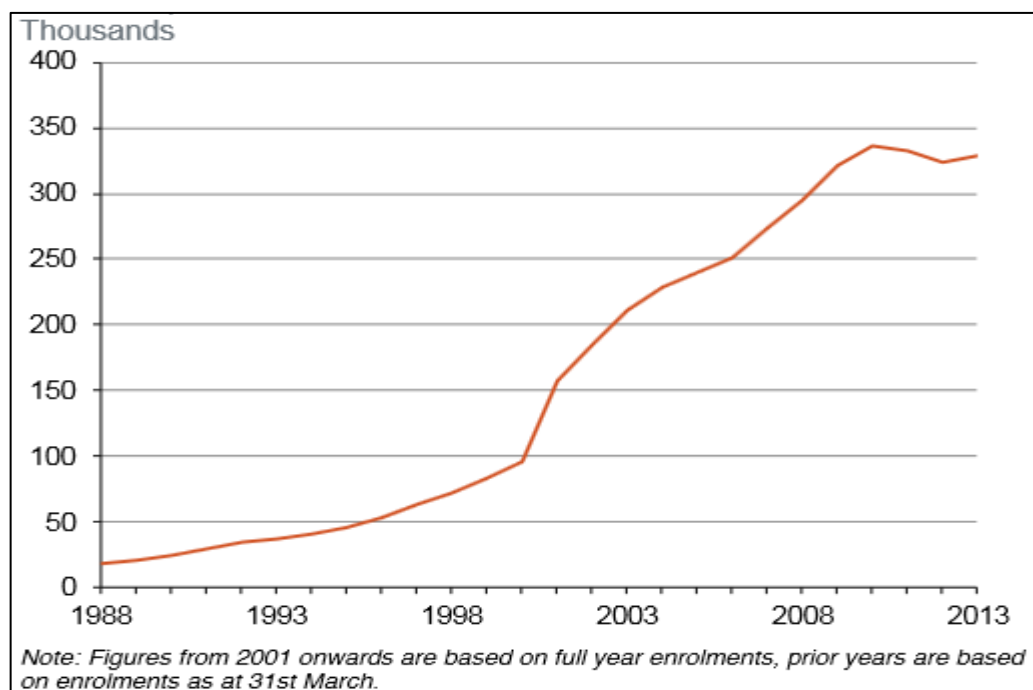


Figure 1.3. International student enrolments in Australian higher education from 1998 to 2013 (Norton, 2014)

The overall number of international students registered in Australian higher education increased from less than 50,000 students in 1988 to almost 350,000 in 2013 (see Figure 1.3). The number of international students at Australian universities started to increase when universities were allowed to take international students at fees they set; this was further supported by the migration policies favouring former international students (Norton, 2014).

Turning to South Australia, according to the Australian Bureau of Statistics (2009), this state has the highest percentage growth of incoming international university students compared to other states within Australia from 2002 to 2008 with about 150%. Victoria and New South Wales are the second and the third highest of this category with 117.1% and 95.7%, respectively. Figure 1.4 depicts the detail of the percentage growth of international students in Australian states during the period.

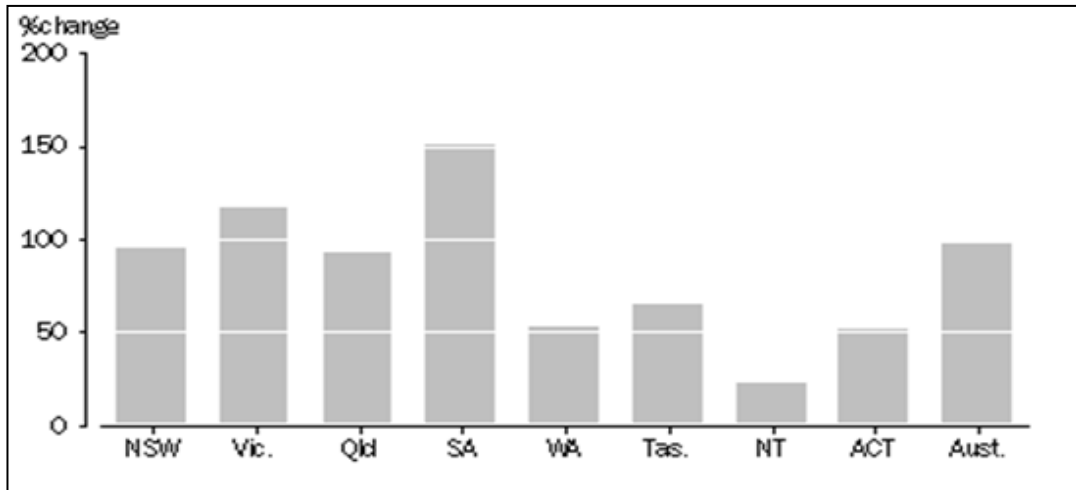


Figure 1.4. Change in international student enrolments 2002-2008(Australian Bureau of Statistics, 2009)

Interestingly, Study Adelaide (2014) reported that the percentage of incoming students to South Australia from first semester 2009 to second semester 2010 decreased significantly, as illustrated in Figure 1.5.

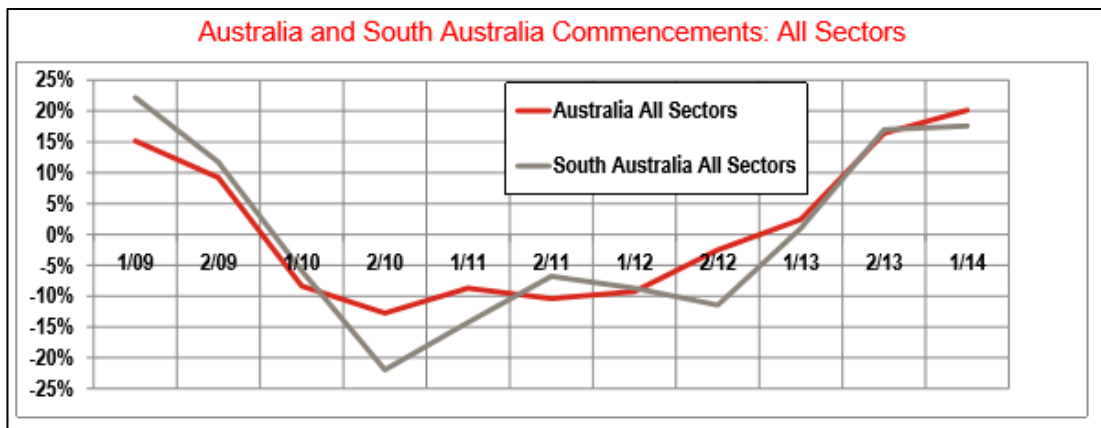


Figure 1.5. International students' commencement in Australia and South Australia from 2009 to 2014 (Study Adelaide, 2014)

The changes to Australia's migration and student visa policies, the issue of international students' safety in Australia, bad publicity from provider closures, competitors from other countries, the Global Financial Crisis, and the strength of the Australian dollar were the reasons for the decline number of international student commencement in South Australia (Study Adelaide, 2014). Afterwards, the

number of international students in Australia started to grow with only 1% in first semester 2012 to 18% in first semester 2014 (Study Adelaide, 2014).

Like most Australian students, most international students also work while study. According to Australian Education International (2007), about 56% of overseas students undertook paid jobs during academic periods compared with 86% of local students. During semester break about 70% of international students were involved in the Australian workplace compared with 92% of local students.

However, international students are different from local students. They are subject to control by DIAC and have other requirements. International students under Australian law are generally obliged to hold a student visa to come to Australia for study and many of them having paid employment while studying must comply with their visa conditions (Lawson, 2012).

### **1.1.3 The legislative frameworks and responsibilities of the education providers**

The Commonwealth and territory and state governments have shared responsibility to provide education and training to international students. Hence, the framework of regulations involves some government institutions and departments such as the Commonwealth Department of Education, Employment and Workplace Relations (DEEWR), the Department of Foreign Affairs and Trade (DFAT), territory and state education and training authorities and the Commonwealth Department of Immigration and Citizenship (DIAC), who are responsible for administering and regulating the visa program for international students (The Senate, 2009).

Australia runs international education programs under three main legislative frameworks: the Education Services for Overseas Students Act 2000 (ESOS Act);

Education Services for Overseas Students Regulations 2001 (ESOS Regulations); and the National Code of Practice for Registration Authorities and Providers of Education and Training to Overseas Students (National Code)(The Senate, 2009).

The Commonwealth has responsibility for administering the ESOS Act and the National Code. The ESOS Act and the regulations set out the Commonwealth legislative requirements for the registration of providers, obligations of registered providers, and the establishment of the National Code (The Senate, 2009). The focus of the ESOS Act is the regulation of providers to protect the interests of students as consumers and Australia's reputation as an exporter of education services. The ESOS framework recognises the role registered providers have in ensuring the integrity of Australia's student visa programme through their ongoing contact with students during their stay in Australia (The Senate, 2009).

International students must study with an education provider and in a course registered on the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS). It requires approved institutions for each state to be registered on the CRICOS, which is a database of Australian education institutions (Department of Immigration and Citizenship, 2010). To be registered on CRICOS, providers must meet the quality requirements for the delivery of education services which are generally set out in state and territory legislation. Registration requires a provider to meet the standards set out in the National Code which addresses areas such as marketing, recruitment and enrolment, student support, monitoring and reporting educational progress and migration requirements (The Senate, 2009).

The National Code of Practise for Registration Authorities and Providers of Education and Training to Overseas Students 2007 states that: "*Registered*

*providers (must) support students to adjust to study and life in Australia, to achieve their learning goals and to achieve satisfactory progress towards meeting the learning outcomes of the course”*(Department of Education Employment and Workplace Relations, 2007). This implies that the registered provider must provide assistance to students to adjust to life and study in Australia, including via the provision of appropriate orientation programmes that comprise information about student support services available to students in the transition to life and study in a new environment, legal services, emergency and health services, facilities and resources, complaints and appeals processes, and any student visa conditions relating to course progress and/or attendance as appropriate (Department of Education Employment and Workplace Relations, 2007).

Relatedly, the roles and responsibilities of education providers, state and territory federal governments, migration and education agents, and relevant departments and embassies, were resolved to ensure the quality and sufficiency in information, service, advice, and support for overseas students, including international students’ safety and their employment rights and protections from exploitation(The Senate, 2009). Indeed, according to the Australian Human Rights Commission (2012), the first principle in enhancing the human rights of international students is that *“stakeholders need to ensure that international students have accurate information about their employment rights, particularly in relation to remuneration, employment conditions and occupational health and safety”*.

#### ***1.1.3.1 International students' employment rights***

Under the *Migration Regulations 1994*, international students have the right to work while studying in Australia. In Australia, work is defined as an activity that attracts remuneration. All international students are subject to condition 8105 that allows them to work for up to 20 hours per week while they are in course session and they can work for unlimited hours during study breaks (Department of Immigration and Citizenship, 2009).

The limitation enforced by the student visa conditions related to work based on the fact that the main objective of an international student to come to Australia and using a student visa is for study and not to work (Department of Immigration and Citizenship, 2010).

International students are allowed to start to work only when their course has been commenced. The working hour limitation is not applied to work or training as part of course components or a voluntary work – thus only for a paid job. Additionally, for international students who hold subclass 573, 574 and 576 visa (higher degree research students), they and their family members have permission to work unlimited hours once their research program has started (Department of Immigration and Citizenship, 2009).

#### ***1.1.3.2 The responsibilities of the University as education provider***

The Senate Education, Employment and Workplace Relations (EEWR) References Committee on 17 June 2009 resolved that the roles and responsibilities of education providers, state and territory federal governments, migration and education agents, and relevant departments and embassies, in ensuring the quality

and sufficiency in information, service, advice, and support to overseas students include:

- a. Student safety
- b. Adequate and affordable accommodation
- c. Social inclusion
- d. Student visa requirements
- e. Adequate international student supports and advocacy
- f. Employment rights and protections from exploitation, and
- g. Appropriate pathways to permanency (DEEWR 2009).

Focusing on international students' safety and employment rights and protection from exploitation (*point a and f*), it is mandatory for the University as education provider and as the main sponsor of international students to come to Australia to provide sufficient information, advice and take a role to build awareness of students' safety as well as rights and responsibilities in the workplace, and to protect international students from exploitation.

It is crucial to highlight here that according to the Australian Human Rights Commission (2012), there are four principles to promote and protect the human rights of international students. The first principle is enhancing the human rights of international students. In order to implement this, *stakeholders need to ensure that international students have accurate information about their employment rights, particularly in relation to remuneration, employment conditions and occupational health and safety.*



## **1.2 Research aim and objectives**

The broad aim of this project is to explore work health and safety experiences among international students as young migrant workers in South Australia (SA) and to identify the role the university potentially play in providing effective occupational health and safety (OHS) awareness and education for international students.

The specific objectives are as follows:

1. To investigate time trends and to explore injury profiles of young migrant workers in SA.
2. To explore the working experiences and injury experiences of international students as young migrant workers in SA.
3. To identify the predictive factors for health and safety issues and work-study interference due to having paid employment.
4. To evaluate whether current practice in OHS awareness raising and education is effective to support international students to work safely in the workplace.
5. To make recommendations that can be implemented in order to reduce the accident and injury rate among young workers, particularly for international students in SA through OHS education in the university sector.

# Chapter 2

## LITERATURE REVIEW

## CHAPTER 2. LITERATURE REVIEW

*“The nature of evidence that we use to study research problems are statistical trends (numbers) and stories” (Creswell, 2013)*

### 2.1 Introduction

In April 2015, The Australian Government through the Department of Education and Training released an overview report from the International Students Survey (ISS) which revealed that more than 450,000 international students came to Australia to study in 2014. Interestingly, the findings from International Student Barometer 2014 indicated that having working experiences while studying is one of the Australian marketing strategies to attract international students to come to Australia (Australian Education International, 2015). However, when they enter the workplace, it is generally considered that international students may be more vulnerable compared to their domestic young peers (Nyland et al., 2009; Anderson et al., 2011a).

This chapter provides a literature review related to health and safety issues of migrant workers, young workers and international students as a working population. Firstly, this review develops a picture of migrant workers' health and safety problems. Secondly, it explores young workers' occupational health and safety issues. And lastly, this review chapter considers international students as a sub-group of young workers who are migrant workers. In addition, the responsibilities and duty of care of the University as education providers in the context of the Australian legislative frameworks for international students' welfare are reviewed as well.

## 2.2 Methods

A systematic search was conducted through PubMed, Scopus, Web of Science, Science Direct and Google Scholar using terms of interest in a logic grid with key words "international students", "young workers", "migrant workers" and "health and safety". The articles in this search were limited to those published between 1994 and 2014. A twenty year period was considered to be a sufficiently long period for review, given the time trends in international student enrolments in Figure 1.3.

The following process was carried out to select articles: reading titles and abstracts; conducting a manual search of citations relevant to the research topic; and looking at relevant articles through reading the reference lists of selected articles, i.e. forwards and backwards searching. Publications which were not focused on the main themes were eliminated. Table 2.1 provides the keywords used to identify relevant articles and Figure 2.1 shows the process of article selection (flow chart).

Table 2.1. Keyword used to identify relevant articles

| <b>International students</b>   | <b>Employment</b>  | <b>Occupational health and safety education</b>  | <b>Migrant workers</b>   | <b>Young workers</b>  |
|---|--|--|--|---|
| International student*<br>OR Overseas student*<br>OR Foreign student* | Employment<br>OR jobs<br>OR employed<br>OR worker*<br>OR employee* | OHS<br>OR<br>"occupational health"<br>OR<br>"occupational safety"<br>OR "workplace safety" | Migrant worker*<br>OR Immigrant worker*<br>OR Migrant employee*<br>OR Migrant employment | Young worker*<br>OR Young employee*<br>OR Teen*<br>OR Adolescent* |

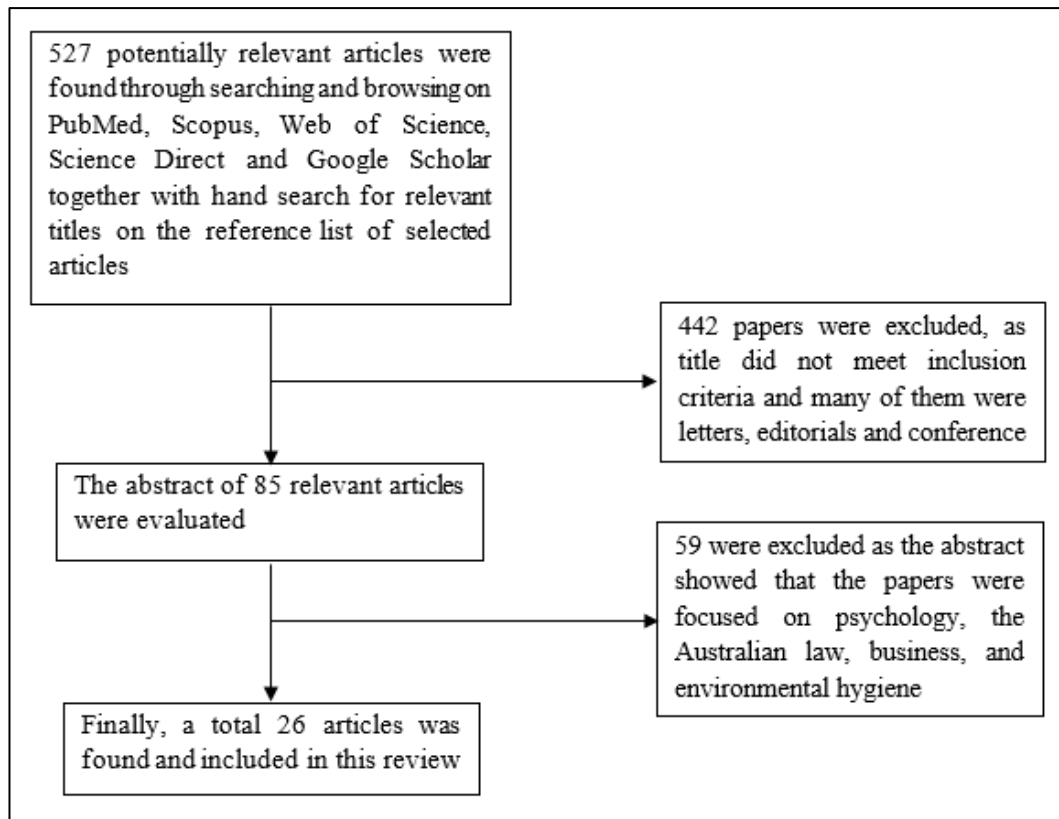


Figure 2.1. Process of selection of articles of the review

The literature review is summarised into three tables which consist of: category of review; authors and country of research; title and main findings; and the comments are provided to state the conclusions drawn from each table. The following sections present tables summarizing the literature review in the research.

### 2.3 Migrant Workers' Health and Safety

Research exploring problems related to migrant workers have been published from various countries and they employed a range of methodologies. Table 2.2 provides a summary of the literature about migrant workers' health and safety.

Table 2.2. Migrant Workers' Health and Safety

| Category of literature | Authors & Country                          | Title   | Main Findings  |
|------------------------|--|---|--|
| Systematic review      | Ahonen et al. (2007)<br>International      | Immigrant populations, work and health - a systematic literature review | This paper reviewed the literature on immigrant occupational health available from recent studies. A systematic investigation was performed in the PubMed journal database with a focus on terms such as immigration, migrant, occupational health, occupational injury, and workers. Only articles in English and Spanish were reviewed in this study. This study demonstrated that migration has escalated in developed countries and has had political, social, and economic consequences for migrating groups, and also for their sending and host societies. Improving the health of immigrant workers requires more reliable data, targeted appropriate interventions, and enforcement of existing regulations.  |
| General review         | Hansen and Donohoe (2003)<br>United States | Health issues of migrant and seasonal farm workers                      | This study observed the socio-economic conditions of migrant and seasonal farmworkers (MSFWs) in the United States. The observation revealed that MSFWs form an under-served population with many socio-economic and health problems. MSFWs' health problems are the result of occupational hazards, poverty, substandard living conditions, migrancy, and language and cultural barriers. These barriers also affect MSFWs' access to health care. Specific health challenges faced by MSFWs include infectious diseases, chemical and pesticide-related illnesses, dermatitis, heat-related illnesses, respiratory conditions, musculoskeletal disorders, traumatic injuries, reproductive and child health problems, social and mental health problems, cancer, dental diseases and inadequate preventive care. This study suggested increasing attention, resources, education, and preventive services for MSFWs and families, as well as those who serve them. |

|                 |   |   |  |
|-----------------|---|---|--|
| General review  | Loh and Richardson (2004) United States | Foreign-born workers: Trends in fatal occupational injuries, 1996-2001  | This research identified trends in fatal work injury among foreign-born workers in the United States from 1996-2001 using Bureau of Labour Statistics surveillance data. The upward trend in workplace fatalities among foreign-born workers over the 1996-2001 period reflects the large influx of foreign-born workers, many of whom obtained employment in occupations and industries with inherently higher risk of fatal injury. Several factors are relevant to this observation, including lower level of education, low level of English proficiency, and the concentration of the foreign-born population in the metropolitan areas.  |
| General review  | Smith and Mustard (2009) Canada         | Comparing the risk of work-related injuries between immigrants to Canada and Canadian-born labour market participants | The research examined the burden of work-related injuries among immigrants to Canada compared to Canadian-born labour force participants. The results of the study revealed that male immigrants in their first 5 years in Canada are at increased risk of work-related severe injuries. This research also proposed the need to study the barriers faced by immigrants in obtaining safe employment, the types of injuries that immigrants experienced while working and the effect of injuries.  |
| Empirical study | Corvalan et al. (1994) Australia        | Role of migrant factors in work-related fatalities in Australia   | This research investigated the role of workers' language and migration characteristics regarding the incidents of work-related fatalities in Australia. All work-related fatalities occurring in Australia during the period 1982-1984 were studied in this research. This research found that migrant workers had a similar fatality rate to that of Australian-born workers in the employed civilian labor force. However, these groups had different injury incidents in rural and mining occupations. Overseas-born workers had a higher incident of injuries compared to Australian-born workers. This study also revealed that the mortality rate of persons with non-English speaking background with a duration of residence of less than five years increased significantly during this period. These |

|                 |  |  |  |
|-----------------|--|--|--|
|                 |  |  | values contributed to the Australian rate with increasing duration of residence. This study concluded that factors related to origin country (such as language) and migrant workers' duration of residence are significant determinants of safety at work in Australia.  |
| Empirical study | Bell et al. (2004) Ireland                                       | Migrant workers in Northern Ireland  | The research argues that there is a continuing debate about the difference between immigrant and migrant workers. Long term integration or settlement is associated with the term of immigrant. On the other hand, the term "migrant workers" implies the possibility of returning to the home country after migration or that the move is temporary. Furthermore, it is reported that in Northern Ireland migrant workers face a range of problems related to low salary, exploitation, harassment, racism, poor housing, and safety problems.                          |
| Empirical study | Schubert and Dijkstra (2009) Netherland                          | Working safely with foreign contractors and personnel                          | This research investigated the common problems and best practices experienced by multinational companies in the agricultural, gas, and chemical industries in the Netherlands when working with foreign contractors and personnel. The study identified five problematic areas: communication/ language, uncertainty about qualifications, safety culture, specific employment situations, and cooperation between principal and contractor. The solutions and critical success factors named by individual companies are examined and best practice examples are given. |
| Empirical study | Guldenmund et al. (2013) Denmark, Netherlands and United Kingdom | An explanatory study of migrant workers and safety in three European countries | This study reported some reasons why migrant workers are claimed as a vulnerable group in the workforce; they generally have insufficient language competency to understand safety instructions in the country in where they are engaged to work. Furthermore, migrant workers are often reliant on the experience from their origin country. Moreover, the research reveals that migrant workers are also likely to be predominantly concerned about making as much money as possible in their seasonal   |



|                  |                               |  |   |
|------------------|-------------------------------|--|---|
|                  |                               |  | jobs, such as in the agriculture and construction industries. Hence, even though they face a less than optimal working environment, they will not complain. And finally, the study revealed that there is a substantial amount of migrant workers who stay unregistered, which impacts on the difficulties of determining the magnitude of migrant workers' safety problems.  |
| Commentary paper | Underhill (2010)<br>Australia | Should host employers have greater responsibility for temporary agency workers' employment rights? | In order to protect temporary agency workers' rights, the paper proposed sharing responsibilities between both agency employers and host employers. The author believed that this shared responsibilities may fill the gap between direct hire employment conditions and their agency. The study identified that on the one side the employer agencies likely to provide less support towards employment issues on the work site that supposed to be shared with host employers. On the other side, host employers tend to decrease their responsibility upon workers whom do not directly work for them. |

Table 2.2 presents studies focusing on the health and safety of migrant workers. A systematic review about the immigrant population by Ahonen et al. (2007) revealed that developed countries had experienced an increased number of migrant workers, which had brought many social and economic problems for the host countries. Hawthorne (2005) claimed that in order to prevent the escalation of the number of migrant workers, the Australian Government has started a substantial review of policy related to migration in 1997 by gradually reducing the pathways for unskilled workers.

The studies in the United States, Canada, Netherlands, Denmark and United Kingdom claimed that language, educational background, and cultural barriers are the most determinant factors for health and safety problems of migrant

workers(Hansen and Donohoe, 2003; Loh and Richardson, 2004; Smith and Mustard, 2009; Guldenmund et al., 2013). Migrant workers experienced higher risk of fatal injuries because they do not always understand safety instructions well due to their low level of education and low level of the host country's language. Migrant workers prefer to utilize the safety knowledge and culture of their origin countries, but this is not always applicable in the host countries.

Lack of language skills also presents difficulties for migrant workers when attempting to communicate their needs or problems in the workplace to their employee. However, language and cultural problems can be solved by a proper approach to workers. Schubert and Dijkstra (2009) reported that three multinational companies in the agricultural, gas, and chemical industries in the Netherlands had successfully applied appropriate interventions to overcome the problems of culture and language when working with foreign contractors and personnel.

Besides language, educational background and culture, another factor that determined the safety in the workplace for migrant workers is duration of residence. Corvalan et al. (1994) stated that the mortality rate of migrant workers with a duration of residence of less than five years increased significantly during 1982-1984. This finding is supported by Smith and Mustard (2009) who stated that immigrants in their first five years in Canada were at increased risk of work-related severe injuries.

In addition, migrant workers in European countries face a range of problems in the workplace such as low salary, exploitation, harassment, and racism, which in turn had a significant influence on the health and safety of migrant workers (Bell et al., 2004; Guldenmund et al., 2013). However, there was usually no complaint

about their less than optimal working environment because they were focused on making money.

As a subpopulation of the workforce, the number of migrant workers is growing in some developed countries. The growth has produced a new mix of ethnicities in worker communities around the world. The potential impact of the growth to the work-related injuries and illness has been presented through some research. In the United States, McCauley (2005) reported that immigrant workers experience more accidents and injuries and worse severe outcomes than other groups of the whole working population.

There was a significant increase of the number of foreign-born workers' fatality rate in the US between 1998 and 2001 (Loh and Richardson, 2004), as illustrated in Figure 2.2. In 1998, the fatality rate among migrant workers was below 4.5 fatalities per 100.000 and it increased to more than 5.5 fatal accidents per 100.000 employed in 2001. Otherwise, for native born workers and the overall population of workers, there was a decrease during the period of observation.

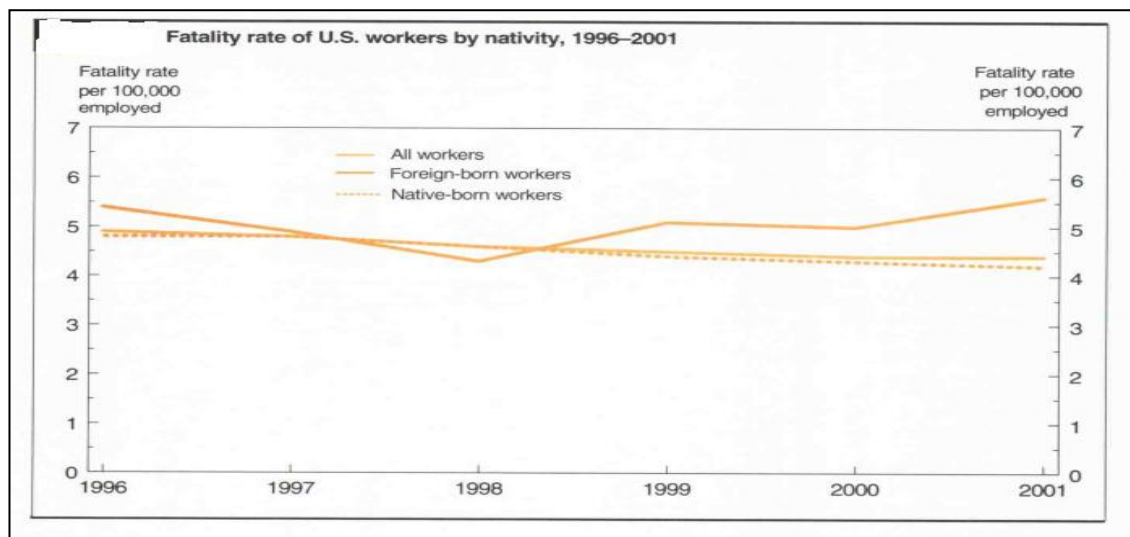


Figure 2.2. Fatality rate of US workers by nativity, 1996-2001 (Loh and Richardson, 2004)

As a developed country with growing economy Australia is one of the main destinations of migrant workers from all over the world, particularly those from Asian countries. In November 2010, more than 1.4 million people came to Australia as immigrants. Around 1.2 million of them stayed as temporary residents and recent migrants. About 410,900 of them were categorised as permanent visa migrants, and approximately 308,700 of these immigrants obtained Australian citizenship. The largest component of this group was temporary migrants, including international students (approximately 477,800 people).

A similar pattern found in the US about work related fatalities has been reported in Australia. According to Corvalan et al. (1994), the standardised mortality ratio was significantly different between workers from a Non-English Speaking Background (NESB) and employees from an English Speaking Background (ESB).

Table. 2.3. Standardised mortality ratio\* (SMR) for overseas-born persons and language group, by duration of residence

| Duration of residence (years) | Overseas-born persons |         | English-speaking |        | Non-English-speaking |         |
|-------------------------------|-----------------------|---------|------------------|--------|----------------------|---------|
|                               | SMR                   | 95% CI  | SMR              | 95% CI | SMR                  | 95% CI  |
| 0-1                           | 220                   | 147-328 | 124              | 64-239 | 391                  | 237-643 |
| 2-4                           | 167                   | 114-243 | 167              | 99-285 | 165                  | 97-281  |
| 5-9                           | 63                    | 41-099  | 105              | 64-172 | 25                   | 9-065   |
| 10-14                         | 84                    | 63-113  | 74               | 48-114 | 94                   | 65-138  |
| 15-19                         | 97                    | 71-131  | 117              | 79-171 | 76                   | 47-124  |
| ≥ 20                          | 100                   | 82-122  | 97               | 69-135 | 102                  | 81-128  |

\*Standardised by occupation to Australian-born population fatality rates (95% CI = 95% Confidence Interval).

Source: Corvalan, 1994

The data provided in Table 2.3 shows that the mortality ratio was particularly elevated for people of NESB who had resided in Australia for less than five years. In other words, the highest incidence of work related fatalities was found

among migrant workers who are relatively recent arrivals in Australia (Corvalan et al., 1994). It can be assumed that international students are included in this category.

## 2.4 Young Workers' Health and Safety

According to WorkSafe Victoria (2007), young workers are defined as people who are working permanently full or part time, casually full or part time, on labour hires, as apprentices or trainees and as part of a work experience or structural workplace learning program; and they are generally between 15 and 24 years old.

Much research has been published regarding the vulnerability of young workers. Table 2.4 presents the summary of publications on young workers' health and safety.

Table 2.4. Young Workers Health and Safety

| Category of literature | Author & Country             | Title   | Main Findings  |
|------------------------|------------------------------|---|--|
| General review         | Chin et al. (2010)<br>Canada | Enabling youth to advocate for workplace safety | This research examined safety education programs for young workers in Canada with an emphasis on how well these programs promote self-advocacy skills in young workers. Documents of youth workplace safety education initiatives sponsored by government and non-governmental agencies were analysed systematically in this study.<br>Results from this research revealed that safety programs for young workers in Canada merely focus on providing them with knowledge of their rights and identifying reasons for youth injury on the jobs. The programs do little in the way of supporting worker self-advocacy, especially in the areas of knowledge of self, communication and leadership. The study recommends that principles of self-advocacy should be embedded into workplace safety education programs. |

|                |                                     |   |   |
|----------------|-------------------------------------|---|---|
| General review | Walters et al. (2010) United States | Occupational injuries to Oregon workers 24 years and younger:<br>An analysis of workers' compensation claims, 2000–2007 | <p>This study was conducted to describe and estimate rates of occupational injuries to workers younger than 25 years of age in Oregon during an 8-year period. Oregon workers' compensation disabling claims data and one commercial insurance carrier's non-disabling claims data were analysed.</p> <p>The study found that injuries were more frequent among 22–24 year olds and among males. However, females have a higher proportion of claims in the youngest age group. Sprain or strain was reported as the most common injury, though lacerations and burns were more frequently reported in the 14–18 year olds. The rate of injury for 14–18 year olds doubled when non-disabling claims were included. The overall rate of injury was 122.7/10,000 workers, but was higher in the construction, manufacturing, and transportation sectors, and in the forestry, agriculture, fishing and hunting sector for older teens and young adults.</p> <p>This information supports the evidence that teenagers and young adults are at higher risk for work-related injuries, illnesses, and fatalities than older workers. This study also suggested that special attention should be given to older teen workers, who are not covered under child labour laws but may still lack the emotional or cognitive maturity to perform higher-risk tasks.</p> |
| General review | Anderson et al. (2011a) New Zealand | The good, the bad and the ugly:<br>The health and safety of young workers   | <p>This study examined recent initiatives designed to address the health and safety of young workers in New Zealand. The research found evidence that young workers are vulnerable because they are frequently exposed to hazardous conditions for low pay and are concentrated in industries where precarious employment is prevalent, such as agriculture, manufacturing, and service.</p> <p>This research also found that many young workers are to some extent invisible and not recorded in the official injury and compensation records probably because they fall outside the conventional state apparatus designed to protect workers and assist injured or ill adults.</p>  |

|                 |  |   |   |
|-----------------|--|---|---|
| Empirical study | Blair et al. (2004)<br>United States         | Safety beliefs and safe behaviour among mid-western college students  | This research explored the impact of age, gender, class, and geographic region on safety beliefs and safe behaviour. The study found that significant effect for gender and age on safety beliefs and safe behaviour and a significant interaction between gender and age for both outcome variables. The level of safety beliefs and safe behaviour of Midwestern college students in 1993 and 2002 was also compared in this research. The students in 2002 were found to be less safety-conscious in terms of self-reported safety beliefs and safe behaviour than those in 1993. These findings show that for the period 1993-2002 safety education of adolescents and young adults in the United States has not been effective. In other words, the social and school environment in 2002 was less conducive to the students having safe behaviour and beliefs than it had been in 1993.   |
| Empirical study | Westaby and Lowe (2005)<br>United States     | Risk-Taking orientation and injury among youth workers:<br>Examining the social influence of supervisors, co-workers, and parents | The study examined how social influence and a risk-taking orientation impacts on youth injury at work. The hypothesis in this study was that perceived supervisory influence, co-workers' risk taking, and parental risk taking serve as key exogenous variables of a risk-taking orientation at work.<br>The effect of parental risk taking firstly was assumed to be mediated via global risk taking, but then was hypothesized to predict risk-taking orientation at work. The risk-taking orientation was further hypothesized to serve as a direct predictor and full mediator of work injury.<br>Longitudinal results from 2,542 adolescents working across a wide spectrum of jobs supported the notion that social perceptions about supervisors, co-workers, and parents serve as important factors underlying youths' risk-taking orientation at work, with co-workers' risk taking demonstrating a relatively strong effect. |
| Empirical study | Zierold and Anderson (2006)<br>United States | Severe injury and the need for improved safety training   | This research evaluated work characteristics and safety training among teenagers with severe work-related injuries. The study found 15% of teenaged workers reported being injured on the jobs. Variables associated with severe injury included having a near-miss incident at work,   |

|                 |                                 |   |   |
|-----------------|---------------------------------|---|---|
|                 |                                 | among working teens   | <p>working after 11:00 PM and being asked to do something dangerous.</p> <p>The results of this study suggested methods that may reduce severe injuries in working teens are prohibiting them from working long and late hours during the school week, proposing better communication when a youth experiences a near-miss incident at work, or when a co-worker is injured, and improving safety training. Safety training should be viewed as a priority in health education programs provided by schools.</p>  |
| Empirical study | Tucker and Turner (2011) Canada | Young worker safety behaviours: Development and validation of measures                                    | <p>This research carried out four studies to develop and validate measures of workplace safety-related behaviours relevant to young workers in response to deteriorating conditions.</p> <p>The results of the studies maintain the validity and the reliability of a set of safety-related behaviours; intentions to quit an unsafe job (exit), speaking out about safety concerns (voice), adapting to a dangerous job hoping that safety conditions improve (patience), deliberately letting safety conditions worsen (neglect), and following safety policies (compliance). This set of behaviours is practical for safety intervention assessment of young workers and for research on the topic of safety-related behaviour.</p>                                  |
| Empirical study | Rasmussen et al. (2011) Denmark | Incidence of work injuries amongst Danish adolescents and their association with work environment factors | <p>The objectives of this study were to evaluate the incidence of severe work injuries among Danish adolescents and to find potential work environment factors associated with the accidents.</p> <p>The results specified that around 5% of the adolescents who held a job experienced a work injury by the age of 17. This equals an incidence of 65 accidents per million working hours. Despite having decent working conditions, nearly 50% of adolescents reported that their work was heavy, monotonous or psychologically demanding. These conditions support an increased risk of experiencing work injuries.</p> <p>The research concluded that the incidence of work injuries among adolescents was higher than the incidence among adults. Adolescents'</p> |



|                 |  |  |   |
|-----------------|--|--|---|
|                 |  |  | risk of experiencing a work injury was elevated significantly by lack of social support from management. Hence, more direct supervision is proposed to prevent adolescents' work injuries.  |
| Empirical study | Zierold et al. (2012)<br>United States | Attitudes of teenagers towards workplace safety training | This research investigated the attitudes of teen workers towards safety training and how they stay safe on the job. The study found that the majority of teens agreed that safety training was important, but they personally felt they did not need it. They prefer to use their "common sense" to stay safe in the workplace. However, more than 50 % of teens reported workplace injuries. Most teens reported receiving safety training but some of them were unable to differentiate between safety training and job training. The method of safety training for teen workers and adult workers is exactly the same, which means it was not suited to teens' developmental levels or interest. Therefore, the training was ineffective for teens. This study suggested that safety training may be a powerful way to reduce injury rates among working teenagers, but the training methods should be geared towards teens' developmental levels or interest. |

The research listed in Table 2.4 discusses young workers' health and safety. Research in the United States (Walters et al., 2010) and Denmark (Rasmussen et al., 2011) presents evidence that the incidence of work injuries among young workers is higher than among adults. Typically, young workers are concentrated in industries where precarious employment is prevalent, such as agriculture, manufacturing and service, as described in studies in New Zealand (Anderson et al., 2011a) and United States (Walters et al., 2010).

Some studies presented factors that escalate the incidence of injuries among young workers. Studies by Zierold et al. (2012) and Blair et al. (2004) claimed that the attitude of young workers towards safety in the workplace is a determinant

factor for injury. Westaby and Lowe (2005) indicated that co-workers, supervisors and parents also contribute to the risk-taking orientation of youths. Moreover, Rasmussen et al. (2011) reported that young workers in Denmark found their work was heavy, monotonous, and psychologically demanding and reported it as a factor that increased the rate of injuries.

Young workers also face problems associated with policy that affects their health and safety in a workplace. In New Zealand, many young workers are unlisted in the official injury and compensation records because they are not included in the conventional state apparatus designed to protect workers and assist injured or ill adults (Anderson et al., 2011a). Similarly, Walters et al. (2010) showed that young-adult workers in the United States are not covered under child labour laws but may still lack the emotional or cognitive maturity to perform higher-risk tasks.

Most studies in this review suggest that safety education is important to reduce injury for young workers. However, the current safety education and training for young workers is not effective. A study in the United States proposed the reason for ineffective safety training for young workers is because the training uses a similar method that is applied to adult workers, but this is not suited to youths' developmental levels or interest (Zierold et al., 2012).

The safety training also should focus not only on providing information for identifying reasons for workplace injuries and young workers' rights. Self-advocacy should also be embedded into workplace safety education programs (Chin et al., 2010). Moreover, as Zierold and Anderson (2006) suggested, safety training should be viewed as a priority in health education programs provided by schools.

Injury and death among young workers is at an alarmingly high rate (Chin et al., 2010). For example, it is extrapolated that one in 23 young employees experience injury in the workplace in British Columbia and each week five of them are disabled permanently by workplace incidents (Chin et al., 2010).

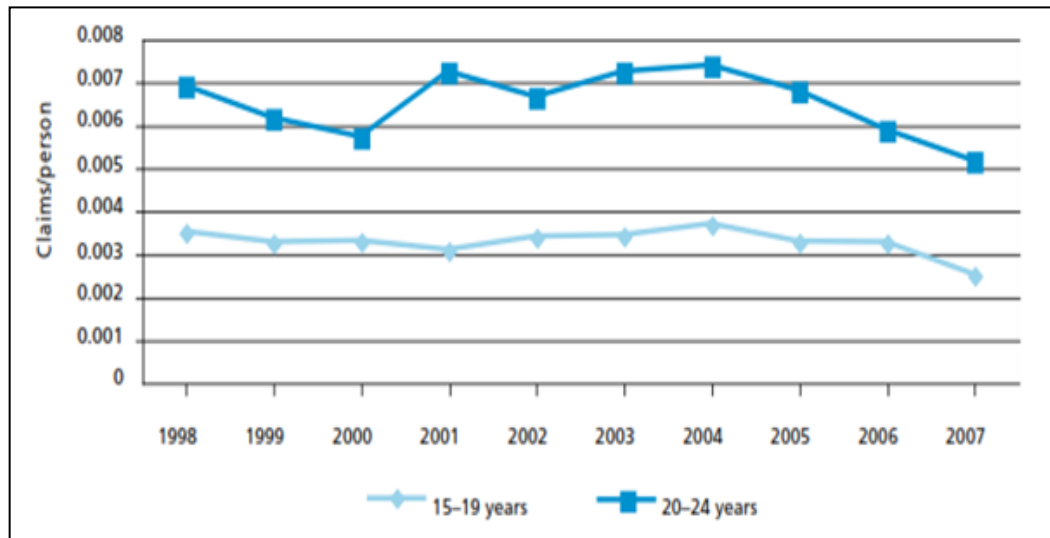


Figure 2.3. Young workers serious claims by age group and year (Jahan et al., 2010)

Figure 2.3 describes the trend of young workers' injuries in South Australia between 1998 and 2007 (Jahan et al., 2010). It can be seen from the graph that young workers aged 20-24 years experienced higher injury rates than young employees in the 15 to 19 age group in every single year of observation. From this trend, it can be inferred that college and university students are at the highest risk of injury in the workplace. Again, this group includes international university students.

## 2.5 International Students as a Working Population

Over the last decade, Australia has become one of the main destinations for international students to pursue their higher degree of education. Interestingly, some research has indicated that most international students are involved in the

workplace due to numerous reasons and factors. However, it is generally assumed that this subgroup of the young worker population will be very vulnerable when they take paid employment. Table 2.5 summarises the literature on international students as working population.

Table 2.5. International Students as a Working Population

| <b>Category of literature</b> | <b>Authors &amp; Countries</b>                   | <b>Title</b>   | <b>Main Findings</b>   |
|-------------------------------|--|--|--|
| General review                | Ziguras and Law (2006)<br>Australia and Malaysia | Recruiting international students as skilled migrants: The global 'skill race' as viewed from Australia and Malaysia | Australia has recruited international students as skilled migrant workers based on some reasons main reasons. First, for economic development, Australia needs to recruit highly trained workers. Second, Australia has an ageing population and low birth rates, hence it needs young people who are just beginning their working lives to sustain the Australian economic achievement.   |
| General review                | Nyland et al. (2010)<br>Australia                | The international student safety debate: Moving beyond denial  | As a result of a series of demonstrations by Indian students in 2009 and interventions by concerned foreign governments, international student safety became an important issue to Australian international education exporters. These conditions lead them to focus on how best to secure Australia's share of the international education market without denying that international student safety is a systemic problem.<br>This study attempted to contextualize this development by reviewing the debate on international students and safety in Australia, New Zealand, the USA, and the UK using a stigma management framework. This review found that education exporters need to be convinced that student safety is an important issue.<br>This study claims that Australian officials were slow to make this acknowledgement because they believed the industry was protected by its link to the immigration program. |

|                 |  |   |  |
|-----------------|--|---|--|
| General review  | Özturgut and Murphy (2009) United States | Literature Vs. Practice: Challenges for international students in the US  | Reasons for international students to leave US are to obtain academic achievement, to pursue training and education which are not provided in their own country, to gain prestige by getting a diploma or degree through learning in higher education in the US, and to escape from unstable political and economic condition in their home country. However, in the US, international students face adaptation problems related to English language, placement services and financial aid.  |
| General review  | Robertson (2011) Australia               | Cash cows, backdoor migrants, or activist citizenship? International students, citizenship, and rights in Australia | From 2005 to 2008, more than 60,000 international students stayed in Australia as migrant workers after finishing their academic life, reflecting about 20% of overall economic migrants. Ideally, international students as neoliberal subjects are still attractive as the target market for higher educational providers, but no longer as migrant workers. On the one hand, international students use education as a pathway to permanent residence in Australia as “backdoor migrants” on the other hand, they suffer from being treated as ‘cash cows’ by education institution and irresponsible migration agents. |
| Empirical study | Nyland et al. (2009) Australia           | International student-workers in Australia: A new vulnerable workforce  | Recently, international students have been involved in the labour market in larger proportions compared to previously. They face difficulties in the workplace due to cultural adjustment and language constraints. Also, international students tend to undertake jobs in low-level positions. The study participants believe that their difficulties in the workplace are a result of racism and exploitation.   |
| Empirical study | Smith (2010) Australia                   | Pedagogy not political point scoring: How training providers teach international students                           | A survey conducted in 2007 revealed that 67% of international students of VET are involved in the workplace, include full-time and part-time jobs. About 26% of them continue their study in Australia and around 84% of them work in Australia while studying.  |

|                 |  |   |  |
|-----------------|--|---|--|
|                 |  |   | Additionally, most of them (88%) expressed their satisfaction with their study program and will recommend their friends and family to study in Australia.  |
| Empirical study | Anderson et al. (2011b)<br>New Zealand and Australia | The working experience of student migrants in Australia and New Zealand   | This study aimed to redefine the definition of “vulnerable worker” to argue that migrant students should be included in this group. This study’s findings revealed that international students’ working experiences are characteristic of migrant workers because they are often allocated to contingent and precarious employment, working long hours for low wages in unsafe conditions. They also may experience workplace marginalisation on multiple levels, where their working conditions have not supported their prospects of securing permanent residency or work relating to their studies. Even though these working conditions may be illegal, government and unions in Australia and New Zealand have not taken an important role in protecting these workers. These findings have a wide-ranging impact on harnessing the benefits of migration, including student migrant workers, to build high-performance workforces. |
| Empirical study | Anderson et al. (2012)<br>New Zealand                | Managed migration? The health and safety and human rights implications for student migrant labourers in the horticulture sector | A significant proportion of student migrant workers are involved in the workplace sectors which have reasonably high rates of accidents such as the horticulture sector. They have language constraints and are often employed in excess of the working hours nominated in their visa entitlement, which makes them a more vulnerable workforce. International students who work in the horticulture sector also face illegal working conditions and relatively often experience exploitation.   |

The studies about international students as a working population listed in Table 2.5 are mostly conducted in Australia. Australia has some interest in recruiting international students to be skilled migrant workers. Australia needs to

recruit highly trained workers for its economic development. An ageing population and low birth rates in Australia mean that young people who are just starting their careers are needed to maintain the economic achievement of Australia. Also, graduates are more readily recruited from one's own education institutions than from overseas (Ziguras and Law, 2006).

The United Kingdom Council for International Student Affairs (UKCISA) revealed that more than 50% of international students had undertaken paid work during their study, and postgraduate students tended to participate in the workplace more than undergraduate students. This result has been reported based on a survey conducted in 20 universities in UK (Nyland et al., 2009).

A similar figure has been reported in Australia by Australian Education International (2007). Approximately 56% of overseas students in Australia had undertaken employment during their study period. The number of students participating in the workplace increases during holiday periods, when around 70% of foreign students conduct a paid job compared to 92% of domestic students.

Some of studies found that the reason most overseas students study in Australia is merely to obtain permanent residency through education (Jensen, 2007; Robertson, 2011). This is quite different from the case in the United States, where students report their primary reasons are obtaining academic achievement, gaining prestige as a US graduate, pursuing training and education not provided in their countries, and escaping from unstable political and economic conditions in their home countries (Özturgut and Murphy, 2009).

A significant proportion of student migrant workers in Australia are employed in sectors which have reasonably high rates of accidents (Anderson et al.,

2012). They face difficulties in the workplace due to cultural adjustment and language constraints; they also report that some of their difficulties in the workplace are a result of racism and exploitation (Nyland et al., 2009).

The difficulties of international students in the workplace, especially the exploitation, mean that they are a vulnerable work force. The literature suggests that governments and the unions have not taken an active role in protecting these workers (Nyland et al., 2010; Anderson et al., 2011b). International student union participation is relatively low, and it is highly likely that most of them are not aware of the role of union (United Voice, 2016).

Moreover, international students tend to undertake low-level jobs (Nyland et al., 2009). Despite their goal of permanent residency, some of them took jobs which do not support their prospects of securing permanent residency because those jobs have no relation to their field of study.

Regardless of all the difficulties in the workplaces, most international students felt satisfied with their experience when working while studying. Hence, they prefer to stay in Australia living as migrant workers after their graduation and, interestingly, they recommend their friends and family to study in Australia (Smith, 2010).

## **2.6 Overlapping vulnerabilities as migrant workers as well as young workers**

Australia has attracted international students who often also become migrant workers (Ziguras and Law, 2006). Migrant workers are a growing component of the workforce in Australia. The potential impact of this growth on the work-related injuries and illness has been researched. In the United States, for example,



McCauley (2005) reported that immigrant workers experience more accidents and injuries and worse severe outcomes than other groups of the whole working population due to numerous factors. Important factors that put migrant workers at greater risk are language issues and cultural barriers (McCauley, 2005; Corvalan et al., 1994; Lindhout and Ale, 2009).

Besides being migrant workers, international students are also young workers and represent a substantial fraction of the young worker population. Recent evidence suggests that young workers suffer from a higher risk of injury in the workplace in comparison with the adult workforce (Miller and Kaufman, 1998; Schober et al., 1988; Delp et al., 2002).

In Australia young workers were twice as likely to experience work-related injury as other workers (Scott et al., 2004). Young workers in the age group 20-24 experience more injury compared to the age group 15-19 (Jahan et al., 2010). Most of the international students come to Australia to start their higher education between the age of 18 and 24. According to Nyland et al. (2009) and Anderson et al. (2011b), when international students involved in the workplace, the potential hazards and risks exposure due to illegal and unsafe work are even multiplied.

Migrant workers and young workers are susceptible to accident and injury, and it is reasonable to assume that international students are even more vulnerable than older migrant workers and local young workers. In other words, overseas students are facing the double burden of being young workers as well as migrant workers. The overlapping vulnerabilities of international students as young migrant workers is illustrated in Figure 2.4.

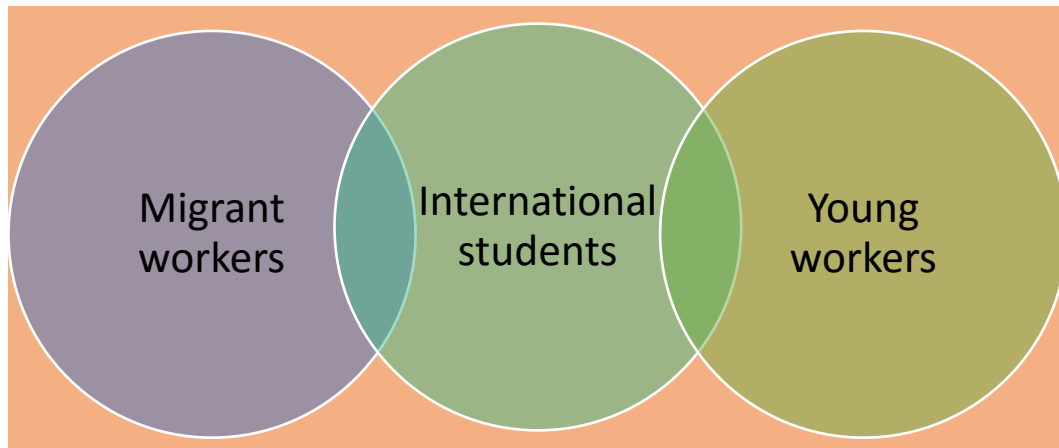


Figure 2.4. International students as young migrant workers' overlapping vulnerabilities

If international students are very vulnerable subpopulation of the Australian workforce, it is important to develop interventions to decrease accidents or injuries for this target group not only inside but also outside the workplace. The University as educational provider and the main sponsor of international students to come to Australia may have an important role in addressing the problems, since it has the potential to reach the target group on a large scale outside the workplace.

## 2.7 Gap Analysis and Research Questions

Having working experiences while studying is one of the marketing strategies to attract international students to Australia. Recently, there is a growing number of international students involved in the Australia labour market (Nyland et al., 2009). However, this sub-group of working population may even more vulnerable compared to their domestic peers (Nyland et al., 2009; Anderson et al., 2011b). It is reasonable to assume that international students may be at a greater risk of occupational accident and injury because they are facing the double burden of being young workers as well as migrant workers.

Of the existing research in areas related to this topic, the focus has been mainly on either young workers' injury experiences or migrant workers' health and safety issues. However, there is a scarcity of information regarding the potential conflict of having work experiences while studying in relation to health and safety issues. Furthermore, the role of universities in relation to accident and injury prevention has not been explored yet.

More research is needed that focuses on attaining a better understanding of young migrant workers' injury profile, international students' working experiences, OHS training experiences, injury experiences and work-study interference due to having paid employment. Furthermore, little is known about the ways in which international students experience their health and safety education and the role of the University in OHS awareness and education. Also, there appears to be no conceptual framework addressing the layers of international students' vulnerabilities in the Australian workplace. Further, a conceptual framework for effective OHS education in the university sector is needed in order to help prevent accident and injury among international students.

Thus to address the needs the following research questions are proposed. There are two main lines of investigation, addressing two broad research questions:

### **2.7.1 Broad research questions**

1. What are the work health and safety experiences of international students as young migrant workers?
2. What is the potential role of the university in terms of OHS awareness raising and education among international student employees?

### **2.7.2 Specific research questions**

*RQ1:* What are the time trends in all claims and serious injury claims among young migrant workers in SA? (Study 1)

*RQ2:* Are international students more likely than other young workers to make a serious injury claim? (Study 1)

*RQ3:* What are international students working hours, rate of pay and type of employment? (Study 1)

*RQ4:* What are international students' working status, sectors of employment, OHS training experiences, injury experiences and work-study interference? (Study 2)

*RQ5:* What factors are associated with international students' injury experiences and work-study interference? (Study 2)

*RQ6:* What are international students' perspectives on OHS training and education? (Study 3)

*RQ7:* What are international students' views about the current practice of OHS education? (Study 3)

*RQ8:* In terms of workplace accident and injury prevention, what are international students' perspectives on the role of the university in OHS education and awareness raising? (Study 3)

## **2.8 Research Design and Methodology**

A mixed methods design combining quantitative and qualitative methods with concurrent triangulation was deemed to be suitable to address the research questions (see Research Framework diagram in the Thesis Overview). There would

be equal priority for both quantitative and qualitative arms of the research (Creswell, 2013).

There were five criteria of for selecting this methodology. Firstly, workers in small businesses are often difficult to reach and study (McKay and Winkelmann-Gleed, 2005; Banton, 2008). Universities can provide a suitable environment for empirical data collection for international student workers in such businesses. Secondly, government data bases only provide a partial picture of occupational injury among young migrant workers due to under-reporting, particularly for those who work in precarious employment, in illegal work or in jobs that are not part of the workers compensation system. Thirdly, anonymous surveys and focus groups provide an opportunity for vulnerable workers to express views. Fourthly, a mixed methods design allows for triangulation and more robust evidence (Cresswell, 2008). Finally, a mix of methods is potentially more innovative and flexible, in that the mix can be tailored to the problem at hand.

It was decided that a quantitative approach using a cross sectional online survey would be conducted to gather data on international students' working experiences, OHS training experiences, and the impact of paid employment on international students' academic performance and injury experiences. Multivariate analyses would be undertaken to determine important predictors of injury experience and work-study interference.

A qualitative study using focus group discussions would be undertaken to obtain international students' views and stories of their working experiences, OHS training experiences, the potential conflict of having paid employment with academic requirements. Importantly, this study would explore international

students' perspectives on the current practice of University OHS education and the role of the University in OHS awareness and education, broadly construed.

Finally, an interesting and novel dimension for the qualitative research would be gained as the author is an insider (i.e. an international student).

# Chapter 3

## STATISTICAL REVIEWS

## **CHAPTER 3. STATISTICAL REVIEWS**

### **3.1 Introduction**

This chapter reports on two datasets. Firstly, it presents the analysis of the workers' compensation dataset for young workers in South Australia from 2004 to 2013 from SafeWork SA, designed to explore young (migrant) workers' injury profiles. After this, the chapter presents the analysis of data from the International Student Barometer (ISB) 2013 to explore international students' working hours, rates of payment and types of employment.

### **3.2 Analysis of workers' compensation dataset for young workers in South Australia from 2004 to 2013: Descriptive and analytical statistics of selected variables for young migrant workers**

#### **3.2.1 Introduction**

Young workers are over-represented in injury statistics and experience a higher risk of injury compared to the adult workforce (Schober et al., 1988; Miller and Kaufman, 1998; Delp et al., 2002; Jahan et al., 2010; Thamrin et al., 2010). According to SafeWork SA (2013), each year there are more than 4000 young workers experiencing Work-Related Injuries (WRIs) in SA. However, there is a shortage of specific information about serious injuries among young migrant workers who were born outside Australia and from Non-English Speaking Backgrounds (NESB).

In June 2012 there were more than 200,000 young people (15-24 years old) in South Australia that comprising around 13% of the total population of the state. About 40% of these 200,000 young people were involved in casual work and volunteering; most of them being students (SafeWork SA, 2013). However,



according to the Australian Bureau of Statistics data, the labour force (15-24 years old) is about 150,000 and has been steady from 2004-13. It is likely that international students represent a substantial fraction of South Australia's young workers. According to SafeWork SA (2013), approximately 13% of those young people were born outside Australia.

However, the regulatory body (SafeWork SA) and the workers compensation authority (WorkCover SA, now called Return to Work SA) do not collect data on whether workers are international students; and indeed the workers compensation dataset does not provide any specific code for this sub group. For the purpose of dataset analysis young migrant workers were deemed to be those 15-24 years of age that fit the existing fields of "born overseas" and "non-English speaking backgrounds".

The main purpose of this analysis was to identify time trends, associations between variables, and relevant predictor variables for injury claims, especially serious injuries (those requiring more than 2 weeks off work). Thus key variables were nation of birth, language background, age group, gender, being workers new to the job, employer size, time of injury, industry sector and exempt type<sup>1</sup>.

### ***3.2.1.1 Why serious injury?***

Serious injury includes the following (Alavi et al., 2013):

- a. Threat to Life: the risk of mortality imposed by the injury.
- b. Impairment: a potential damage or anatomical loss, for example, restricted joint movement.

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<sup>1</sup> Exempt type defines the relationship WorkCover has with the employer. Values: exempt is self-insured employer or government employer, non-exempt is an employer directly serviced by WorkCover.

- c. Resources used: reflected by the length of stay in hospital.
- d. Financial burden: costs of the treatment, compensation and rehabilitation of an injury together with the hardship of work-related arrangements and productivity loss.

Given this range of problems, it is important for OHS and public health workers to understand which members of the workforce are at greatest risk in order to prevent serious injuries.

According to SafeWork SA (2013), between 2008 and 2009 the total economic cost for work-related injury was estimated to be \$60.6billion, which represented about 4.8% of the national GDP. It is widely understood that minor injury is generally under-reported for a variety of reasons, whereas serious injury cannot be hidden.

Therefore, this study assumes that young migrant workers who have a part-time job in the formal sector are more likely to claim workers' compensation when they experienced serious injury than when they experienced minor injury. Thus, to track this information within the workers' compensation dataset, some variables related to serious injury claims among young migrant workers have been compared with young workers in general.

Based on this study's needs the following research questions have been formulated:

*RQ1*: What are the time trends in all claims and serious injury claims among young migrant workers in SA?

*RQ2*: Are international students more likely than other young workers to make a serious injury claim?

### **3.2.2 Methods**

The methods used for data collection and data analysis for the first study, focused on the SafeWork SA data set, are presented in the following sections.

#### **3.2.2.1 Data collection**

The Workers' Rehabilitation and Compensation Act 1986 (administered by WorkCover SA) allows for injured employees to lodge a claim for compensation (Government of South Australia, 2014). SafeWork SA is the government-run regulator where all reported compensation claims are aggregated. The dataset has been used since 1987 as a tool for monitoring work-related injuries in South Australia using the Type of Occurrence Classification System (TOOCS2) as coding guidelines.

A dataset for a ten-year period from 2004 to 2013 was obtained from SafeWork SA under a confidential agreement with the University of Adelaide. The data contained de-identified employment information such as demographic data (gender, age, industry sector, occupation, etc.), injury information (bodily location, when and where, the cause of injury, etc.) and outcome information (days lost from work and total expenditure).

### **3.2.2.2 Data analysis**

The first stage of the analysis of this subgroup was commenced by highlighting the trends over time for all claims, serious injury claims and the proportion of serious injury claims out of all claims among young workers following the elected variables. Then, multivariate analysis was used to identify the important factors relating to serious injury claims among young workers based on related variables.

Using SafeWork SA's operational definition of a serious injury claim, a serious claim is defined as a claim that resulted in an absence from work for 10 days or more. In other words, claims that need income maintenance for 10 days or more (IM 10) from WorkCover are categorised as serious injury compensation claims.

The analysis of the data comprises two stages:

1. Descriptive analysis using Excel to provide trends analysis for all claims, serious injury claims and the proportion of serious injury claims out of all claims.
2. Multivariate analysis with logistic regression to investigate the important factors that associated with the occurrence of serious injury claims among young workers.

### **3.2.2.3 Data cleaning**

For the purpose of serious injury claims, the data needed to be cleaned following the guidance of the SafeWork SA data custodian. Incidence, Rejected and Withdrawns (IRWs) for the Determination variable were excluded from the analysis together with young workers who experienced injury at 0.00 for the Injury\_time variable. The data coded as N/A or empty were not included in the analysis.

The data from 2004 to 2013 originally contained all cases from a wide range of ages; the total number of cases was 983,262. For the purpose of young workers' data analysis, the data included in this study are only for the workers who were 15 to 24 years old. Finally, after conducting data cleaning, the total cases included in the analysis were 49,795 claims.

#### **3.2.2.4 Coding**

Nine variables were investigated to explore their relationship with serious injury claims: Birth\_Nation, Language, Age\_Group, Gender, New Workers, Employer\_Size, Injury\_Time, Industry\_Sector and Exempt\_type. For the purpose of statistical analysis, the variables were recoded into two categories as dichotomous variables (see Appendix 1).

### **3.2.3 Results**

#### **3.2.3.1 Descriptive analysis**

##### *3.2.3.1.1 Time trends of all compensation claims between 2004 and 2013: comparison between serious claims and non-serious claims*

Figure 3.1 provides information related to the comparison between two time trends of young workers' work-related injury compensation claims for serious and non-serious claims from 2004 to 2013 in South Australia.

As can be seen from Figure 3.1, overall there was a gradual decrease of non-serious work-related injury (WRI) claims among young workers over the 10-year period of analysis. A similar trend occurred for serious claims from 2004 to 2010. However, the number of serious WRI claims slightly increased or plateaued in the last three years.

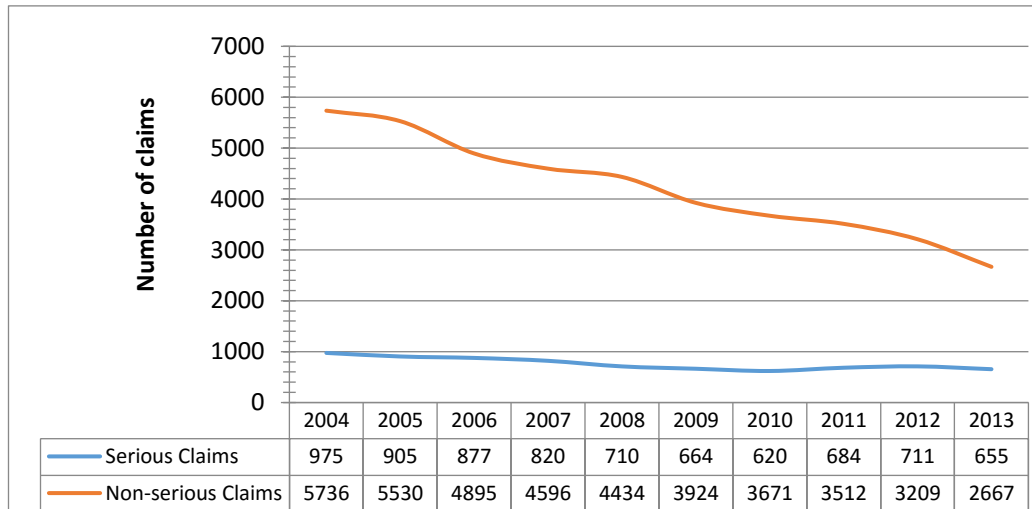


Figure 3.1. Time trend of all compensation claims based on serious and non-serious injury among young workers in SA from 2004 to 2013

The data in figure 3.1 represent claim numbers, rather than claim rates. Not all workers are covered by workers compensation, and in order to determine rates, the number of young workers covered by the workers compensation would need to be known. Unfortunately, such data are not available. However, as an approximation the denominator could be considered to be the labour force of 15-24 year olds.

As mentioned in Section 3.2.1, these data are available from the ABS, and for each year from 2004 – 2013, the data are as follows: 2004 (144, 600); 2005 (151, 200); 2006 (150, 900), 2007 (149, 500), 2008 (152, 100), 2009 (150, 600), 2010 (154, 100), 2011 (152, 300), 2012 (147, 200), and 2013 (146, 200).

It is clear that the values are relatively stable, and whilst Figure 3.1 could be modified to illustrate rates, the rates can easily be calculated as claims/per person (Jahan et al, 2010). The interpretation of the time trends in Figure 3.1 and subsequent figures with raw claims on the y axis is not altered.

*3.2.3.1.2 The comparison of time trends between all claims, serious claims and the proportion of serious claims out of all claims based on selected variables directed at young migrant workers' characteristics*

Figures 3.2 - 3.4 highlight the differences in time trends for (1) all claims, (2) serious claims, and (3) the proportion of serious claims out of all claims. Figure 3.2 demonstrates that generally there was a continuing drop in the number of all claims during the period of analysis. Meanwhile, Figure 3.3 shows the number of serious claims remained steady for the duration of the investigation.

However, the proportion of serious claims out of all claims reveals a different story, as illustrated in Figure 3.4. There was a significant increase in the proportion of serious WRI claims from 2011 to 2013. As will be discussed later, this was particularly the case for young workers with one or more of the following characteristics: non-Australian born, female, non-English speaking background (NESB), in the age group 20 to 24, working at night, working in an outdoor sector, working for a small/medium business, or working for a non-insured company. Figures 3.2 - 3.4 are now discussed in more detail with regard to nation of birth.

*3.2.3.1.3 The comparison of time trends between all claims, serious claims and the proportion of serious claims out of all claims based on nation of birth*

Figure 3.2 presents the time trend of all compensation claims among young workers in SA from 2004-2013 based on nation of birth; Australian born and Non-Australian born. The time trend for this category is comparable to the time trend of all compensation claims among young workers in SA from 2004-2013 in Figure 3.1.

The number of compensation claims by Australian born young workers decreased significantly from 5925 to 2121 claims during the period. Similarly, the

compensation claims of Non-Australian born young workers decreased as well (from 356 in 2004 to 178 in 2013)

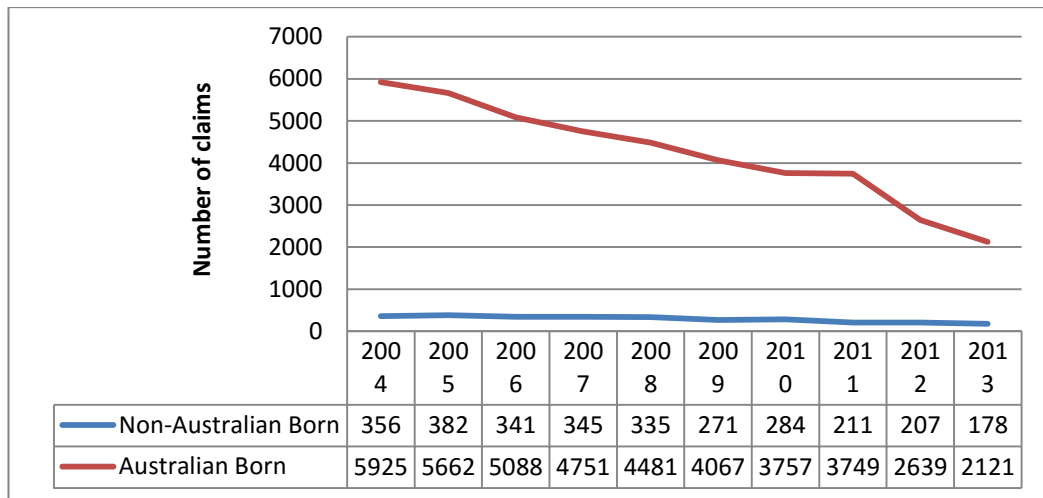


Figure 3.2. Time trend of all compensation claims based on nation of birth among young workers in SA from 2004 to 2013

Figure 3.3 provides the time trends of serious injury claims among young workers in SA 2004-2013 based on nation of birth. Although the number of serious injury claims lodged by Australian born young workers increased from 549 cases to 610 cases in 2011, overall the numbers tended to decline during this period. The trend of non-Australian young workers for this category also presented similar features.

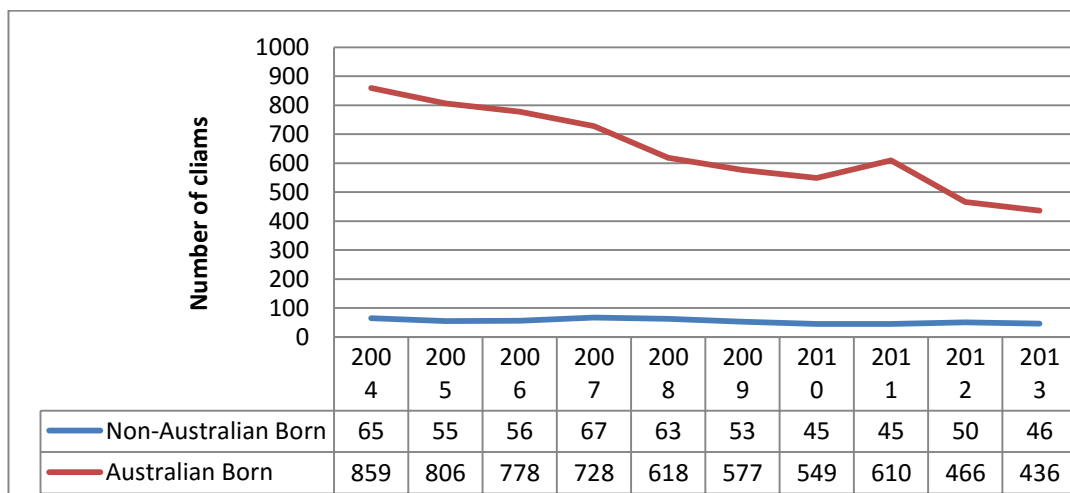


Figure 3.3. Time trend of serious injury claims based on nation of birth among young workers in SA from 2004 to 2013



The proportion of serious injury claims out of all claims among young workers in SA based on nation of birth is depicted in Figure 3.4. The number of serious injury claims by Australian born young workers was relatively steady at around 14% over the first 8 years, and then it started to increase in 2011 to 16.27% and reached 20.56% in 2013.

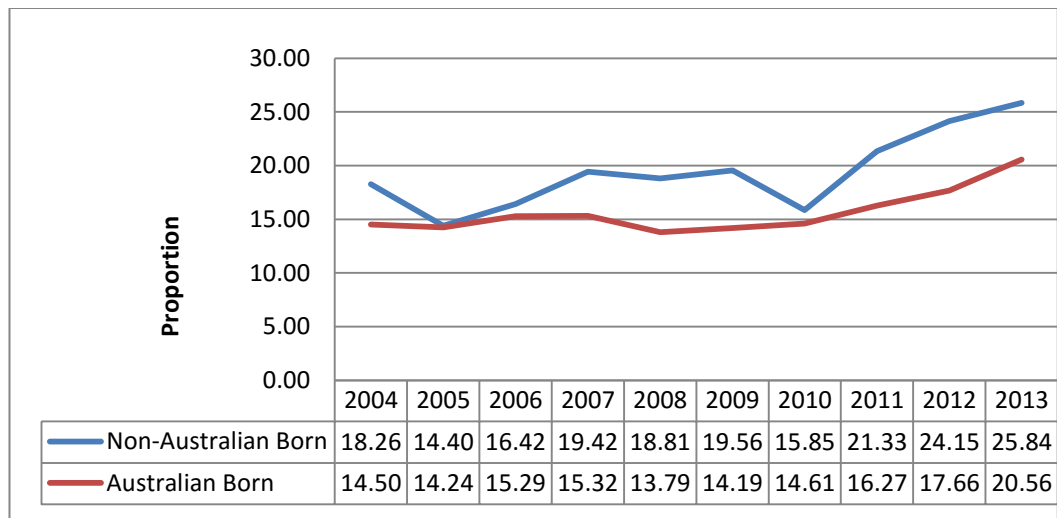


Figure 3.4. The proportion of serious injury claims from all claims based on nation of birth among young workers in SA from 2004 to 2013

Interestingly, the non-Australian born injury claims tended to increase and always remained above the number of Australian born injury claims over the given period, even though the proportion of claims suddenly dropped twice during the period, in 2005 and 2010. However, the proportion increased again in 2011 and reached more than 25% of serious claims out of all claims in 2013.

#### 3.2.3.1.4 *The comparison of time trends between all claims, serious claims and the proportion of serious claims out of all claims based on language background*

Figure 3.5 shows the comparison of time trends between NESB and English speaking workers. Overall, the numbers gradually decreased during the period of observation for both groups.

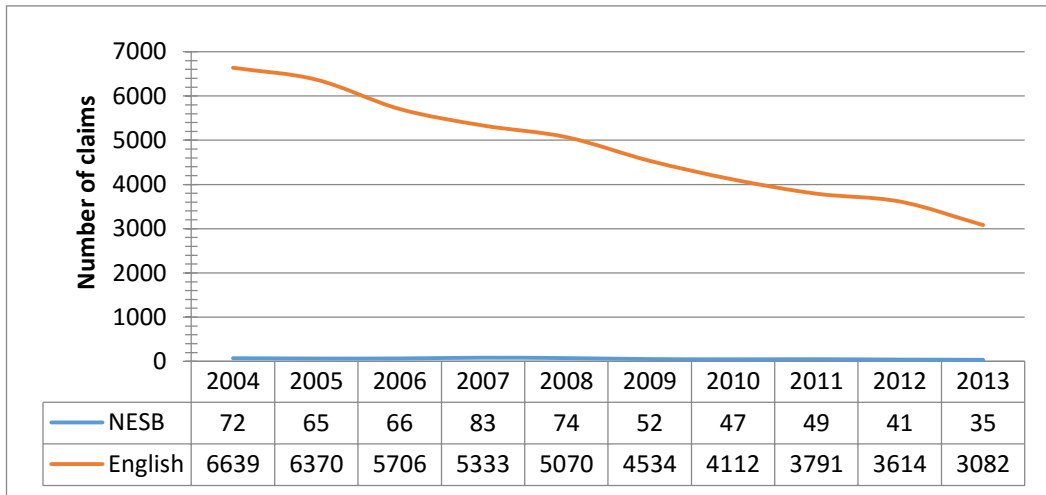


Figure 3.5. Time trends of all compensation claims based on language background among young workers in SA from 2004 to 2013

The serious injury claims among the NESB group compared to English speaking background group is presented in Figure 3.6. As can be seen from the figure, the numbers for both groups tended to decrease from 2004 to 2010. However, between 2011 and 2012 the number of claims for both groups increased and fell again in 2013.

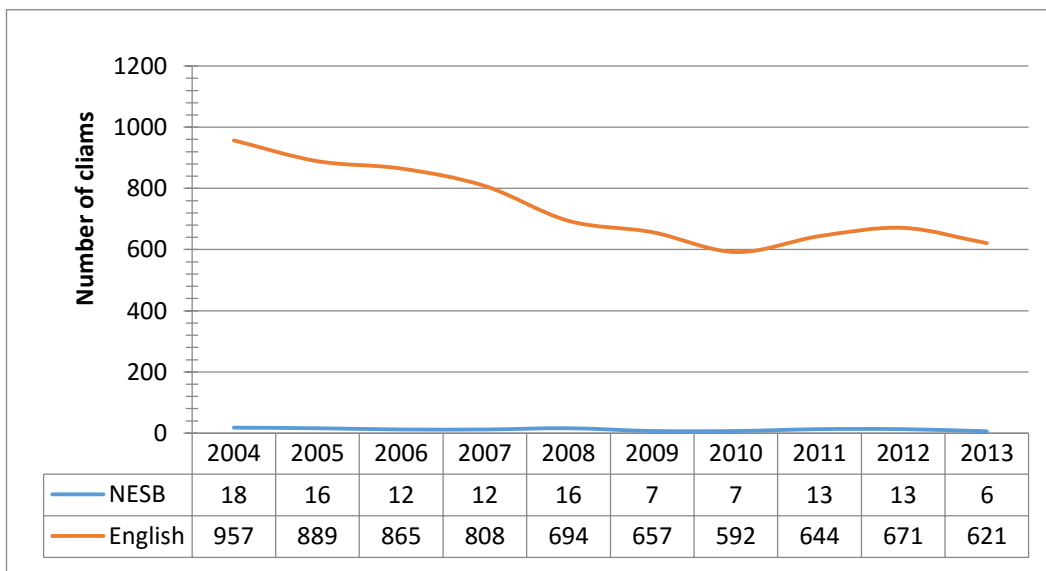


Figure 3.6. Time trends of serious injury claims based on language background among young workers in SA from 2004 to 2013

Moreover, Figure 3.7 shows the proportion of serious injury claims out of all claims for both NESB and English speaking background young workers. It can

be seen from the Figure that overall the proportion of serious claims out of all claims for English speaking group tended to increase over the ten-year period.

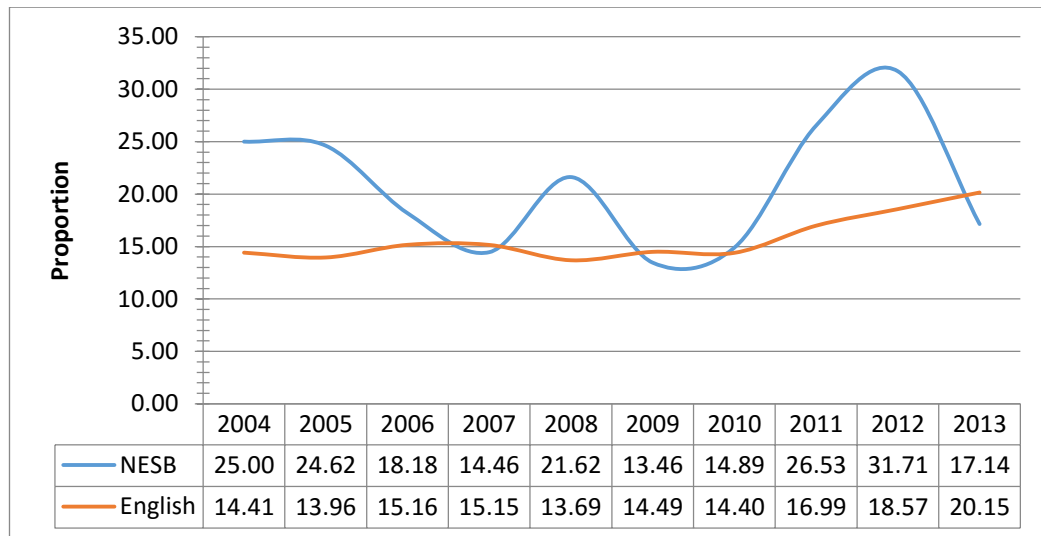


Figure 3.7. The proportion of serious injury claims out of all claims based on language background among young workers in SA from 2004 to 2013

However, for the NESB group, the trend shows an irregular pattern. The proportion of serious claims out of all claims among this group appeared to decline from 2004 to 2007 but increased in 2008 and decreased again between 2009 and 2010. This proportion turned to incline from 2011 and reached its peak in 2012 (31.71%) and fell again in 2013.

### 3.2.3.1.5 *The comparison of time trends between all claims, serious claims and the proportion of serious claims out of all claims based on age*

Figure 3.8 depicts the comparison of time trends between older (20-24 years old) and younger (15-19 years old) young workers. Overall, the trends gradually decreased during the ten-year period for both groups. The figure suggests that the number of all claims among older young workers was higher than the younger group for every single year between 2004 and 2013.

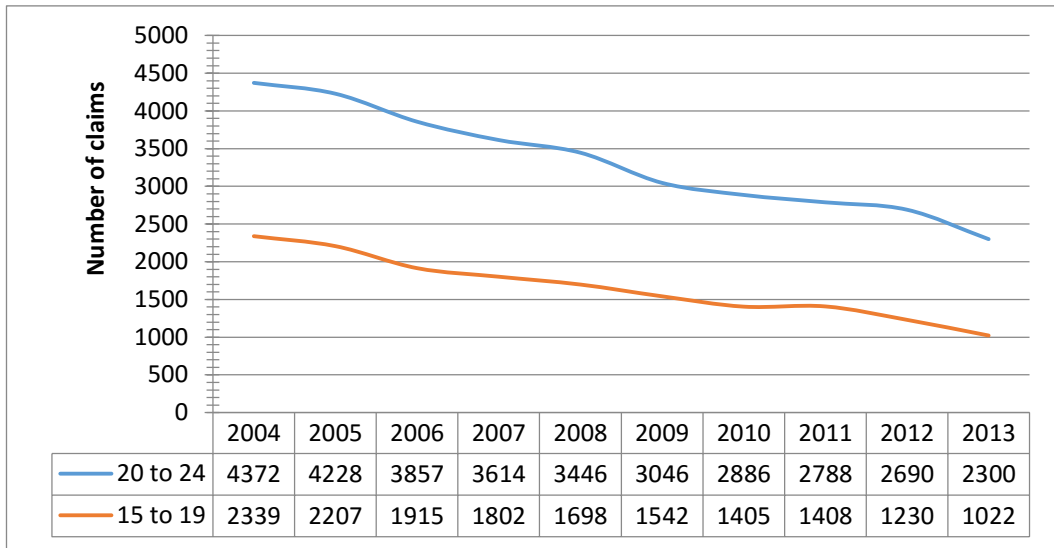


Figure 3.8. Time trends of all compensation claims based on age group among young workers in SA from 2004 to 2013

Turning to the trends of serious claims among older and younger young workers, Figure 3.9 indicates similar patterns between the groups. The numbers tended to decline from 2004 to 2010 and slightly increased between 2011 and 2012 and went down again in 2013.

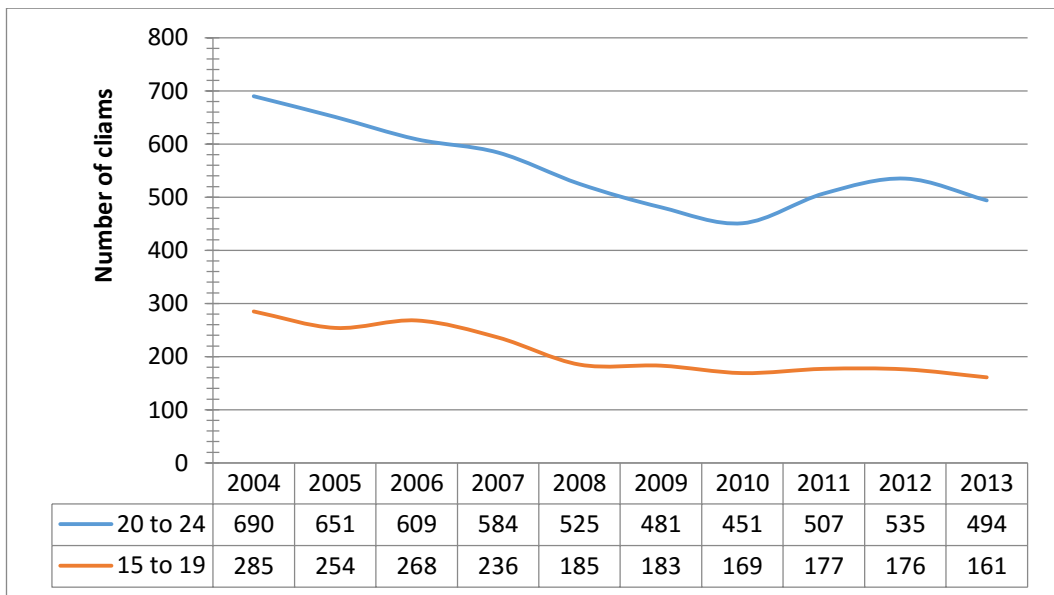


Figure 3.9. Time trends of serious injury claims based on age group among young workers in SA from 2004 to 2013

However, when it comes to the proportion of serious claims out of all claims, the trends of those two groups were slightly different, which is depicted in

Figure 3.10. Over the period, the proportion of serious claims among older young workers out of all claims tended to gradually increase from 15.78% in 2004 and reach the peak of 21.48% in 2013.

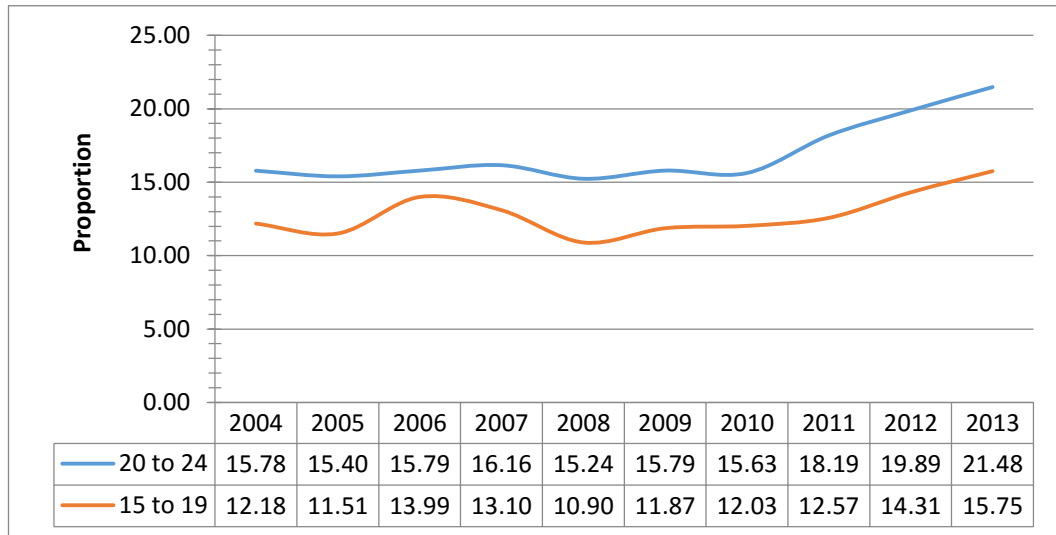


Figure 3.10. The proportion of serious injury claims out of all claims based on age group among young workers in SA from 2004 to 2013

The figure for the younger group fluctuated during the period with a very small increase from 2006, followed by a decline in 2008, and then rising again to reach the peak in 2013.

#### 3.2.3.1.6 *The comparison of time trends between all claims, serious claims and the proportion of serious claims out of all claims based on gender*

Following figures show the time trends comparison of injuries based on gender; between female and male young workers. Figure 3.11 shows the time trends comparison of all compensation claims and Figure 3.12 depicts the time trends comparison of serious injury claims.

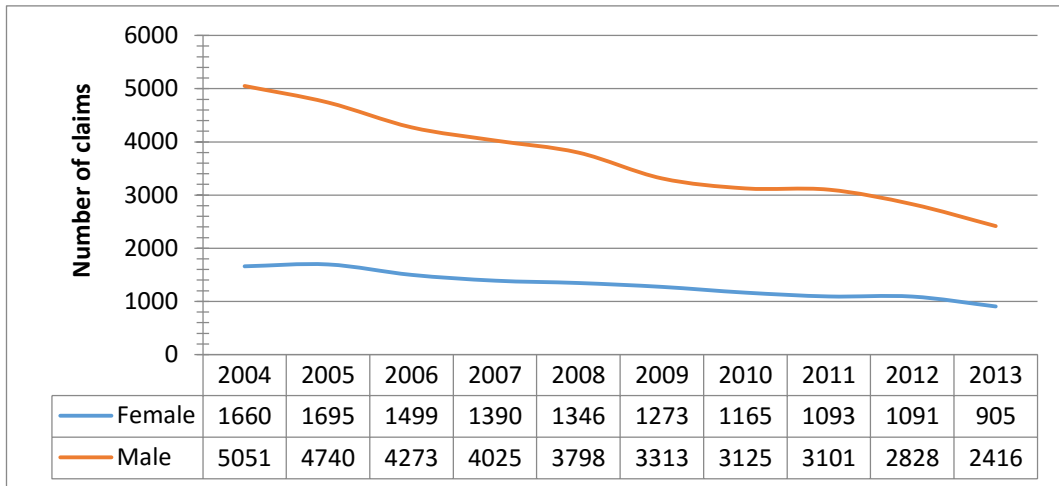


Figure 3.11. Time trends of all compensation claims based on gender among young workers in SA from 2004 to 2013

Both figures reveal almost the same time trends for both groups where during the period the number of all claims and serious claims tended to decrease. Furthermore, it can be seen from the figures that every single year, the number of male young workers to lodge compensation claims was higher than female young workers for both categories of all claims and serious injury claims.

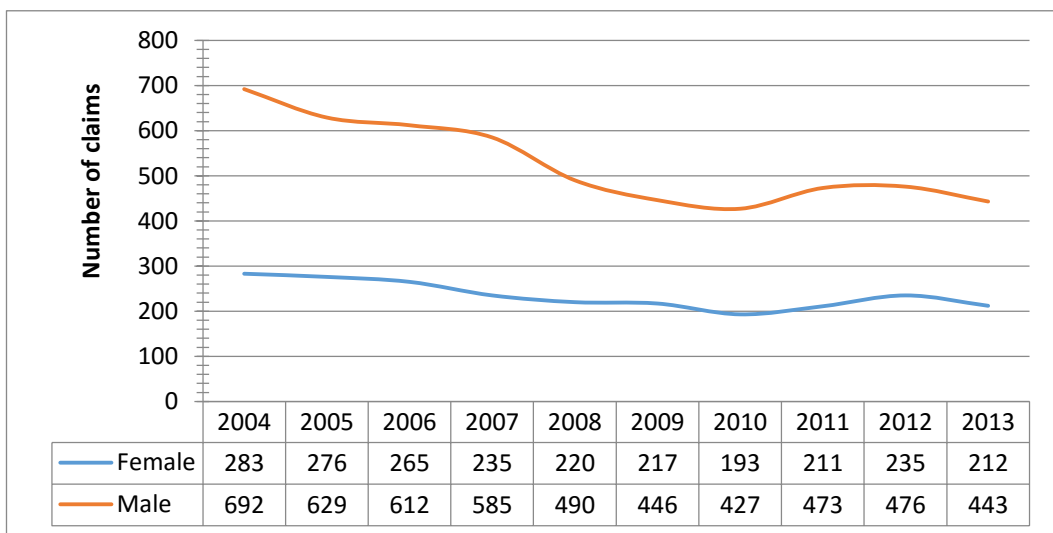


Figure 3.12. Time trends of serious injury claims based on gender among young workers in SA from 2004 to 2013

However, Figure 3.13 reveals a different story. The proportion of serious injury claims out of all claims among female young workers was always greater than that of males every year during the ten-year period of observation. In contrast with the two previous figures, this Figure suggests that the time trends tended to increase particularly in the last three years for both females and males.

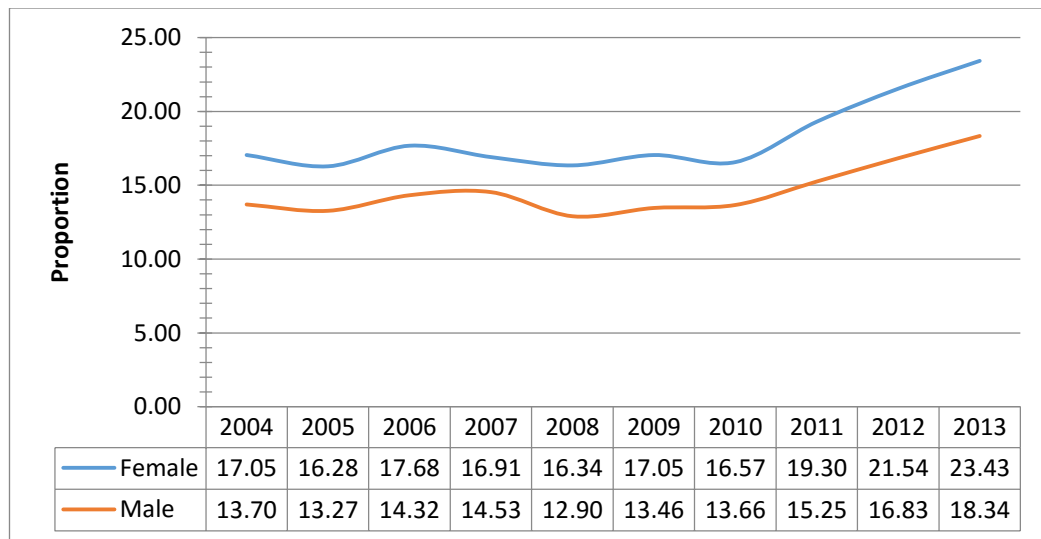


Figure 3.13. The proportion of serious injury claims out of all claims based on gender among young workers in SA from 2004 to 2013

### 3.2.3.1.7 *The comparison of time trends between all claims, serious claims and the proportion of serious claims out of all claims based on working experiences*

The following three figures provide information on the difference of time trends between the group of new workers and experienced workers in three categories: the number all compensation claims; the number serious claims; and the proportion of serious claims out of all claims.

A new worker was defined as meeting the following conditions: injury date–worker start date with employer less than 365; or (injury date–date of birth)/365 that is less than or equal to 18. Otherwise, they were categorised as experienced workers. In 2011 SafeWork SA discontinued collecting the data under the category of new workers, hence the apparent discrepancy in the figure below.

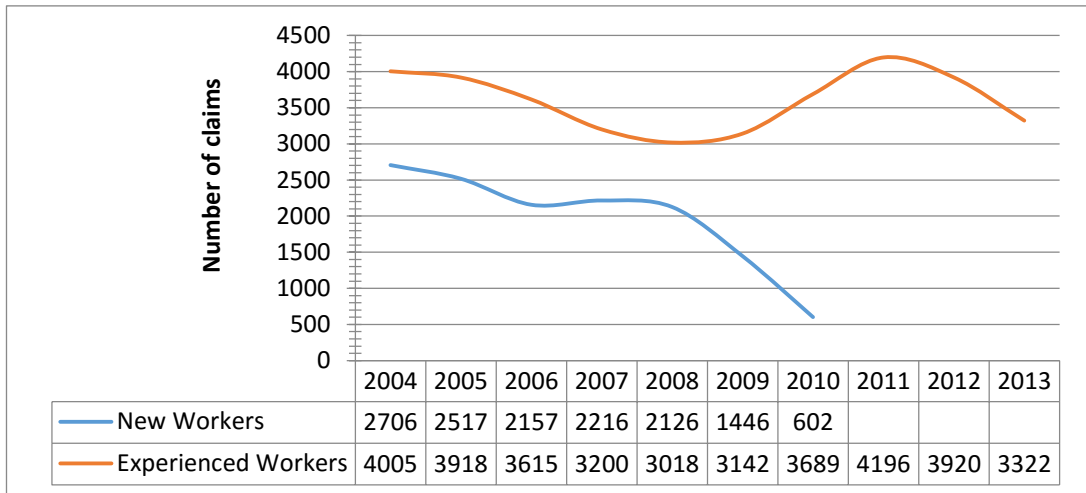


Figure 3.14. Time trends of all compensation claims based on working experience among young workers in SA from 2004 to 2013

Figure 3.14 and Figure 3.15 present information about the number of all compensation claims and serious injury claims for both new and experienced workers.

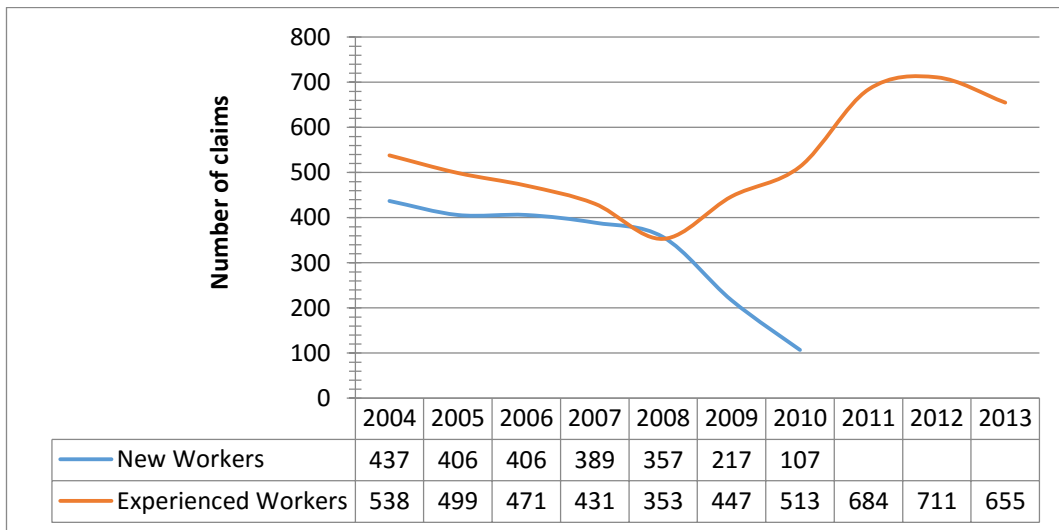


Figure 3.15. Time trends of serious injury claims based on working experience among young workers in SA from 2004 to 2013

As can be seen from these two figures, the number of all claims and serious claims among new workers declined from 2004 and reached the lowest position in 2010. In contrast, the number of experienced workers lodging compensation claims tended to increase from 2009 and reach the highest position in 2012.



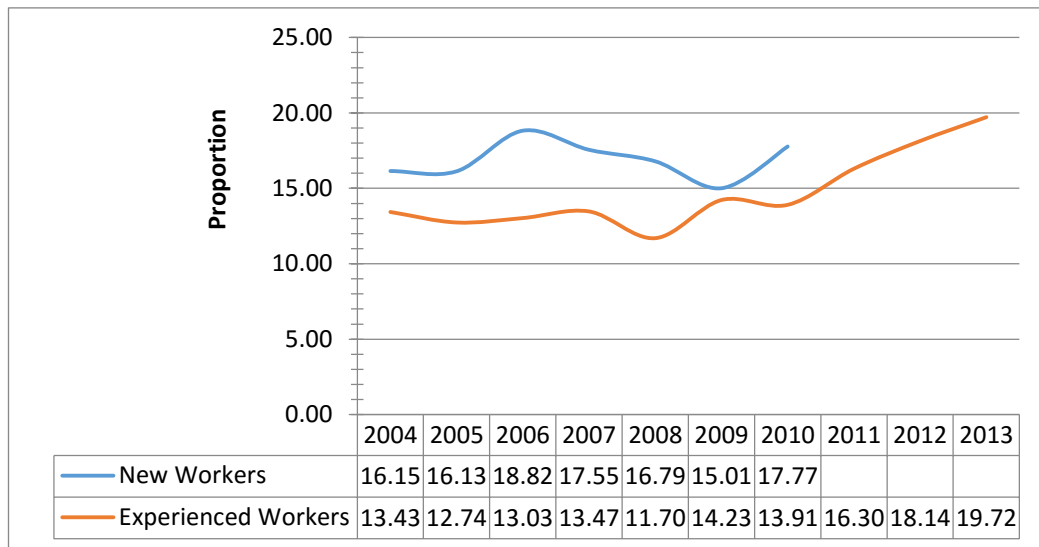


Figure 3.16. The proportion of serious injury claims out of all claims based on working experience among young workers in SA from 2004 to 2013

Furthermore, Figure 3.16 shows the proportion of serious injury claims out of all claims based on whether they were new workers and experienced workers. The figure shows that the proportion of serious claims out of all claims among the new workers group was consistently higher than that of experienced workers from 2004 to 2010. The proportion of serious injury claims out of all claims among experienced workers steadily increased from 16.30% in 2010 to 19.72% in 2013.

### 3.2.3.1.8 *The comparison of time trends between all claims, serious claims and the proportion of serious claims out of all claims based on time of injury*

The following figures illustrate the time trends of all compensation claims and serious claims, as well as the proportion of serious claims out of all claims based on time of injury among young workers in SA. The time of injury is divided into night and day shifts.

The number of compensation claims for injuries among young workers that happened in both day and night shifts has decreased more than 50% during the period as shown in Figure 3.17.

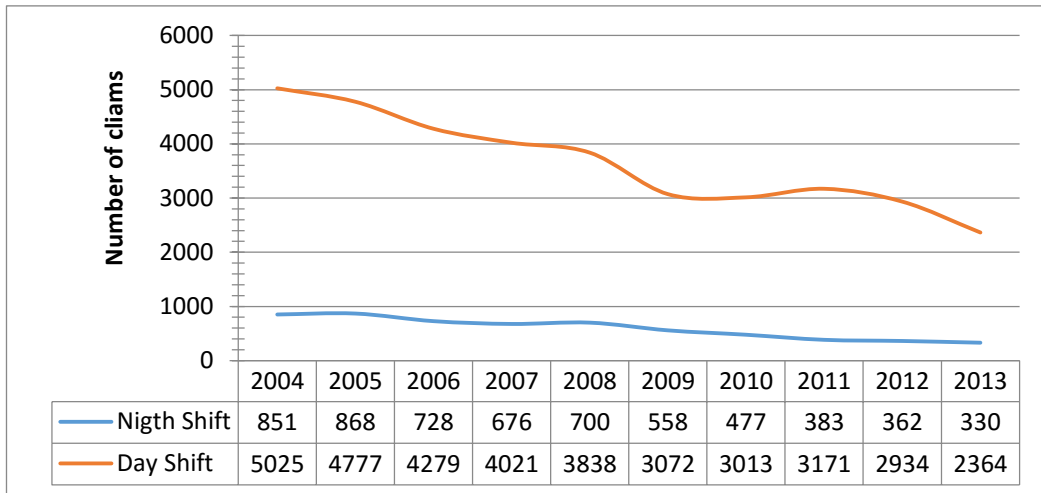


Figure 3.17. Time trends of all compensation claims based on time of injury among young workers in SA from 2004 to 2013

Meanwhile, Figure 3.18 shows that the serious compensation claims for these two categories presented a slightly different trend. For the day shift categories, the number of serious claims by young workers declined gradually from 681 claims in 2004 to 399 claims in 2010. The number of claims then increased around 25% in 2011 and continued to increase in the following year. At 2013, the number of claims reduced by 58 claims.

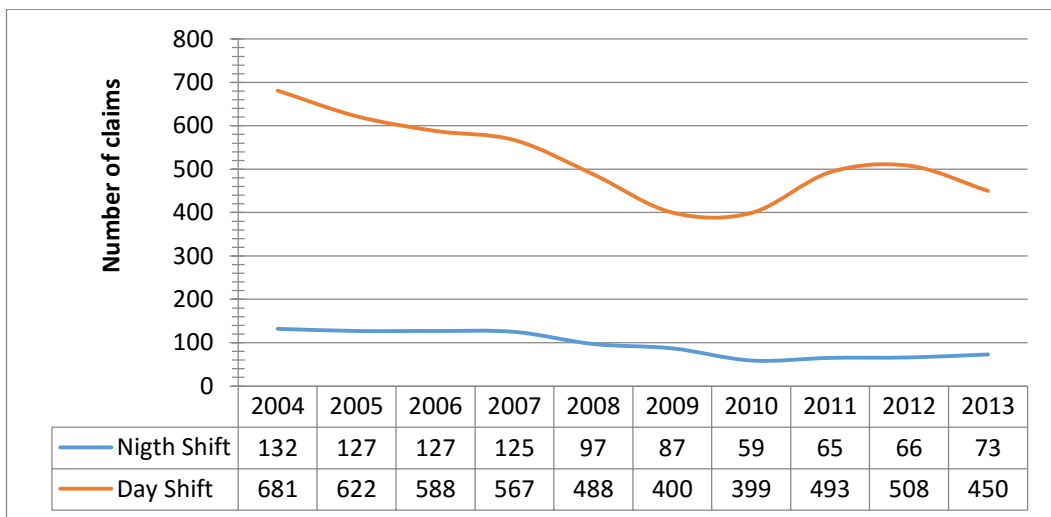


Figure 3.18. Time trends of serious injury claims based on time of injury among young workers in SA from 2004 to 2013

In contrast, the proportion of serious injury claims out of all claims in these categories presented totally different trends. As can be seen in Figure 3.19, in general, the proportion serious claims out of all claims for the injuries during night shifts tended to increase overall, despite decreasing in 2008 and 2010. The proportion of serious claim injuries during day shifts remained steady around 13% from 2004 to 2010, then it escalated to 19% in 2013.

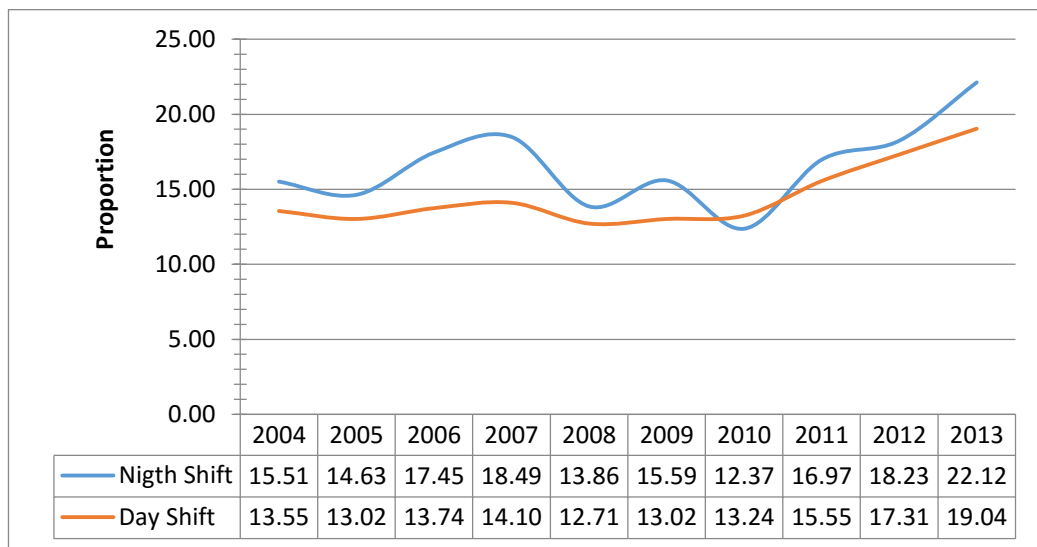


Figure 3.19. The proportion of serious injury claims out of all claims based on time of injury among young workers in SA from 2004 to 2013

### 3.2.3.1.9 *The comparison of time trends between all claims, serious claims and the proportion of serious claims out of all claims based on employer size*

The compensation claims by young workers based on employer size is provided in this section. The employer size is divided into two categories: large business; and small and medium businesses combined.

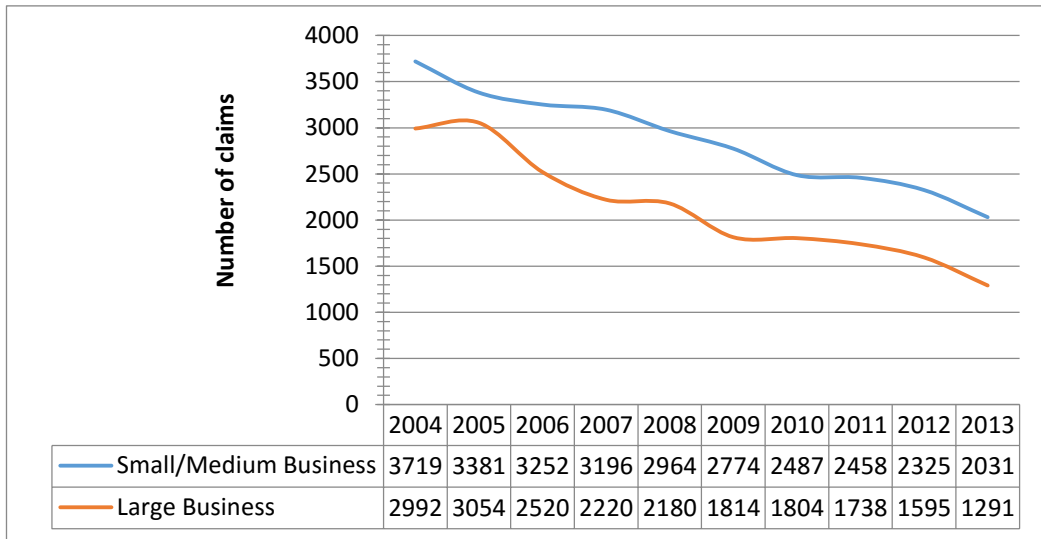


Figure 3.20. Time trends of all compensation claims based on employer size among young workers in SA from 2004 to 2013

Figure 3.20 depicts that both groups showed a decrease in the number of all compensation claims by their young workers during the ten-year period. Interestingly, the number of compensation claims of young workers who worked in small and medium businesses was always higher than the claims of their colleagues working in large business in every year of analysis.

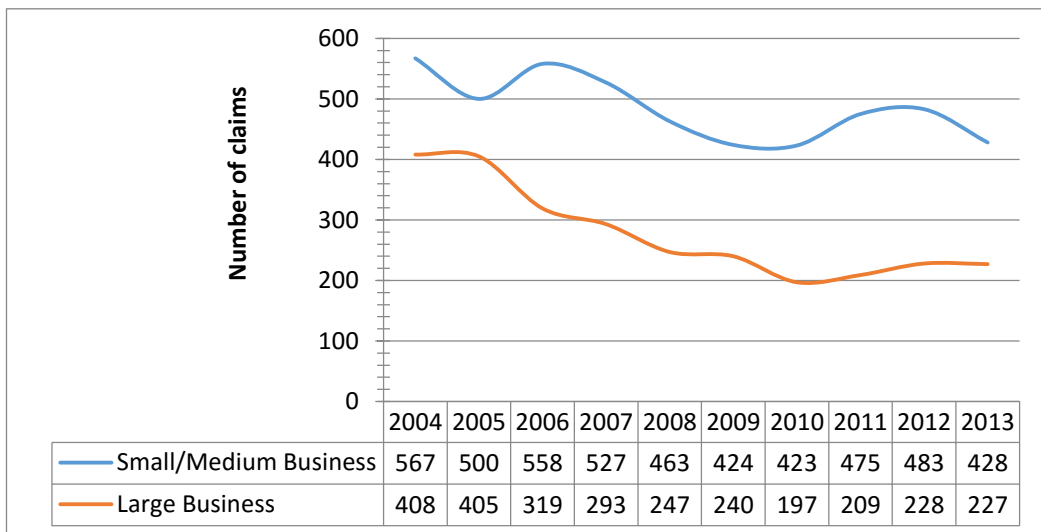


Figure 3.21. Time trends of serious injury claims based on employer size among young workers in SA from 2004 to 2013

Similar trends are also found in the number of serious injury claims among young workers for these groups of employers, as illustrated in Figure 3.21. The

number of serious injury claims by young workers in large business reduced to around 40%, while the claims from young workers in small and medium business reduced to almost 55% from 2004 to 2013.

The proportion of serious injury claims by young workers from large business and small/medium business are depicted in Figure 3.22. The figure shows that the proportion of serious injury claims by young workers had increased from 13.64% in 2004 to 17.58% in 2013 for large business, and 15.25% to 21.07% in small/medium business over the same period.

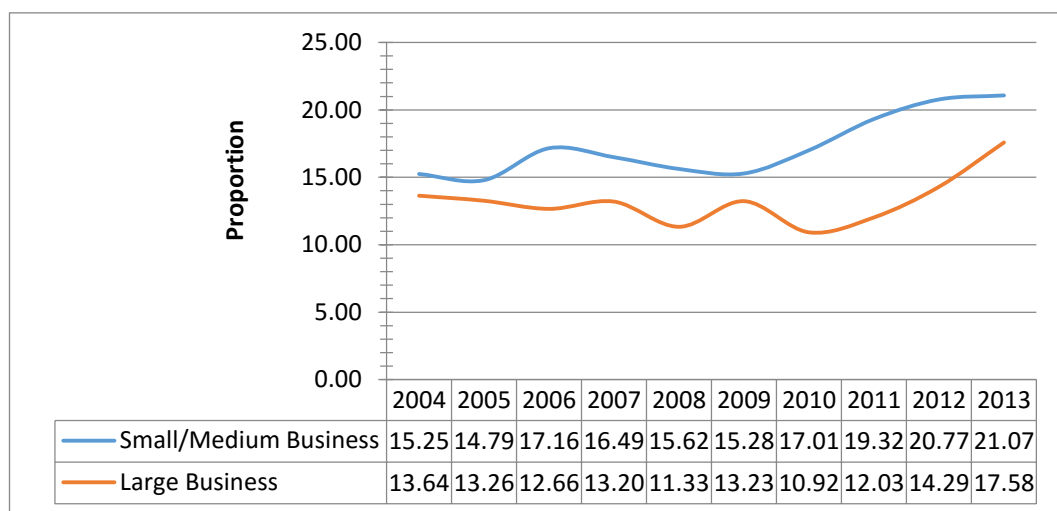


Figure 3.22. The proportion of serious injury claims out of all claims based on employer size among young workers in SA from 2004 to 2013

### 3.2.3.1.10 The comparison of time trends between all claims, serious claims and the proportion of serious claims out of all claims based on industry sector

The following figures present time trends of the number all compensation claims and serious injury claims together with the proportion of serious injury out of all claims based on sector of industry, that is, outdoor and indoor work. Figure 3.23 shows the time trends of all compensation claims based on industry sector among young workers in SA from 2004 to 2013 and Figure 3.24 provides the time trends of serious claims for this category.

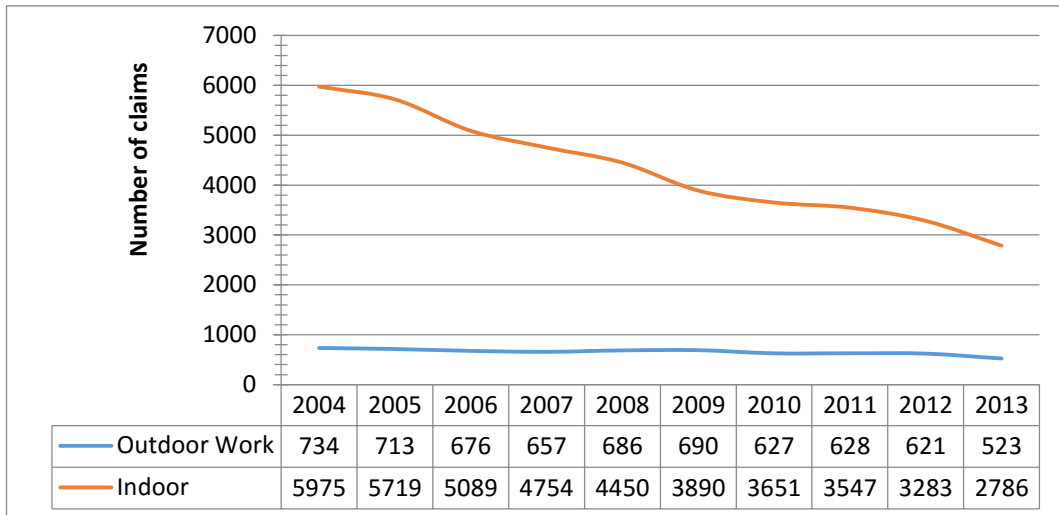


Figure 3.23. Time trends of all compensation claims based on industry sector among young workers in SA from 2004 to 2013

Figure 3.23 and 3.24 demonstrate that overall the number of all claims in general, as well as serious claims, tended to drop during the period. Furthermore, it can be seen from the two figures that in every single year the number of workers who were employed in the indoor sector to lodge compensation claims were always higher than the outdoor sector.

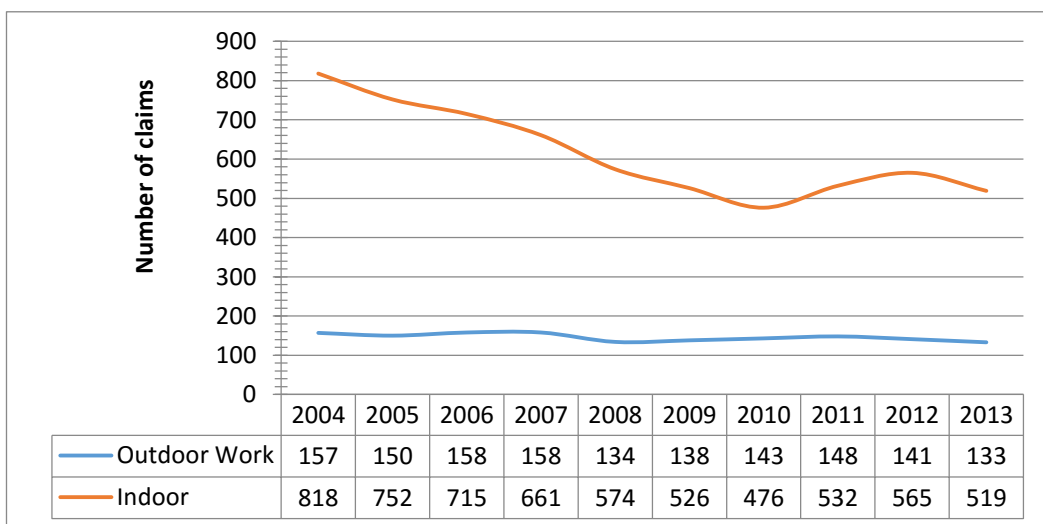


Figure 3.24. Time trends of serious injury claims based on industry sector among young workers in SA from 2004 to 2013

However, Figure 3.25 provides a different perspective. When it comes to the proportion of serious claims out of all claims, the proportion of workers who worked in outdoor sectors and claimed worker’s compensation grew steadily higher over the 10-year period of observation compared to the indoor sector.

Moreover, the proportion of compensation claims for both the outdoor and indoor sectors tended to increase overall, although with some fluctuations, from 2004 and reached its peak in 2013.

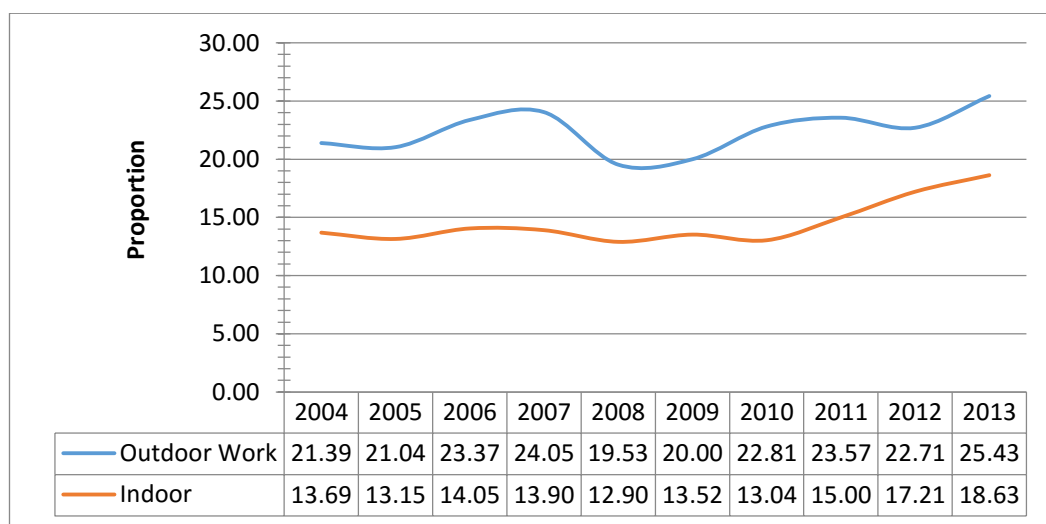


Figure 3.25. The proportion of serious injury claims out of all claims based on sector of industry among young workers in SA from 2004 to 2013

### 3.2.3.1.11 The comparison of time trends between all claims, serious claims and the proportion of serious claims out of all claims based on exempt type

The last three figures provide information considering the number of all compensation claims, serious claims and the proportion of serious claims out of all claims based on exempt type. The relationship between WorkCover and the employer can be classified into three groups: ‘exempt’ if it is a private or self-insured employer; ‘crown’ if a government employer; and ‘non-exempt’ if the employer is directly serviced by WorkCover.

Figure 3.26 shows the comparisons between non-exempt and crown/private companies. It can be seen from the figure that the number of all compensation claims among workers from non-exempt companies decreased gradually from 5130 cases in 2004 to reach the bottom line in 2013 with 2649 claims. A similar feature was found for crown/private companies where the number of all claims declined more than 50% in during the ten-year period. Furthermore, the gap between the numbers of claims between the two categories tended to get smaller towards the end of the period of observation.

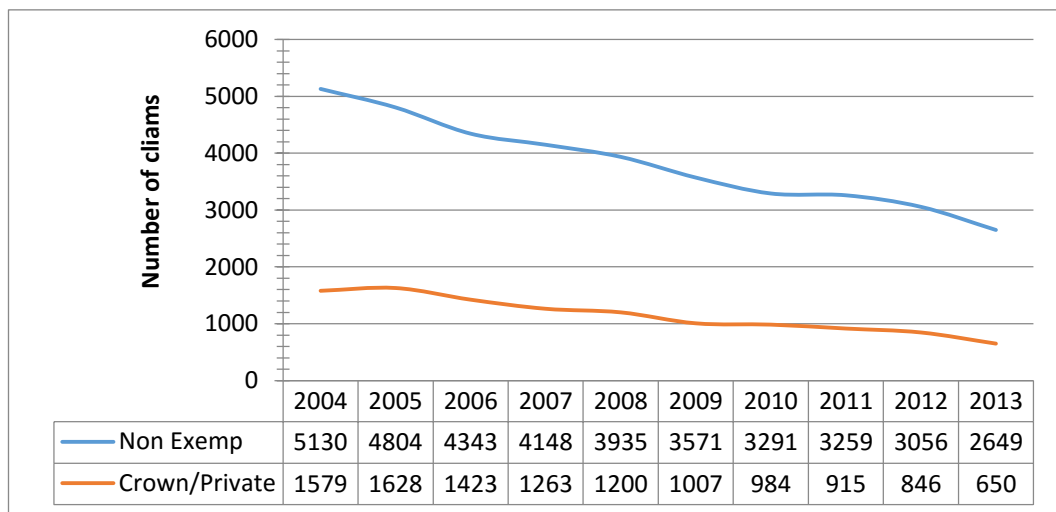


Figure 3.26. Time trends of all compensation claims based on exempt type among young workers in SA from 2004 to 2013

Time trends of serious injury claims based on exempt type are presented in Figure 3.27. The Figure reveals that overall the time trends of the serious injury claims from both types of companies (non-exempt and crown/private) tended to fluctuate over the period. Furthermore, it is clear that every year the number of serious injury workers' compensation claims from non-exempt companies was always higher than for crown/private companies.



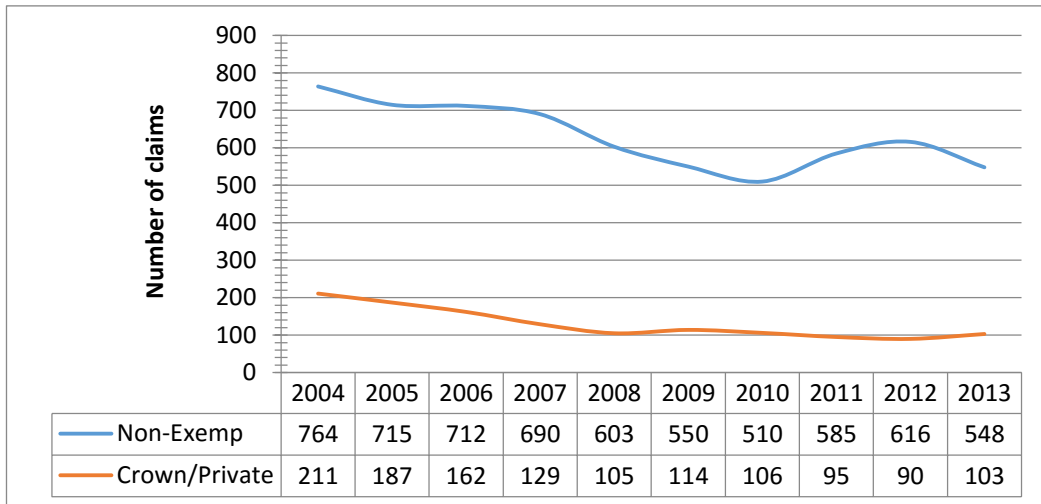


Figure 3.27. Time trends of serious injury claims based on exempt type among young workers in SA from 2004 to 2013

Figure 3.28 presents the proportion of serious injury claims out of all claims for both insured and self-insured companies. As can be seen from the Figure, in 2004, the proportions of serious claims out of all claims for insured and self-insured companies were almost the same with 14.89% and 13.36%, respectively.

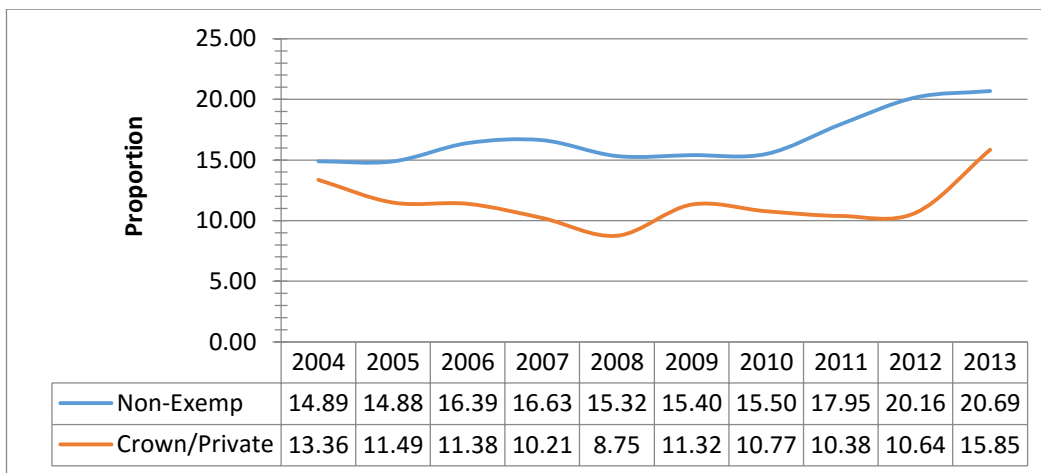


Figure 3.28. The proportion of serious injury claims from all claims based on exempt type among young workers in SA from 2004 to 2013

However, the gap between those two trends tended to be greater from 2005 until 2008. In 2013, this gap became smaller again where the proportion for non-exempt companies remained steady, but for crown and private companies increased significantly from 10.64% (2012) to 15.85% (2013).

### 3.2.3.2 *Multivariate Analysis*

The data from 2004 to 2013 were merged into one dataset for the purpose of investigating the important factors that are associated with the occurrence of serious injury claims among young workers. Logistic regression analysis was used, with results presented in Table 3.1.

Table 3.1. Logistic regression predicting likelihood of serious injury claims among young workers from 2004-2013 in SA

| Predictor Factors                           | Sig. | Odd Ratio (OR) | 95% CI for OR |       |
|---|------|----------------|---------------|-------|
|   |      |                | Lower         | Upper |
| Nation of Birth (being Non Australian Born) | .001 | 1.20           | 1.07          | 1.35  |
| Language (being NESB)                       | .009 | 1.38           | 1.09          | 1.76  |
| Age Group (being 20 to 24)                  | .000 | 1.38           | 1.29          | 1.47  |
| Gender (being Female)                       | .000 | 1.51           | 1.41          | 1.61  |
| New Worker                                  | .000 | 1.13           | 1.06          | 1.20  |
| Employer Size (small/medium)                | .000 | 1.15           | 1.07          | 1.24  |
| Time of Injury (Night Shift)                | .000 | 1.31           | 1.21          | 1.43  |
| Industry sector (Outdoor work)              | .000 | 1.87           | 1.73          | 2.02  |
| Exempt Type (non-Exempt)                    | .000 | 1.40           | 1.27          | 1.55  |

As can be inferred from the table, all independent variables were found to be statistically significantly associated with serious injury claims. The results are thus interpreted to indicate the following list of risk factors.

1. Being a young worker who was born outside Australia increases the likelihood of lodging serious injury claims by 1.20 times after controlling for the other factors in the model.

2. Being an NESB young worker increases the likelihood of experiencing serious injury in the workplace by 1.38 times after controlling for the other factors in the model.
3. Being an older young worker (20 to 24) increases the likelihood of lodging serious injury claims by 1.37 times after controlling for the other factors in the model.
4. Being female increases the likelihood of lodging serious injury claims by 1.51 times after controlling for the other factors in the model.
5. Being a new worker increases the likelihood of lodging serious injury claims by 1.13 times after controlling for the other factors in the model.
6. Being a young worker who works in small/medium business increases the likelihood of lodging serious injury claims by 1.15 times after controlling for the other factors in the model.
7. Being a young worker who works at night increases the likelihood of lodging serious injury claims by 1.31 times after controlling for the other factors in the model.
8. Being a young worker who works in outdoor industry sector increases the likelihood of lodging serious injury claims by 1.87 times after controlling for the other factors in the model.
9. Being a young worker who works in non-self-insured company increases the likelihood of lodging serious injury claims by 1.4 times after controlling for the other factors in the model.

### 3.2.3.3 *Summary of study findings*

This study addresses an important but under-explored issue within young workers' occupational health safety. It is the first study to reveal the profile of young migrant workers' serious injury experiences by exploring workers' compensation data.

Using variables related to young migrant workers, such as being non-Australian born and being from a non-English speaking background, the findings of this study revealed that there were different trends between the number of all compensation claims, the number of serious injury claims and the proportion between serious injury claims out of all claims from 2004 to 2013 among young migrant workers.

In answer to research question 1, it was found that the number of all claims and serious injury claims for young workers who are non-Australian born and from a non-English speaking background (NESB) tended to decline in the period 2004 to 2013. On the other hand, the proportion of serious injury claims out of all claims for these workers showed no clear trend in the period.

In answer to research question 2, this study found that serious injury claims were more likely if the young worker had the following characteristics: born outside Australia; from a non-English speaking background; is an older young worker (20-24 years old); female; works in a small/medium company; works at night; works in an outdoor setting, **or** works in non-self-insured company.

International students are not Australian born and are likely to be from an NESB. It can be inferred that this sub-group of young workers is thus at greater risk of experiencing serious injury compared to local young workers.

### **3.3 International Student Barometer (ISB) 2013: Exploring international students' working hours and rates of payment**

#### **3.3.1 Introduction**

Numerous studies have investigated international students' working hours together with their rates of payment (Parkin, 2008; Howe, 2013; Chau, 2015). At the same time, this issue has been reported frequently in the media, such as TV, radio, magazine, newspapers, etc., which confirm that international students face exploitation or even discrimination in the workplace (Watson, 2014; McNeilage 2015). However, most of those reports report international students' problems case by case.

There is, however, a paucity of research systematically exploring international students as a group of young workers through survey. Detailed information about international students' working hours and their rates of payment as a group of young workers are lacking. This study reviews the ISB survey 2013 data to explore international students' working experiences focusing on their working hours, rate of pay and type of employment.

### **3.3.2 What is the ISB?**

The International Student Barometer (ISB) is an online survey conducted by an external and independent research company called i-graduate. The survey is run regularly every year around the world. On a regular basis, the University of Adelaide has conducted the survey since 2008. The survey provides valuable information about a wide range of aspects that influence students' satisfaction with their experiences as students. Students provide feedback not only about their academic lives, such as the quality of teaching and research, curriculum and educational system, but also they expressed opinions about their social lives, such as friendship, living costs, accommodation quality, facilities and surrounding environment, and personal safety (International Student Centre, 2015). The main objective of the survey is to obtain information that can be used to improve services for international students (International Student Centre, 2015).

In 2013, one section about international student working experiences was included in the survey. The section comprises three main aspects related students' working hours (how many hours international students devote to the workplace per week), the types of job that they are involved with (paid or voluntary) and rate of payment. Interestingly, in 2014 and 2015, a similar survey had been done for the University of Adelaide, but did not collect information regarding international students' working lives anymore (International Student Centre, 2015).

### **3.3.3 ISB 2013 Relevance and the Research Questions**

One of the most important reasons for international students to choose Australia as their destination country for study is the high opportunity for having a job while studying (Study Australia, 2015). Furthermore, in comparison to some

other countries such as the UK, US and Canada, Australia has fewer restrictions on students work opportunities (EMSA Team, 2015).

Despite this, in many cases international students breach their visa entitlements due to misunderstanding or misinterpretation of how many hours they can work. Many of them are even intentionally exceeding their visa conditions because their wages are very low, while others undertake illegal work. Furthermore, many international students do not understand their rights and the legally required conditions in the workplace (McNeilage, 2015).

Some restrictions apply to international students' entitlement to have a job while studying. According to the Department of Immigration and Citizenship (2009), international Students are not permitted to have a job until their course has started. Overseas students are entitled to work up to 20 hours per week or 40 hours per fortnight during their academic/study period and they can have a job with unlimited working hours during study breaks/vacation (Department of Immigration and Citizenship, 2010).

For international students who hold subclass 574 visas (higher degree research students), they have permission to work unlimited hours once their research program has started. Family members or students' dependents also are prohibited to work until the student commences their program. All students are entitled to work up to 20 hours per week all the time. For higher degree research students (master/doctorate) who hold student visa subclass 573, 574 and 576, their family/spouse can work unlimited hours when the students have commenced their research program (Department of Immigration and Citizenship, 2010).

The Australian Government through the Fair Work Ombudsman encourages international students to address their rights and conditions in the workplace. Under the Fair Work Act 2009, most Australian workplaces are obliged to apply a system that ensures minimum rights and conditions comply in the workplace. Known as the National Employment Standards (NES), this system became effective on 1 January 2010 and demands that all workers receive 10 basic minimum entitlements (Fair Work Commission, 2014).

The standards comprise: maximum weekly hours of work; requests for flexible working arrangements; parental leave and related entitlements, annual leave; personal/carer's leave and compassionate leave; community service leave; long service leave; public holidays; notice of termination and redundancy pay and provision of a fair work information statement. These standards also are known as the '2010 awards'. In terms of payment, these awards provide information related to:

- Minimum rate of pay – employer can pay a worker more than the minimum if they want to, but they cannot pay their employee less.
- When worker will be paid – employee should be paid at least once a month.
- Workers are entitled to more money (such as penalty rates) for working nights, weekends or public holidays, or overtime pay for working outside their regular hours.
- Workers should be paid an allowance for doing certain tasks.
- The minimum number of hours per shift that worker can be rostered and paid for.
- Worker should be taking breaks during their shift.



- How much notice that workers need to give their employer if they want to resign from their jobs (Fair Work Commission, 2014).

The data from ISB 2013 at the University of Adelaide was used here to explore international students' working experiences. Since the survey was not designed specifically to explore students' working experiences, the data on this aspect was very limited.

There were five questions included in the survey that are related international students' working experiences:

- a. Employment directly related to field of study (paid) (In a normal 7 day week, how many hours do you spend on the following?)
- b. Employment directly related to field of study (unpaid) (In a normal 7 day week, how many hours do you spend on the following?)
- c. Employment not related to field of study (paid) (In a normal 7 day week, how many hours do you spend on the following?)
- d. Employment not related to field of study (unpaid) (In a normal 7 day week, how many hours do you spend on the following?)
- e. How much do you earn approximately per hour?

From these questions, the following research question were formulated:

|  |
|--|
| <p><i>RQ3</i>: What are international students' working hours, rates of payment and types of employment?</p> |
|--|

### **3.3.4 Methods**

The ISB survey was distributed by the International Student Centre (ISC) of the University of Adelaide. In this study, data from ISB 2013 was used since this was the only survey that included international student's working hours and the rate of payments.

It is assumed that all international students who were registered as university students onshore and offshore will receive the survey information and be invited to join the survey. The format of the survey was mainly close-ended questions, but some questions requiring student's comments were formatted as open-ended questions. To complete the survey, students needed about 15 to 20 minutes (Bhaskarraaj, 2015).

All students who had completed the survey had a chance to win a \$1000 cash prize from i-graduate and could donate the prize to charity if they chose. Additionally, the University provided a weekly \$200 gift voucher for one month to increase students' willingness to participate to the survey.

#### ***3.3.4.1 Study population***

All international students were invited to join the survey from all study programs. Therefore, it includes information from undergraduate and postgraduate (Masters and PhD) students; on campus full time or part time; and students on exchange programs and study abroad programs. 1,649 respondents participated in this survey. It can be seen from Figure 3.29 that more 60% of international students were in the group of age 20-25 yr. old (older young workers).

From the total of participants, 656 international students claimed that they have experience of working while studying in a paid or a voluntary job. In this study

there was a possibility for one student to provide multiple responses to individual questions.

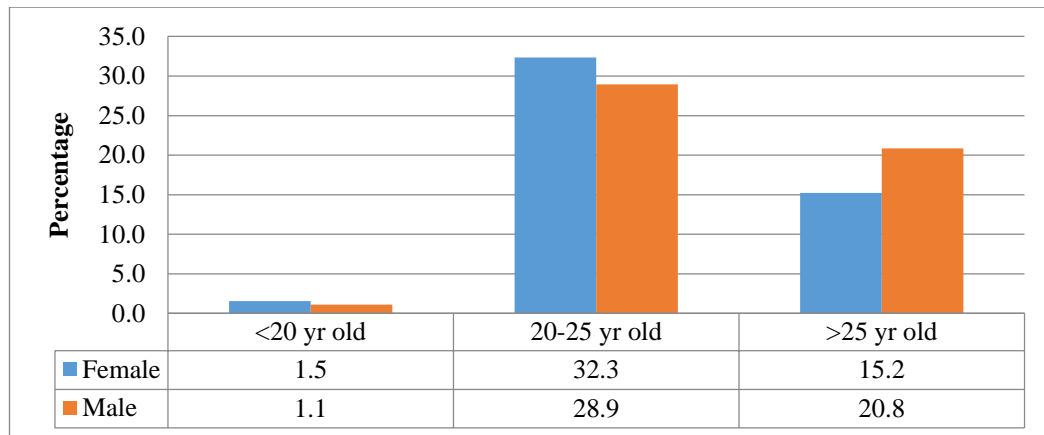


Figure 3.29. The distribution of the ISB survey respondents based on age and gender

This means that the survey allowed one student to give feedback that he/she has experiences in a paid job as well as an unpaid job. Hence, the number of students who have experience of working while studying could be the same or less than 656 students.

#### 3.3.4.2 Data collection and analysis

The data were collected by i-graduate and the University of Adelaide received the data as an Excel pivot table file with data keys in another sheet in the same file. The ISB data 2013 was gained after approval from ISC, who recommended asking the University manager to provide access.

Since the data originally provided a wide range of students' satisfaction aspects and was not specifically conducted to collect information regarding students' working experiences, the data were sorted to find variables that were relevant to the research objectives. As mentioned above, there were five relevant variables and the Excel program was used to produce tables and figures for descriptive analysis.

### 3.3.5 Results

#### 3.3.5.1 Working hours for paid employment

As can be seen from Table 3.2, the vast majority of students spent less than 20 hours per week in a paid job directly related to their field of study. The highest percentage of this group, 18.4% (21 students) claimed that they spent only 2 hours a week working. However, 10 students (about 9 % of them) mentioned that they work more than 20 hours a week.

Table 3.2. International students' working hours per week for paid jobs in the sector of employment directly related to field of study

| Working hours per week | Number of students | % of total    |
|------------------------|--------------------|---------------|
| 1                      | 10                 | 8.77          |
| 2                      | 21                 | 18.42         |
| 3                      | 6                  | 5.26          |
| 4                      | 9                  | 7.89          |
| 5                      | 14                 | 12.28         |
| 6                      | 6                  | 5.26          |
| 7                      | 2                  | 1.75          |
| 8                      | 7                  | 6.14          |
| 10                     | 8                  | 7.02          |
| 12                     | 4                  | 3.51          |
| 14                     | 3                  | 2.63          |
| 15                     | 3                  | 2.63          |
| 16                     | 2                  | 1.75          |
| 18                     | 1                  | 0.88          |
| 19                     | 1                  | 0.88          |
| 20                     | 7                  | 6.14          |
| 30                     | 2                  | 1.75          |
| 35                     | 1                  | 0.88          |
| 37                     | 1                  | 0.88          |
| 40                     | 4                  | 3.51          |
| 44                     | 1                  | 0.88          |
| 46                     | 1                  | 0.88          |
| <b>Total</b>           | <b>114</b>         | <b>100.00</b> |

Table 3.3 reveals that 314 students claimed that they have working experience in a paid job which was not related to their study background. It is noticeable from this table that this number was triple in comparison with the group

of students who have a paid job related to their study background, which are only 114.

Furthermore, the table reveals that more than 99% of international students were working between 1 and 20 hours per week. Interestingly, 10 and 20 hours per week were the most common number of the students' working hours at 18.47% and 12.42%, respectively. In addition, only 3 students (0.96%) worked more than 20 hours per week for a paid job that was not relevant to their study field.

Table 3.3. International students' working hours per week for paid work in a sector of employment not directly related to field of study

| <b>Working hours per week</b> | <b>Number of students</b> | <b>% of total</b> |
|-------------------------------|---------------------------|-------------------|
| 1                             | 13                        | 4.14              |
| 2                             | 15                        | 4.78              |
| 3                             | 16                        | 5.10              |
| 4                             | 23                        | 7.32              |
| 5                             | 28                        | 8.92              |
| 6                             | 18                        | 5.73              |
| 7                             | 8                         | 2.55              |
| 8                             | 24                        | 7.64              |
| 9                             | 4                         | 1.27              |
| 10                            | 58                        | 18.47             |
| 11                            | 1                         | 0.32              |
| 12                            | 16                        | 5.10              |
| 13                            | 3                         | 0.96              |
| 14                            | 4                         | 1.27              |
| 15                            | 27                        | 8.60              |
| 16                            | 5                         | 1.59              |
| 17                            | 1                         | 0.32              |
| 18                            | 5                         | 1.59              |
| 19                            | 3                         | 0.96              |
| 20                            | 39                        | 12.42             |
| 25                            | 1                         | 0.32              |
| 40                            | 2                         | 0.64              |
| <b>Total</b>                  | <b>314</b>                | <b>100.00</b>     |

### 3.3.5.1.1 Working hours for paid employment based on gender

The gender perspective is one of the most important factors that should be taken into consideration in every single epidemiological study. This section explores the different working experiences between males and female considering students' working hours, sector of employment and rate of payment.

Table 3.4. International students' working hours for paid jobs per week based on gender in a sector of employment directly related to field of study

| Working hours                  | Female (n) | % of total | Male (n) | % of total | Female Hours* | % of total | Male Hours* | % of total |
|--------------------------------|------------|------------|----------|------------|---------------|------------|-------------|------------|
| 1                              | 5          | 10.2       | 4        | 6.25       | 5             | 1.08       | 4           | 0.64       |
| 2                              | 9          | 18.4       | 12       | 18.7       | 18            | 3.88       | 24          | 3.85       |
| 3                              | 3          | 6.12       | 3        | 4.7        | 9             | 1.94       | 9           | 1.44       |
| 4                              | 1          | 2.04       | 8        | 12.5       | 4             | 0.86       | 32          | 5.14       |
| 5                              | 8          | 16.33      | 6        | 9.38       | 40            | 8.62       | 30          | 4.82       |
| 6                              | 4          | 8.16       | 2        | 3.13       | 24            | 5.17       | 12          | 1.93       |
| 7                              | 0          | 0.00       | 2        | 3.13       | 0             | 0.00       | 14          | 2.25       |
| 8                              | 3          | 6.12       | 4        | 6.25       | 24            | 5.17       | 32          | 5.14       |
| 10                             | 1          | 2.04       | 7        | 10.9       | 10            | 2.16       | 70          | 11.2       |
| 12                             | 2          | 4.08       | 2        | 3.13       | 24            | 5.17       | 24          | 3.85       |
| 14                             | 3          | 6.12       | 0        | 0.00       | 42            | 9.05       | 0           | 0.00       |
| 15                             | 1          | 2.04       | 2        | 3.13       | 15            | 3.23       | 30          | 4.82       |
| 16                             | 0          | 0.00       | 2        | 3.13       | 0             | 0.00       | 32          | 5.14       |
| 18                             | 1          | 2.04       | 0        | 0.00       | 18            | 3.88       | 0           | 0.00       |
| 19                             | 1          | 2.04       | 0        | 0.00       | 19            | 4.09       | 0           | 0.00       |
| 20                             | 3          | 6.12       | 4        | 6.25       | 60            | 12.9       | 80          | 12.8       |
| 30                             | 0          | 0.00       | 2        | 3.13       | 0             | 0.00       | 60          | 9.63       |
| 35                             | 1          | 2.04       | 0        | 0.00       | 35            | 7.54       | 0           | 0.00       |
| 37                             | 1          | 2.04       | 0        | 0.00       | 37            | 7.97       | 0           | 0.00       |
| 40                             | 2          | 4.08       | 2        | 3.13       | 80            | 17.2       | 80          | 12.8       |
| 44                             | 0          | 0.00       | 1        | 1.56       | 0             | 0.00       | 44          | 7.06       |
| 46                             | 0          | 0.00       | 1        | 1.56       | 0             | 0.00       | 46          | 7.38       |
| Total                          | 49         | 100        | 64       | 100        | 464           | 100        | 623         | 100        |
| <b>Average working hours**</b> |            |            |          |            | <b>9.47</b>   |            | <b>9.73</b> |            |

\* = Students hours (number of students multiplied by working hours)

\*\*= Total of students hours divided by total of students

The term *students hours* (female hours or male hours) is used to describe the total amount of hours that all students had allocated to their jobs for each category. This number was also used to calculate the average working hours per week that male and female students undertake.

Table 3.4 provides information that overall the number of male students (64) involved in paid jobs directly related to their study background was more than female students (49). Unfortunately, one student did not mention his/her gender in this research. Hence, this student was not included in Table 3.5.

The comparison of the average working hours per week for paid jobs in the sector of employment related to field of study between female and male shows a slightly different numbers of working hours, i.e. 9.47 hours and 9.73 hours, but this is not statistically significant ( $p>0.05$ , two tailed test).

Furthermore, Table 3.4 shows the different distributions of those two groups in terms of the number of hours per week. The female group worked mainly in 2, 5 and 1 hours per week (18.37%, 16.33% and 10.20 %, respectively), while the male group worked mainly in 2, 4 and 10 hours per week (18.75%, 12.50% and 10.94%, respectively).

Next, Table 3.5 provides information on international students' involved in paid jobs which not directly related to their study background. In the sector of paid jobs not related to students' study background, the male group reported slightly higher average working hours per week than the female group (10.2% and 9.76%, respectively) even though the number of females involved in this type of job is relatively bigger than males. Furthermore, 160 females reported that they have experiences in this sector compared to male students which was only 153.

The tables indicate that male students spent more time in longer working hours (20 hours or more) than female. No female students spent more than 40 hours a week in paid jobs directly relevant to their study background. By contrast, two male students claimed that they have devoted more than 40 hours a week in this area.

Table 3.5. International students' working hours for paid jobs per week based on gender in a sector of employment not directly related to field of study

| Working hours                  | Female (n) | % of total | Male (n) | % of total | Female Hours* | % of total | Male Hours* | % of total |
|--------------------------------|------------|------------|----------|------------|---------------|------------|-------------|------------|
| 1                              | 6          | 3.75       | 6        | 3.92       | 6             | 0.38       | 6           | 0.38       |
| 2                              | 10         | 6.25       | 5        | 3.27       | 20            | 1.28       | 10          | 0.64       |
| 3                              | 8          | 5.00       | 8        | 5.23       | 24            | 1.54       | 24          | 1.53       |
| 4                              | 12         | 7.50       | 11       | 7.19       | 48            | 3.07       | 44          | 2.81       |
| 5                              | 13         | 8.13       | 15       | 9.80       | 65            | 4.16       | 75          | 4.80       |
| 6                              | 12         | 7.50       | 6        | 3.92       | 72            | 4.61       | 36          | 2.30       |
| 7                              | 5          | 3.13       | 3        | 1.96       | 35            | 2.24       | 21          | 1.34       |
| 8                              | 13         | 8.13       | 11       | 7.19       | 104           | 6.66       | 88          | 5.63       |
| 9                              | 2          | 1.25       | 2        | 1.31       | 18            | 1.15       | 18          | 1.15       |
| 10                             | 24         | 15.0       | 34       | 22.2       | 240           | 15.4       | 340         | 21.7       |
| 11                             | 1          | 0.63       | 0        | 0.00       | 11            | 0.70       | 0           | 0.00       |
| 12                             | 7          | 4.38       | 9        | 5.88       | 84            | 5.38       | 108         | 6.91       |
| 13                             | 2          | 1.25       | 1        | 0.65       | 26            | 1.66       | 13          | 0.83       |
| 14                             | 3          | 1.88       | 1        | 0.65       | 42            | 2.69       | 14          | 0.90       |
| 15                             | 17         | 10.6       | 10       | 6.54       | 255           | 16.3       | 150         | 9.59       |
| 16                             | 2          | 1.25       | 3        | 1.96       | 32            | 2.05       | 48          | 3.07       |
| 17                             | 1          | 0.63       | 0        | 0.00       | 17            | 1.09       | 0           | 0.00       |
| 18                             | 0          | 0.00       | 5        | 3.27       | 0             | 0.00       | 90          | 5.75       |
| 19                             | 2          | 1.25       | 1        | 0.65       | 38            | 2.43       | 19          | 1.21       |
| 20                             | 18         | 11.3       | 21       | 13.7       | 360           | 23.1       | 420         | 26.8       |
| 25                             | 1          | 0.63       | 0        | 0.00       | 25            | 1.60       | 0           | 0.00       |
| 40                             | 1          | 0.63       | 1        | 0.65       | 40            | 2.56       | 40          | 2.60       |
| 275                            | 160        | 100        | 153      | 100        | 1562          | 100        | 1564        | 100        |
| <b>Average working hours**</b> |            |            |          |            | <b>9.76</b>   |            | <b>10.2</b> |            |

\* = Students hours (number of students multiplied by working hours)

\*\*= Total of students hours divided by total of students



3.3.5.1.2 Working hours for employment: a voluntary job

Table 3.6 provides information about the students' employment directly relevant to their field of study without payment (voluntary) with the number of hours together with percentages. It is clear from the table that about 23% of international students allocated 2 hours every week to a voluntary job.

Table 3.6 International students' working hours per week for voluntary jobs in the sector of employment directly related to field of study

| Working hours per week | Number of students | % of total |
|------------------------|--------------------|------------|
| 1                      | 14                 | 11.1       |
| 2                      | 29                 | 23.0       |
| 3                      | 7                  | 5.56       |
| 4                      | 11                 | 8.73       |
| 5                      | 10                 | 7.94       |
| 6                      | 8                  | 6.35       |
| 7                      | 2                  | 1.59       |
| 8                      | 7                  | 5.56       |
| 10                     | 5                  | 3.97       |
| 12                     | 3                  | 2.38       |
| 13                     | 1                  | 0.79       |
| 14                     | 1                  | 0.79       |
| 15                     | 2                  | 1.59       |
| 16                     | 4                  | 3.17       |
| 17                     | 1                  | 0.79       |
| 18                     | 1                  | 0.79       |
| 20                     | 9                  | 7.14       |
| 22                     | 1                  | 0.79       |
| 24                     | 2                  | 1.59       |
| 26                     | 1                  | 0.79       |
| 40                     | 3                  | 2.38       |
| 45                     | 1                  | 0.79       |
| 48                     | 1                  | 0.79       |
| 50                     | 1                  | 0.79       |
| 60                     | 1                  | 0.79       |
| <b>Total</b>           | <b>126</b>         | <b>100</b> |

The study found that several students reported 40 hours or more per week, which means that they work full time as voluntary workers. Unfortunately, using IBS 2013 data, there was no information provided that can be used to investigate the time when this group of students was working, that is, during the academic period or academic break/vacation. This is similar to the previous table that most of international students spent approximately 2 hours every week for a voluntary job which related to their study background and only about 9% of them worked unpaid more than 20 hours a week.

Table 3.7. International students' working hours per week for voluntary jobs in a sector of employment not directly related to field of study

| <b>Working hours per week</b> | <b>Number of students</b> | <b>% of total</b> |
|-------------------------------|---------------------------|-------------------|
| 1                             | 16                        | 15.7              |
| 2                             | 27                        | 26.5              |
| 3                             | 14                        | 13.7              |
| 4                             | 11                        | 10.8              |
| 5                             | 15                        | 14.7              |
| 6                             | 4                         | 3.92              |
| 7                             | 1                         | 0.98              |
| 8                             | 2                         | 1.96              |
| 10                            | 5                         | 4.90              |
| 12                            | 2                         | 1.96              |
| 15                            | 2                         | 1.96              |
| 22                            | 1                         | 0.98              |
| 28                            | 1                         | 0.98              |
| 37                            | 1                         | 0.98              |
| <b>Total</b>                  | <b>102</b>                | <b>100</b>        |

The last category focused on international students' employment that was unrelated to their background of study. Table 3.7 summaries this information, indicating that 102 students expressed their participation in this sector. The table provides information that more than 97% of international students allocated their

time for voluntary jobs which not related to field of study less than 20 hours per week. Only 3 students worked more than 20 hours per week.

### 3.3.5.1.3 Working hours for voluntary jobs based on gender

Table 3.8 reveals that overall the male group allocated more of their time to unpaid jobs per week than the female group.

Table 3.8. International students' working hours for voluntary jobs per week based on gender in the sector of employment directly related to field of study

| Working hours                  | Female (n) | % of total | Male (n) | % of total | Female Hours* | % of total | Male Hours* | % of total |
|--------------------------------|------------|------------|----------|------------|---------------|------------|-------------|------------|
| 1                              | 4          | 6.06       | 9        | 15.3       | 4             | 0.70       | 9           | 1.57       |
| 2                              | 17         | 25.8       | 12       | 20.3       | 34            | 5.93       | 24          | 4.20       |
| 3                              | 5          | 7.58       | 2        | 3.39       | 15            | 2.62       | 6           | 1.05       |
| 4                              | 5          | 7.58       | 6        | 10.2       | 20            | 3.49       | 24          | 4.20       |
| 5                              | 6          | 9.09       | 4        | 6.78       | 30            | 5.24       | 20          | 3.50       |
| 6                              | 5          | 7.58       | 3        | 5.08       | 30            | 5.24       | 18          | 3.15       |
| 7                              | 1          | 1.52       | 1        | 1.69       | 7             | 1.22       | 7           | 1.22       |
| 8                              | 4          | 6.06       | 3        | 5.08       | 32            | 5.58       | 24          | 4.20       |
| 10                             | 2          | 3.03       | 3        | 5.08       | 20            | 3.49       | 30          | 5.24       |
| 12                             | 3          | 4.55       | 0        | 0.00       | 36            | 6.28       | 0           | 0.00       |
| 13                             | 1          | 1.52       | 0        | 0.00       | 13            | 2.27       | 0           | 0.00       |
| 14                             | 1          | 1.52       | 0        | 0.00       | 14            | 2.44       | 0           | 0.00       |
| 15                             | 1          | 1.52       | 1        | 1.69       | 15            | 2.62       | 15          | 2.62       |
| 16                             | 0          | 0.00       | 4        | 6.78       | 0             | 0.00       | 64          | 11.2       |
| 17                             | 1          | 1.52       | 0        | 0.00       | 17            | 2.97       | 0           | 0.00       |
| 18                             | 1          | 1.52       | 0        | 0.00       | 18            | 3.14       | 0           | 0.00       |
| 20                             | 4          | 6.06       | 5        | 8.47       | 80            | 13.9       | 100         | 17.5       |
| 22                             | 0          | 0.00       | 1        | 1.69       | 0             | 0.00       | 22          | 3.85       |
| 24                             | 1          | 1.52       | 1        | 1.69       | 24            | 4.19       | 24          | 4.20       |
| 26                             | 1          | 1.52       | 0        | 0.00       | 26            | 4.54       | 0           | 0.00       |
| 40                             | 1          | 1.52       | 2        | 3.39       | 40            | 6.98       | 80          | 13.9       |
| 45                             | 0          | 0.00       | 1        | 1.69       | 0             | 0.00       | 45          | 7.87       |
| 48                             | 1          | 1.52       | 0        | 0.00       | 48            | 8.38       | 0           | 0.00       |
| 50                             | 1          | 1.52       | 0        | 0.00       | 50            | 8.73       | 0           | 0.00       |
| 60                             | 0          | 0.00       | 1        | 1.69       | 0             | 0.00       | 60          | 10.5       |
| Total                          | 66         | 100        | 59       | 100        | 573           | 100        | 572         | 100        |
| <b>Average working hours**</b> |            |            |          |            | <b>8.68</b>   |            | <b>9.69</b> |            |

\* = Students hours (number of students multiplied by working hours)

\*\*= Total of students hours divided by total of students

On average, males spent 9.69 hours per week in voluntary jobs which were directly related to their study background compared to females who only devoted 8.68 hours of their time to the same type and sector of job. Generally, female students' were relatively more involved than male students in voluntary jobs.

Table 3.9 shows the number of students who were involved in voluntary jobs unrelated to their study background. From more than 1600 survey participants, only 64 female students and 37 male students claimed that they took part in this job sector. The table provides information that generally female students were involved more in voluntary jobs than male students. On average, female students spent 4.50 hours per week on unpaid jobs not directly related to their study field compared to males spending only 4.86 hours per week.

Table 3.9. International students' working hours for voluntary jobs per week based on gender in the sector of employment not directly related to field of study

| Working hours                  | Female (n) | % of total | Male (n) | % of total | Female Hours* | % of total | Male Hours* | % of total |
|--------------------------------|------------|------------|----------|------------|---------------|------------|-------------|------------|
| 1                              | 8          | 12.5       | 7        | 18.9       | 8             | 2.78       | 7           | 3.89       |
| 2                              | 20         | 31.2       | 7        | 18.9       | 40            | 13.9       | 14          | 7.78       |
| 3                              | 12         | 18.7       | 2        | 5.41       | 36            | 12.5       | 6           | 3.33       |
| 4                              | 5          | 7.81       | 6        | 16.2       | 20            | 6.94       | 24          | 13.3       |
| 5                              | 10         | 15.6       | 5        | 13.5       | 50            | 17.4       | 25          | 13.9       |
| 6                              | 1          | 1.56       | 3        | 8.11       | 6             | 2.08       | 18          | 10.0       |
| 7                              | 1          | 1.56       | 0        | 0.00       | 7             | 2.43       | 0           | 0.00       |
| 8                              | 2          | 3.13       | 0        | 0.00       | 16            | 5.56       | 0           | 0.00       |
| 10                             | 1          | 1.56       | 4        | 10.8       | 10            | 3.47       | 40          | 22.2       |
| 12                             | 0          | 0.00       | 2        | 5.41       | 0             | 0.00       | 24          | 13.3       |
| 15                             | 2          | 3.13       | 0        | 0.00       | 30            | 10.4       | 0           | 0.00       |
| 22                             | 0          | 0.00       | 1        | 2.70       | 0             | 0.00       | 22          | 12.2       |
| 28                             | 1          | 1.56       | 0        | 0.00       | 28            | 9.72       | 0           | 0.00       |
| 37                             | 1          | 1.56       | 0        | 0.00       | 37            | 12.8       | 0           | 0.00       |
|                                | 64         | 100        | 37       | 100        | 288           | 100        | 180         | 100        |
| <b>Average working hours**</b> |            |            |          |            | <b>4.50</b>   |            | <b>4.86</b> |            |

\* = Students hours (number of students multiplied by working hours)

\*\*= Total of students hours divided by total of students

### 3.3.5.2 Students' rate of payment

Table 3.10 provides information related to the rate of payment that international students have from the various jobs and sectors of industry.

Table 3.10. International students' rate of payment 2013

| Rates per hour (\$) | Number of students | % of total |
|---------------------|--------------------|------------|
| 2                   | 1                  | 0.31       |
| 5                   | 4                  | 1.25       |
| 6                   | 1                  | 0.31       |
| 7                   | 1                  | 0.31       |
| 8                   | 8                  | 2.49       |
| 9                   | 10                 | 3.12       |
| 10                  | 47                 | 14.6       |
| 11                  | 10                 | 3.12       |
| 12                  | 26                 | 8.10       |
| 13                  | 15                 | 4.67       |
| 14                  | 7                  | 2.18       |
| 15                  | 28                 | 8.72       |
| 16                  | 7                  | 2.18       |
| 17                  | 11                 | 3.43       |
| 18                  | 13                 | 4.05       |
| 19                  | 6                  | 1.87       |
| 20                  | 34                 | 10.6       |
| 21                  | 4                  | 1.25       |
| 22                  | 10                 | 3.12       |
| 23                  | 4                  | 1.25       |
| 24                  | 2                  | 0.62       |
| 25                  | 18                 | 5.61       |
| 26                  | 1                  | 0.31       |
| 27                  | 1                  | 0.31       |
| 28                  | 2                  | 0.62       |
| 29                  | 1                  | 0.31       |
| 30                  | 8                  | 2.49       |
| 34                  | 4                  | 1.25       |
| 35                  | 7                  | 2.18       |
| 36                  | 1                  | 0.31       |
| 37                  | 3                  | 0.93       |
| 39                  | 5                  | 1.56       |
| 40                  | 14                 | 4.36       |
| 44                  | 1                  | 0.31       |
| 45                  | 6                  | 1.87       |
| <b>Total</b>        | <b>321</b>         | <b>100</b> |

It can be seen from the table that from 321 respondents, 165 students (51.4%) had been paid less than the National Minimum Wage Order 2013, which was \$16.4 per hour (Fair Work Commission, 2014). In other words, more than 50% of them were underpaid in the workplace.

Turning to the gender perspective, Table 3.11 provides information regarding the rate of payments of international students for paid jobs based on gender. On average, it seems there was no problem regarding rates of payment for male and females: both of the groups received payment more than the national minimum wage order of 2013.

Male students received a somewhat more payment compared to their counterpart female students, where male students in average earned \$19.8 per hour and female students only \$17.5 per hour. The average of rates of payment had been influenced by some students who earn high rates of payment. As a result the average of rates of payment for both female and male students was above the legal minima (\$16.4 per hour).

Nevertheless, when one takes a look in more detail at the distribution of the rates of payment it can be seen from the table that among 165 female students there were 93 (56.4%) who received payment less than the national minimum wage (\$16.4) per hour compared to male students; only 72 students from a total of 156 (46.2%) male students were underpaid.

Table 3.11. International students' rates of payment in Australian dollar based on gender

| Rates per hour (\$)                  | Female (n) | % of total | Male (n) | % of total | Female \$*  | % of total | Male \$*    | % of total |
|--------------------------------------|------------|------------|----------|------------|-------------|------------|-------------|------------|
| 2                                    | 0          | 0.00       | 1        | 0.64       | 0           | 0.00       | 2           | 0.06       |
| 5                                    | 1          | 0.61       | 3        | 1.92       | 5           | 0.17       | 15          | 0.48       |
| 6                                    | 1          | 0.61       | 0        | 0.00       | 6           | 0.21       | 0           | 0.00       |
| 7                                    | 0          | 0.00       | 1        | 0.64       | 0           | 0.00       | 7           | 0.23       |
| 8                                    | 5          | 3.03       | 3        | 1.92       | 40          | 1.38       | 24          | 0.78       |
| 9                                    | 6          | 3.64       | 4        | 2.56       | 54          | 1.87       | 36          | 1.16       |
| 10                                   | 28         | 16.9       | 19       | 12.2       | 280         | 9.68       | 190         | 6.14       |
| 11                                   | 4          | 2.42       | 6        | 3.85       | 44          | 1.52       | 66          | 2.13       |
| 12                                   | 15         | 9.09       | 11       | 7.05       | 180         | 6.22       | 132         | 4.26       |
| 13                                   | 11         | 6.67       | 4        | 2.56       | 143         | 4.94       | 52          | 1.68       |
| 14                                   | 4          | 2.42       | 3        | 1.92       | 56          | 1.94       | 42          | 1.36       |
| 15                                   | 14         | 8.48       | 14       | 8.97       | 210         | 7.26       | 210         | 6.78       |
| 16                                   | 4          | 2.42       | 3        | 1.92       | 64          | 2.21       | 48          | 1.55       |
| 17                                   | 5          | 3.03       | 6        | 3.85       | 85          | 2.94       | 102         | 3.29       |
| 18                                   | 9          | 5.45       | 4        | 2.56       | 162         | 5.60       | 72          | 2.33       |
| 19                                   | 3          | 1.82       | 3        | 1.92       | 57          | 1.97       | 57          | 1.84       |
| 20                                   | 16         | 9.70       | 18       | 11.5       | 320         | 11.1       | 360         | 11.6       |
| 21                                   | 2          | 1.21       | 2        | 1.28       | 42          | 1.45       | 42          | 1.36       |
| 22                                   | 6          | 3.64       | 4        | 2.56       | 132         | 4.56       | 88          | 2.84       |
| 23                                   | 2          | 1.21       | 2        | 1.28       | 46          | 1.59       | 46          | 1.49       |
| 24                                   | 0          | 0.00       | 2        | 1.28       | 0           | 0.00       | 48          | 1.55       |
| 25                                   | 7          | 4.24       | 11       | 7.05       | 175         | 6.05       | 275         | 8.88       |
| 26                                   | 0          | 0.00       | 1        | 0.64       | 0           | 0.00       | 26          | 0.84       |
| 27                                   | 0          | 0.00       | 1        | 0.64       | 0           | 0.00       | 27          | 0.87       |
| 28                                   | 2          | 1.21       | 0        | 0.00       | 56          | 1.94       | 0           | 0.00       |
| 29                                   | 0          | 0.00       | 1        | 0.64       | 0           | 0.00       | 29          | 0.94       |
| 30                                   | 4          | 2.42       | 4        | 2.56       | 120         | 4.15       | 120         | 3.88       |
| 34                                   | 3          | 1.82       | 1        | 0.64       | 102         | 3.52       | 34          | 1.10       |
| 35                                   | 3          | 1.82       | 4        | 2.56       | 105         | 3.63       | 140         | 4.52       |
| 36                                   | 0          | 0.00       | 1        | 0.64       | 0           | 0.00       | 36          | 1.16       |
| 37                                   | 1          | 0.61       | 2        | 1.28       | 37          | 1.28       | 74          | 2.39       |
| 39                                   | 2          | 1.21       | 3        | 1.92       | 78          | 2.70       | 117         | 3.78       |
| 40                                   | 4          | 2.42       | 10       | 6.41       | 160         | 5.53       | 400         | 12.9       |
| 44                                   | 0          | 0.00       | 1        | 0.64       | 0           | 0.00       | 44          | 1.42       |
| 45                                   | 3          | 1.82       | 3        | 1.92       | 135         | 4.66       | 135         | 4.36       |
|                                      | 165        | 100        | 156      | 100        | 2894        | 100        | 3096        | 100        |
| <b>Average of rates of payment**</b> |            |            |          |            | <b>17.5</b> |            | <b>19.8</b> |            |

\* = Students rates (number of students multiplied by rates per hours)

\*\*= Total of students rates divided by total of students

The table highlights the different distribution of rates of payment between male and female young workers and suggests that generally female students were more often underpaid than male students.

### **3.3.6 Summary of study findings**

With respect to the Research Question 3, the following findings are highlighted.

#### **3.3.6.1 Working hours**

More than 90% of international students reported working less than 20 hours a week, which implies that these students do not exceed their visa

#### **3.3.6.2 Rates of payment**

The 2013 ISB survey data indicate that 51.4% of international students are being under paid in the Australian workplace, using the National Minimum Wage Order 2013 (\$16.23/hour) as the benchmark. This study also indicated that male students on average earn more than female students.

#### **3.3.6.3 Type of employment**

In general, male students were more likely to be in paid jobs compared to female students. In contrast, female students were more often involved in voluntary jobs.



### **3.4 Discussion**

The statistical review of the workers' compensation dataset 2004-2013 explored the profile of young workers' injuries. Results from this review indicated that the number of young workers' injury claims in SA was generally declining. This is consistent with the national statistics for period 2000 to 2006 (Jahan et al., 2010; Australia Safety and Compensation Council, 2009). However, when it comes to the proportion of serious injury claims out of all claims, particularly for selected variables for young migrant workers, the trends tended to increase over the ten-year period.

Furthermore, this study found that being a non-Australian born, non-English speaking background (NESB), older young worker (20-24 years old), female, new worker, small/medium company worker, night shift worker, outdoor worker or non-self-insured company worker become important predictive factors for serious injury claims among young workers. These characteristics are commonly exhibited by international students (SafeWork SA, 2013) and mean that international students are at a greater risk of experiencing serious injury in the workplace.

This was expected because some literature suggested that international students as young migrant workers are facing difficulties with cultural adjustment and language barriers (Lawson 2012; Nyland 2009). Moreover, they tended to undertake employment in poor working conditions, lacked an understanding of their legal rights and in many cases were being exploited in the workplace (Nyland, 2009; Anderson, 2011b). These are also contributing factors for this sub-group to experience accident or serious injury.

Concerning exploitation in the workplace related to international students' working hours, many publications related to international students' working hours link negative findings to the breach of visa entitlements. Recent research reveals that many international students are involved in casual or part-time work with remarkable number of working hours, and that they do so due to numerous reasons (McNeilage, 2015; Watson, 2014).

However, the results from ISB survey 2013 data analysis revealed that only about 9% of them were working more than 20 hours per week in paid work and this number is even smaller when it comes to unpaid (voluntary) work. Even though this subgroup of students has the potential to breach their visa entitlement, they tend not to. The misconception of working too many hours may arise from statistics relating to international students who are in higher research degree programs (master or PhD by research) who hold student visa numbers 573, 574, and 576, all of which allow students to work unlimited hours once their program commences.

With respect to the exploitation among international students regarding their rates of payment, recently, a substantial body of publications have revealed that international students are being exploited and underpaid in the workplace. Chau (2015) and Parkin (2008) reported that many foreign students were underpaid, working for only \$8 per hour in Melbourne. Similar findings have been reported by Howe (2013) and McNeilage (2015) that some international students in Sydney who work in cleaning and hospitality industries were being seriously underpaid by their employer. In Adelaide, many overseas students were being paid below the minimum wage, working for only \$6 per hour (Watson, 2014).

The findings of ISB 2013 survey analysis provide evidence that strengthens those reports. Using the National Minimum Wage Order 2013 as a standard to be compared with the ISB data 2013, more than 50% of international students claimed that they were being paid below the minimum wage. Thus, this study supports most of the publications which revealed that international students were being exploited in the workplace (Parkin, 2008; Howe, 2013; Watson, 2014; McNeilage, 2015; Chau, 2015).

Finally, this study found that male students were more involved in paid employment than female students, and that there was a gap between male and female overseas students concerning the average amount of their income. This finding is consistent with the Workplace Gender Equality Agency (2015), who reported that from 2013 to 2014 in general female workers earn statistically less than male employees.

### **3.5 Strengths and limitations**

#### **3.5.1 Statistical review of workers' compensation data**

This study has several strengths to be highlighted. This is the first study in Australia to explore the profile of young migrant workers using the workers' compensation dataset. The study produces a ten-year time trend with a large amount of data from 2004 to 2013 with 49,795 cases in total. Furthermore, the data has been validated in consultation with SafeWork SA.

However, this study also has several limitations. The dataset did not provide any specific code for international students, so a proxy was used. Moreover, the dataset only contained compensation claims from the formal sector of industry

without capturing casual or illegal work where many international students are assumed to be involved.

### **3.5.2 Statistical review of ISB survey 2013 data**

The major strength of this study is that this is the first research to analyse a large group of international students' working hours together with their rates of payment. There were more than 1600 students that participated in this survey. The survey was offered to all international students within the University, since the survey information and its invitation were distributed by the International Students Centre (ISC). In addition, the results of this research are reliable, since it was administered by an independent research company without any intervention from the University.

Unfortunately, the survey was not specifically designed for international students' working experiences; instead it was designed to explore international students' satisfaction. Thus, it included only limited data related to international students' working experiences, which in turn meant that it could not provide a statistical analysis to depict the contributing factors that potentially related to international students' injury experiences and work-study interference.

## **3.6 Conclusions**

The reviews provide statistical trends and numbers as evidence regarding international students' vulnerabilities in the Australian workplace. The findings from analysis of workers' compensation dataset revealed that the proportion of serious injury claims out of all claims among young workers tended to incline from 2004 to 2013. Furthermore, young workers who are non-Australian born and NESB, as are most international students, were in greater risk of experiencing

serious injury in the Australian workplace. Getting more focused on international students, the results from the ISB survey 2013 supported the argument that generally international students were being underpaid in the workplace; we know from other research that underpayment is a signal that other vulnerabilities are likely to accompany this exploitation.

This study provides valuable data for relevant stakeholders and policy makers to be more aware of young migrant workers' problems and to develop strategies locally or nationally to improve occupational health and safety among young migrant workers, particularly for susceptible subgroup such as international students who represent a substantial fraction of young workers in Australia.

Furthermore, these statistical reviews signal the importance of conducting empirical research focusing on international students' working experiences, injury experiences and work-study interference which is presented in the next chapter.

# Chapter 4

## INTERNATIONAL STUDENT ONLINE SURVEY

## **CHAPTER 4. INTERNATIONAL STUDENT ONLINE SURVEY**

*Exploring international students' working experiences, injury experiences and work-study interference*

### **4.1 Introduction**

International students provide important contributions not only to university life in Australia, but also to the Australian economy. Like most Australian students, most international students are working while studying.

This chapter profiles the characteristics of international student employees by demographics, academic backgrounds, working experiences, OHS training experiences, injury experiences, work-study interference and their perception of the role of the University in OHS education. In addition, bivariate and multivariate statistical analyses are presented, identifying the risk factors and important predictive factors for adverse OHS outcomes and work-study interference. Data relate to those students surveyed at the University of Adelaide.

### **4.2 Study rationale and research questions**

International students as young migrant workers frequently undertake jobs in the workplace that rank low in terms of employment status and skills (Anderson et al., 2011b; Ziguras and Law, 2006). Coupled with this, they are also likely to be more susceptible to being exploited because in some cases they are often in desperate need of jobs for additional income to support the financial burden of being an overseas student (Anderson et al., 2011b; Nyland et al., 2009). Importantly, the literature also suggests that they may have very poor conditions of employment that potentially lead them to experience illness and injury (Anderson et al., 2011b).

What's the evidence for poor conditions and outcomes for University of Adelaide students? If these students are in hazardous work, it is important to explore working experiences and to investigate factors that are associated with injury experiences. From a University perspective, it is also important to explore the impacts of having paid employment on international students' academic performance, as the main reason for international students coming to Australia is for study and to obtain a better education.

Many studies have assessed migrant workers' problems (Ahonen et al., 2007; Loh and Richardson, 2004). Similarly, a lot of research has explored international students' academic performance (Lebcir et al., 2008; Floyd, 2015). However, there is a scarcity of research that pays attention to the impacts of paid employment on the academic performance of international students. This research fills that gap, and is also the first study that explores information related to international students' injury experiences in the Australian workplace.

Accordingly, the research questions relating to this Chapter (Study 2) are:

*RQ4:* What are international students' working status, sectors of employment, OHS training experiences, injury experiences and work-study interference?

*RQ5:* What factors are associated with international students' injury experiences and work-study interference?



### **4.3 Methods**

To obtain views and understandings from different perspectives regarding international students' working experiences and the impact of paid employment on international students' academic performance and injury, the researcher conducted an online survey at the University of Adelaide. The survey used SurveyMonkey.com software and was designed and disseminated in collaboration with the International Students Centre (ISC) of the University.

Similar to the ISB, the format of the survey was mainly closed questions, but included some open-ended questions that required comments. To complete the survey, students needed about 15 to 20 minutes to answer the 49 questions. All students who had completed the survey had a chance to win one of five \$100 Woolworths vouchers.

#### **4.3.1 Study population and sample**

After a pilot with a number of international students and ethics approval (Appendix 3), a survey invitation with its online link was distributed by the ISC to all international students. The survey invitations were sent in two waves. In the first wave, the invitation was sent on Thursday 7 August 2014 at 12:08 PM through the international students' email with the subject heading "*Invitation for survey for International Students*" which contained the survey information sheet, the students' consent form and the survey questionnaire. The second wave was sent as a reminder on Monday 1 September 2014 at 1:57 PM for all international students who had not joined the survey at the first invitation.

There were 719 participants who took a part in this survey, generating 466 complete responses. This discrepancy is for two reasons. Firstly, the online survey

allowed participants to skip questions for which they were unwilling to share information (Gingery, 2011).

Secondly, although the online information indicated that the survey was only for those with working experience, international students could participate in the online survey whether they had working experience or not. For participants who lacked working experience it was not possible to complete all the questions. Only those respondents with complete responses were included in the analysis.

With respect to the sampling representativeness, it is not possible to provide the actual number of international students who have working experiences in comparison with all international students. However, when we look at the ratio of male and female who have paid job where male involved more than female (Table 3.4Page 81)compared to the ratio of overall male and female students that is comparable (Table 6.2 Page 223), it is likely that the sample of this study is representative.

#### **4.3.2 Data collection and analysis**

The questionnaire asked participants about their demographic details, experiences of working, OHS training experiences, injury experiences, any ways in which work interferes with study, their perception of their OHS knowledge and confidence, and opinion about the role of the university in OHS awareness raising and education. The questions were derived from first principles and consultation with ISC, as there is no standardised questionnaire (see Appendices 4-7).

The SurveyMonkey.com data were collected in Excel files, then cleaned and coded before analysis. Note that there were some questions that respondents were allowed to skip, and some questions allowed respondents to answer more than one

option. Hence, in some cases of the analysis the figures showed the number of participants less or more than the total of participants (466).

Excel 2010 software was used to produce tables and graphs for the descriptive analysis of international students' backgrounds, working experiences, OHS training, injury experiences, OHS knowledge and confidence and their perception of the role of the university in OHS awareness raising and education. The IBM Statistical Package for the Social Sciences (SPSS) Version 21 was used to quantify the relationship between variables.

Bivariate and multivariate logistic regression analyses were conducted to investigate the association between independent variables and the outcome variables. The following five variables were considered outcome variables:

1. Health and safety issues
  - a. *stress*
  - b. *injury experiences*
2. Work-study interference
  - a. *Tiredness*
  - b. *Timetable clash*
  - c. *Failure to submit assignment on time.*

Twenty independent variables were assessed in association with the outcome variables:

1. Student demographics
  - a. Age
  - b. Gender

- c. Marital status
  - d. Have children
  - e. Have family members in Adelaide
2. Academic backgrounds
- a. Faculty
  - b. Year of study
  - c. Study program
3. Working experiences
- a. Job status
  - b. Number of jobs
  - c. Sector of industry
  - d. Perception of wage fairness
  - e. Rate of pay
  - f. Working hours
  - g. Working conditions
  - h. Job tenure
  - i. Supervision
4. OHS training experiences
- a. Have OHS training
  - b. Assessed on training
  - c. OHS confidence

The Chi-Square test and Odds Ratio (OR) analysis were performed to see the association between variables. Statistical significance was defined as a two-tailed p-value of 0.05 or less. For each outcome variable, the statistically significant

independent variables were included in a multivariate logistic regression model to identify important predictor factors.

## 4.4 Results

### 4.4.1 The characteristics of respondents (univariate descriptive statistics)

The following sections present the characteristics of respondents in the study including demographic profiles, academic backgrounds, working experience, training experiences, and injury experiences.

#### 4.4.1.1 International student demographics

This section provides information on the demographic profile of international student participants in this study relating to age, gender, marital status, having children, family members, and country of origin.

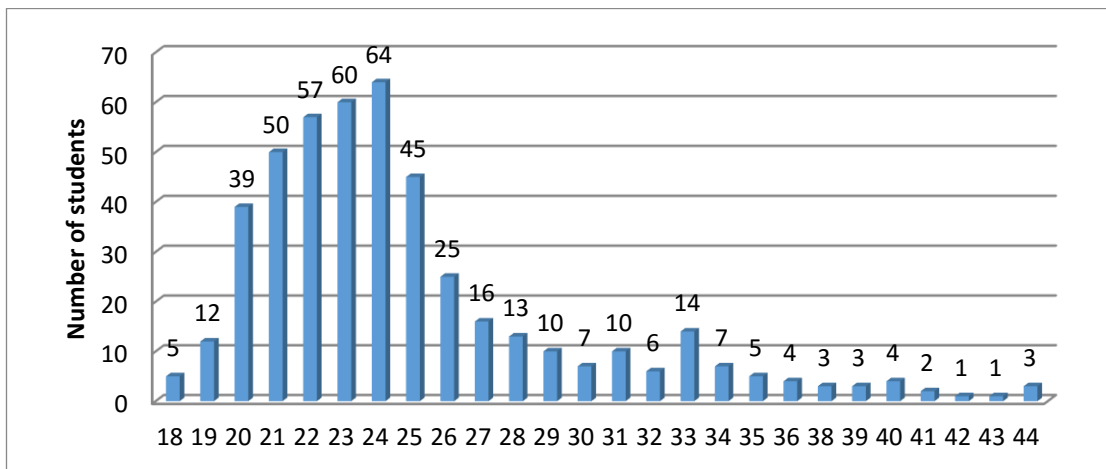


Figure 4.1. The distribution of respondents by age

Figure 4.1 and Figure 4.2 provide information related to international students' distribution based on age and percentage by gender. It can be seen from the figures that most of international students (more than 70% among 466 participants) are in the older group of young workers (20-25 years old). Only about 4% of them are in the younger group of young workers (15-19 years old).

Turning to gender, it can be seen from the pie chart in Figure 4.2 that female students are more often involved in the workplace than male students with 53% and 47%, respectively.

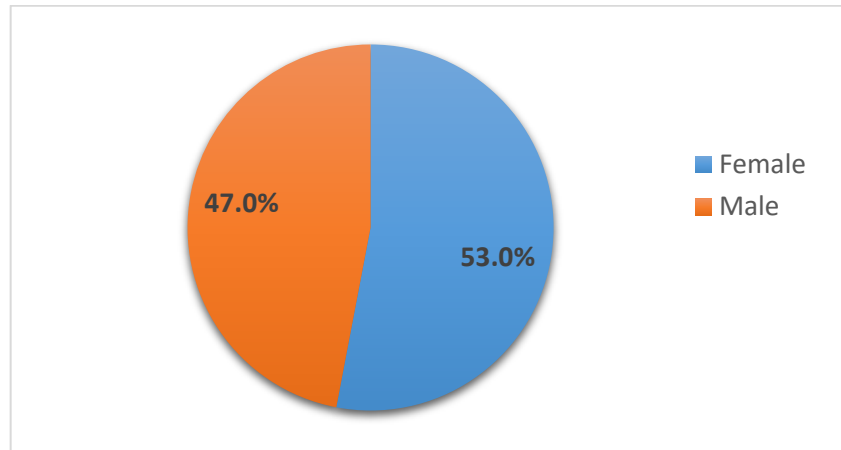


Figure 4.2. The proportion of respondents by gender

Figure 4.3 presents the marital status of international students. The vast majority of international students who have experience working while studying in Australia are single (more than 80%); less than 20% of them are married.

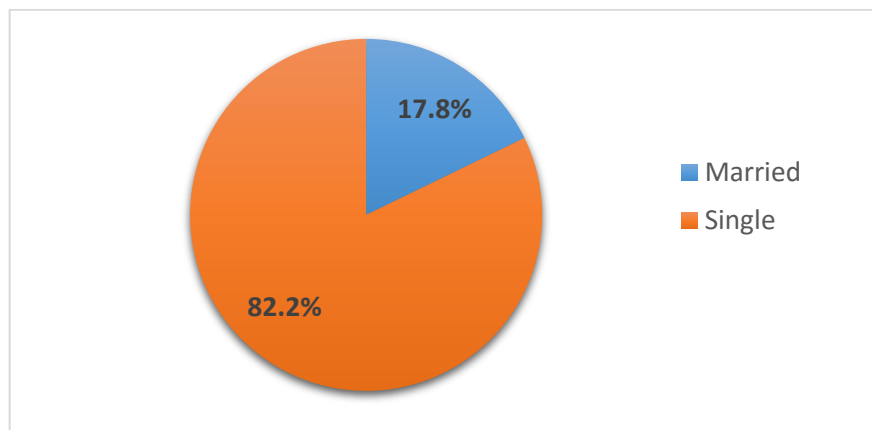


Figure 4.3. The proportion of respondents by marital status

The proportion of international students based on the number of children they have is depicted in Figure 4.4. From 466 international students involved in this research, almost 90% of them do not have any children; of those who do have

children, the survey reported on one child (5.2%), two children (3.6%) and more than two children (1.8%).

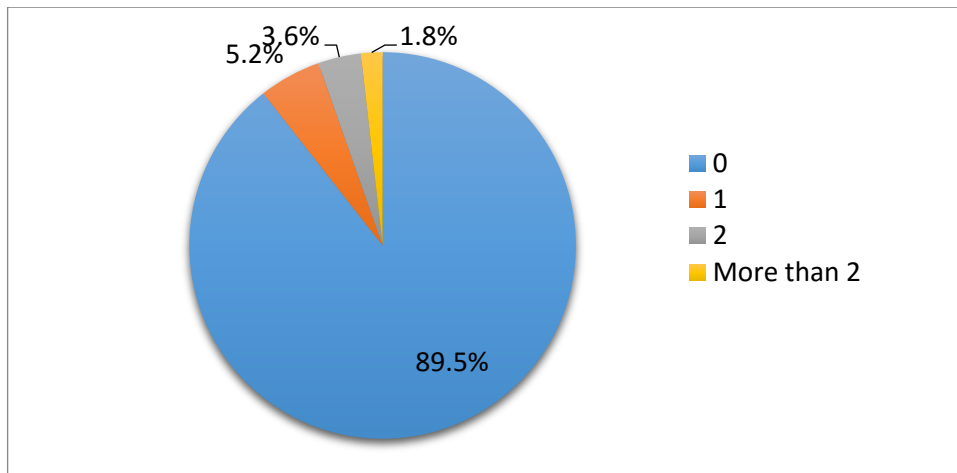


Figure 4.4. The proportion of respondents by number of children

Even though very few have children, 20% of respondents revealed that they live together with family members while working and studying in Australia, as shown in Figure 4.5.

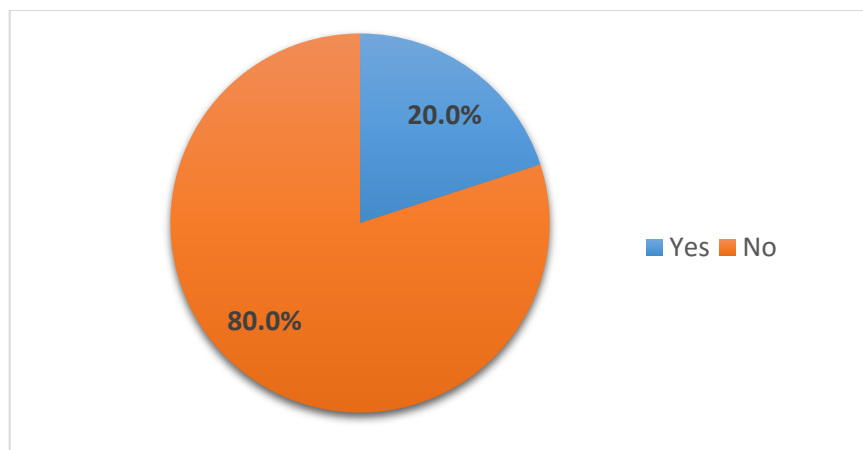


Figure 4.5. The proportion of respondents who have family members living in Adelaide

Figure 4.6 shows that more than 50% of international students who have experience of working while studying in Australia come from China. Malaysia and Indonesia contribute to this category with 12.57% and 6.81%, respectively.

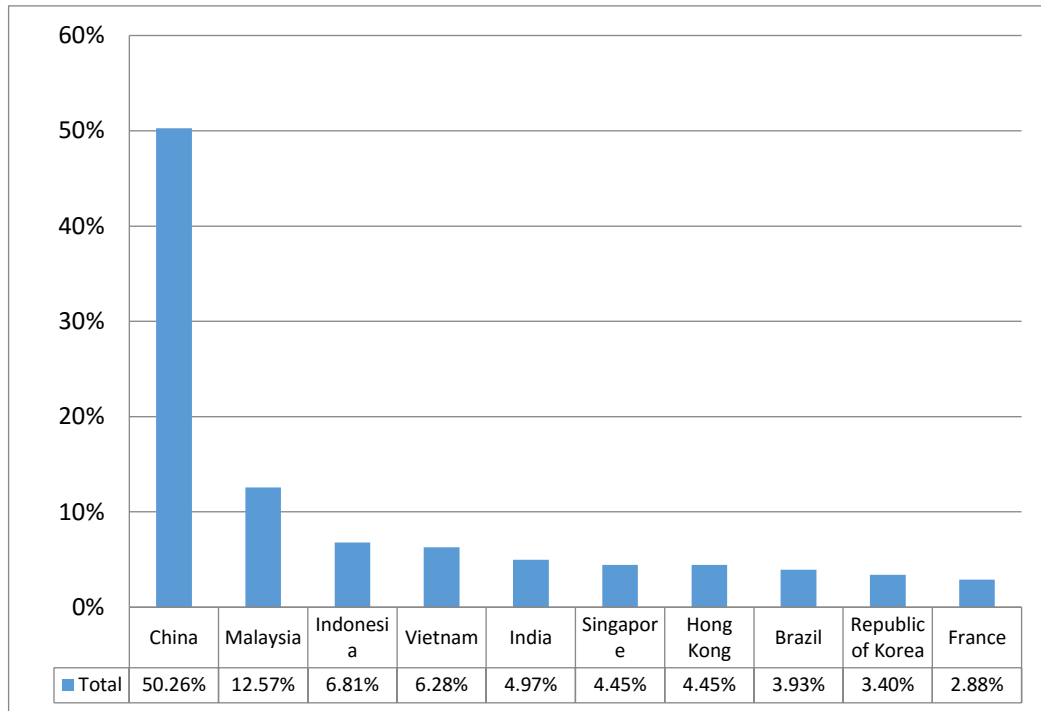


Figure 4.6. The distribution of respondents by 10 biggest countries of origin

#### 4.4.1.2 *International students' academic backgrounds*

This section shows participants' academic backgrounds. It presents faculties, year of study, study program and financial support of the international students.

Figure 4.7 depicts the different proportions of international students based on the five faculties across the University of Adelaide, demonstrating that more than 39% of respondents are from the Faculty of the Professions. The faculty of the Professions includes the School of Architecture and Built Environment, Business School, Entrepreneurship, Commercialisation and Innovative Centre (ECIC), Executive Education Unit, School of Economics, and Law School. This is followed by the Faculty of Engineering, Computer and Mathematics, which contributes about 25%. The smallest proportion came from the Faculty of Humanities and Social Sciences (the name has been changed now to Faculty of Arts), with only 9%.



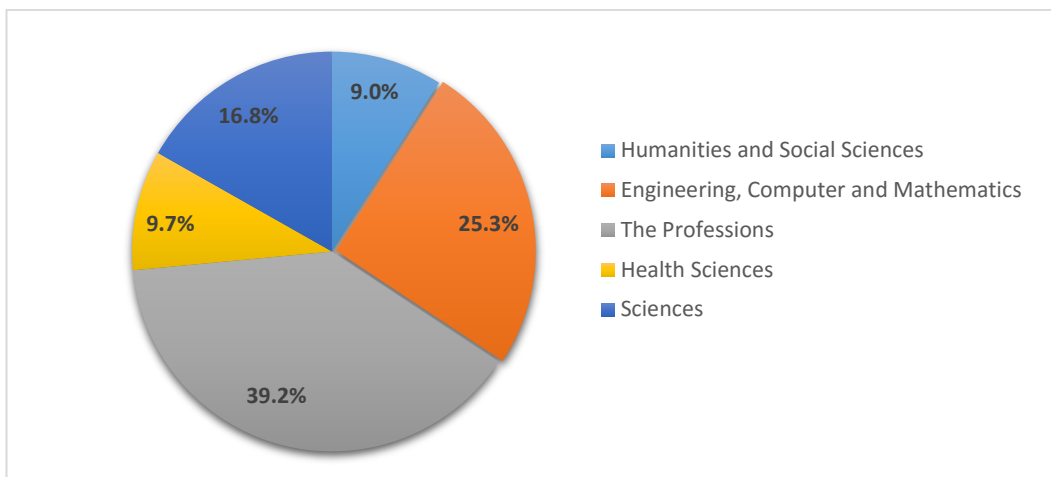


Figure 4.7. The proportion of respondents by faculties

Turning to the proportion of students based on year of study (Figure 4.8), the biggest proportion of respondents were from students who are in their first year of study, being more than 34% of the total participants. As can be seen from the graph, the proportion of the participants gradually decreased following the year of study.

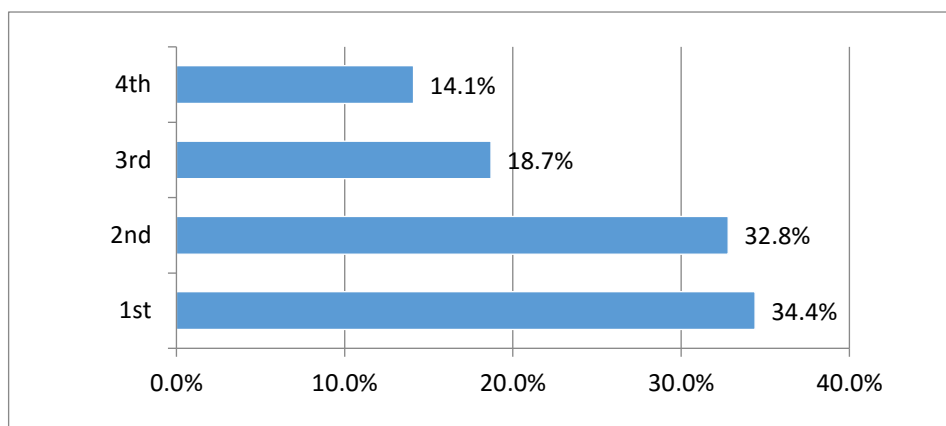


Figure 4.8. The proportion of respondents by year of study

The percentage of participants based on study program is presented in Figure 4.9. There were 39% of students from masters programs that representing the biggest group participating in this study. This group was followed by undergraduate, then PhD and study abroad or exchange programs, with the percentage of contributions being 35%, 14% and 12%, respectively.

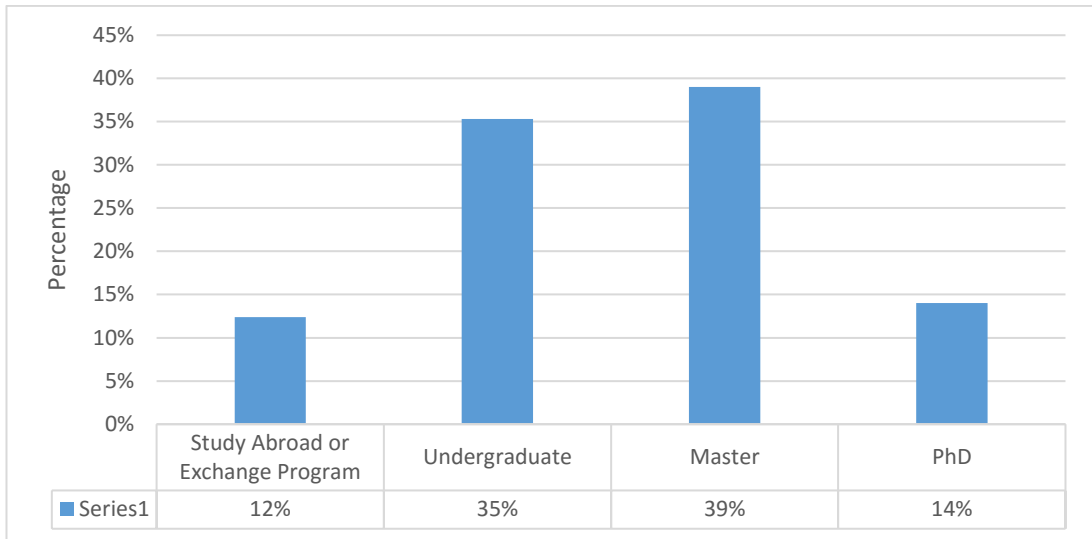


Figure 4.9. The proportion of respondents by study program

Figure 4.10 reveals information about the percentage of student participants based on financial support. As shown in the graph, most of the international students who participated in this research were privately funded. More than 65% of participants were privately funded students, followed by full scholarship students (27.4%) and partial scholarship students (6.1%).

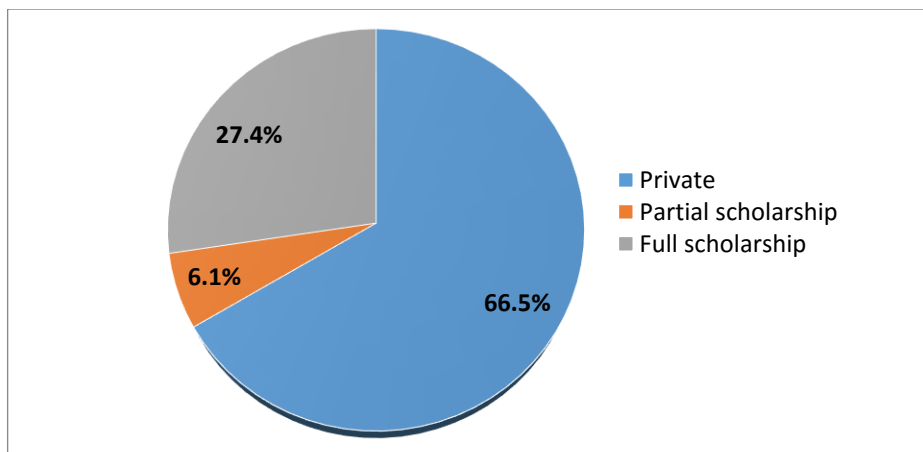


Figure 4.10. The proportion of respondents by financial support

#### 4.4.1.3 *International students' reasons for working*

Prior to exploring the working experience of international students, this survey attempted to investigate the students' reasons for working. Figure 4.11 depicts eight reasons for international students participating in paid employment.

To get extra money, to pay living costs and to supplement living allowance were the three main reasons they worked while studying, with percentages of the participants reporting this at 55.3%, 54.1% and 32.6%, respectively.

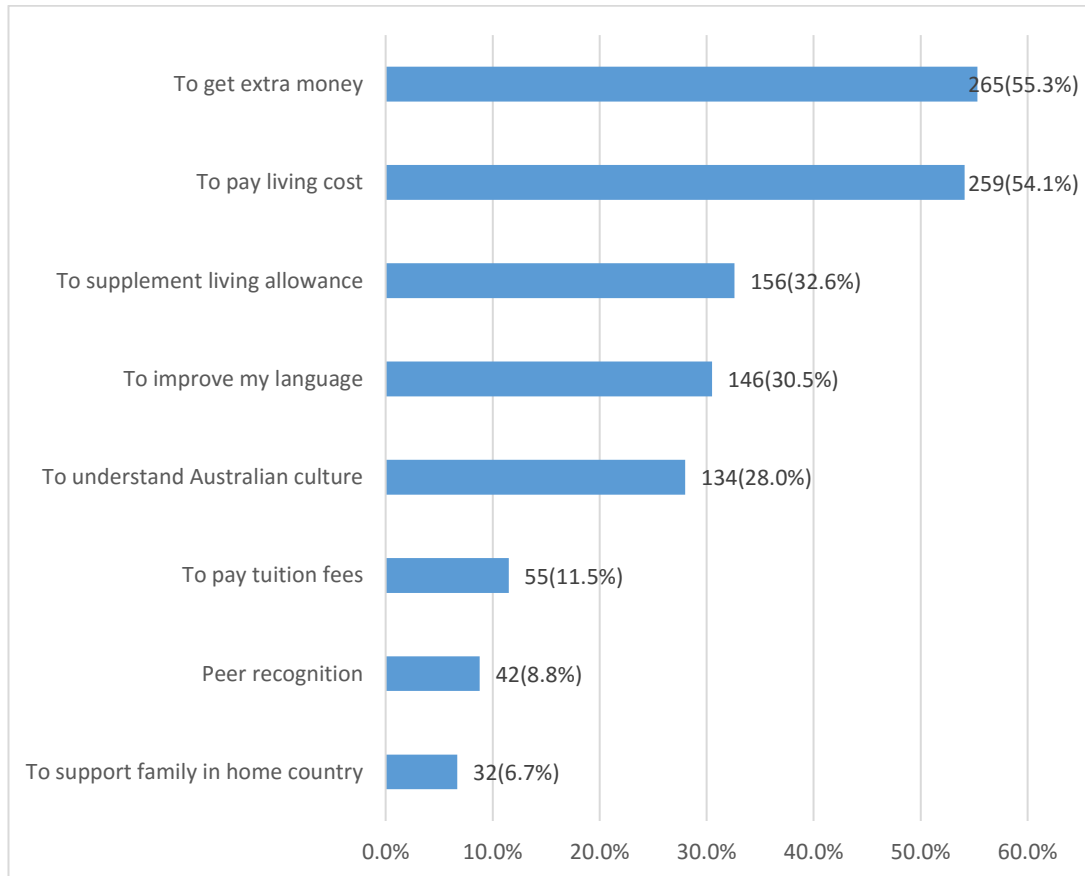


Figure 4.11. International students' reasons to work (multiple responses)

Interestingly, more than 30% of respondents revealed that one reason to be involved in the Australian workplace was to improve their English. Moreover, 28% of participants claimed that understanding Australian culture became their main motivation to take a paid job.

#### 4.4.1.4 International students' working experiences

This section presents data on job status and number of jobs that the international students had, and the sector of industry and working conditions of their jobs. This section also discusses international wage fairness, rates of payment and wage structure.

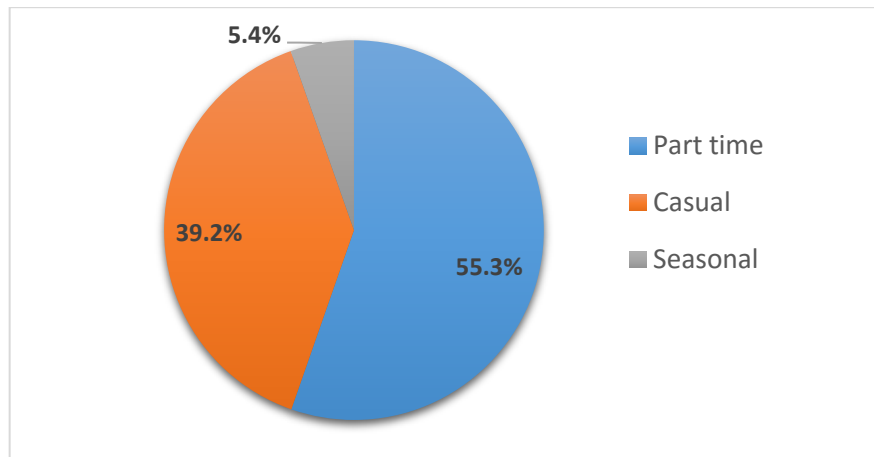


Figure 4.12. The proportion of respondents by job status

Figure 4.12 illustrates the percentage of respondents based on job status, while Figure 4.13 presents information related to the proportion of the participants by the number of jobs students have experienced. It can be seen that among the 466 respondents, more than 50% were engaged in part-time work and approximately 39% of the participants had experience in casual jobs. Only 5.4% of this group had been involved in seasonal employment.

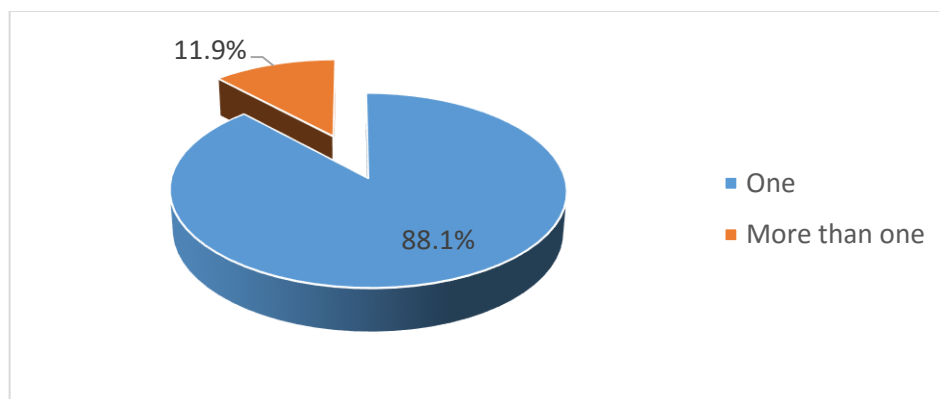


Figure 4.13. The proportion of respondents by number of jobs

Moreover, it can be inferred from the Figure 4.13 that more than 88% of students only have one job.

Figure 4.14 compares the percentage of four sectors of industries named: restaurant, supermarket/grocery/shop, cleaning, and agriculture. By far the largest group, more than 42% of the total participants, revealed that they had working experience in the hospitality sector.

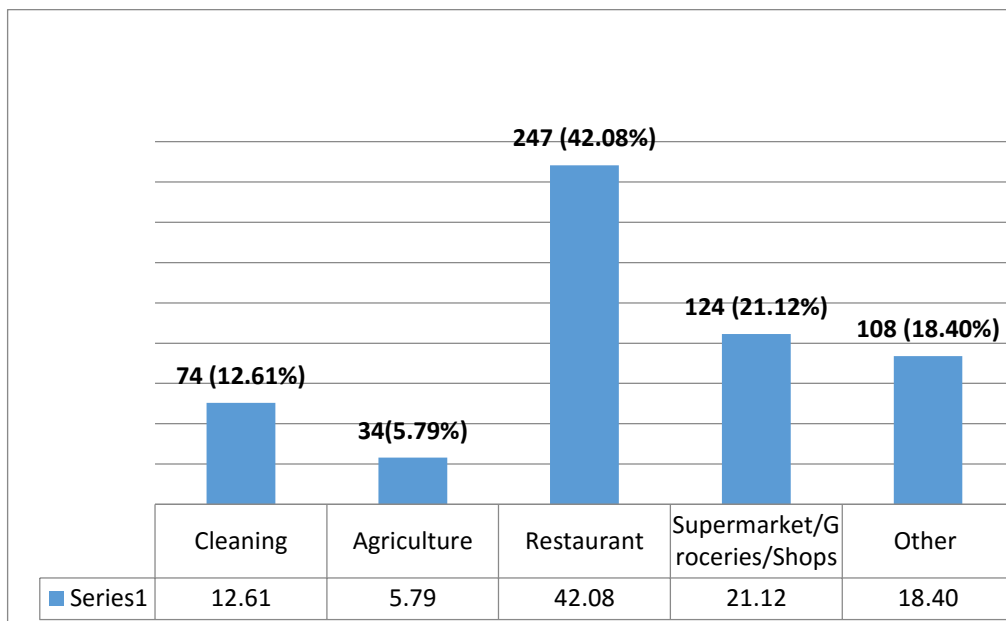


Figure 4.14. The percentage of respondents by industry sector (multiple responses)

About 21.12% of participants had been working in the supermarket/grocery /shop sector, followed by the cleaning and agriculture sectors, with percentages at 12.61% and 5.79%, respectively. About 18% of respondents revealed that they worked in another category, including education, human services, medical, nursing home, tutorial, education, university, hotel, marketing, accounting, sales and dental clinics.

The comparison between students who had worked indoors and outdoors is presented in Figure 4.15. More than 92 % of respondents claimed that they worked mainly in an indoor working environment.

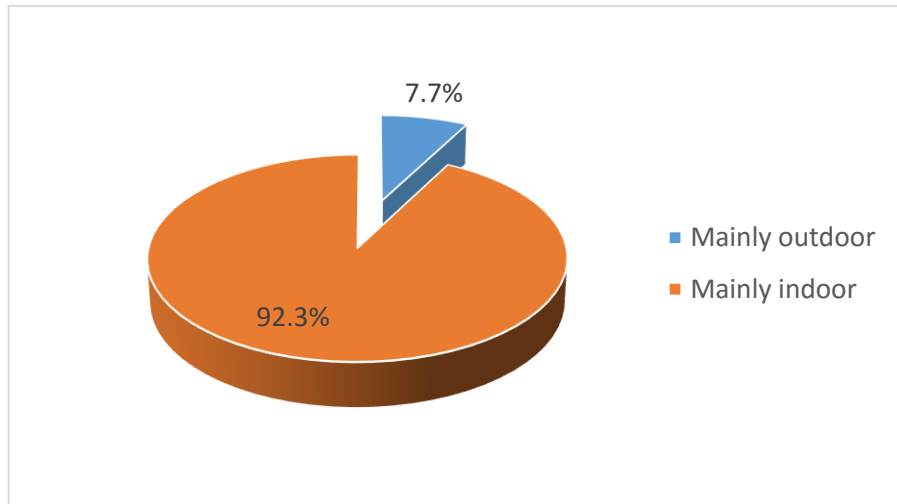


Figure 4.15. The proportion of respondents by working condition

The pie chart in Figure 4.16 compares students based on their perception of the fairness of wages that they received during their working experiences. When asked about whether they felt that they received fair pay for their work, almost 43% responded that their wages were unfair.

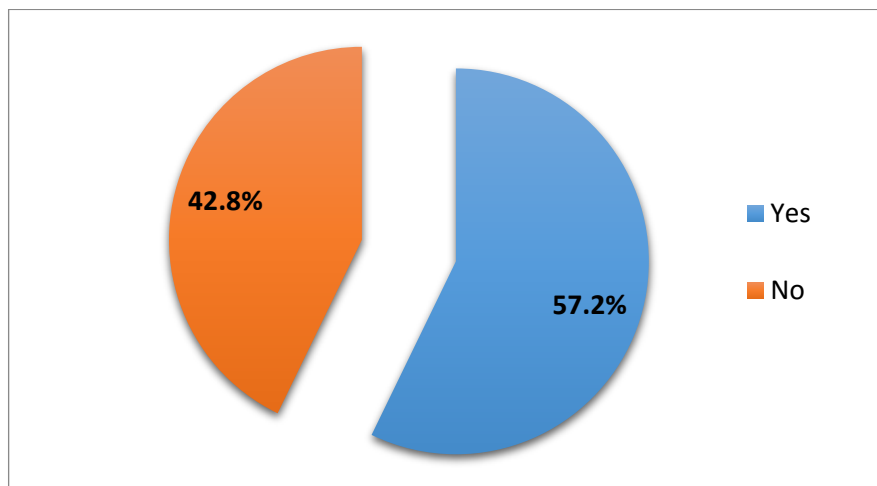


Figure 4.16. The proportion of respondents by perception of wages fairness

Figure 4.17 shows the percentage of students' rate of payments per hour according to 36 categories. According to the National Minimum Wage Order 2014, the minimum standard wage for employment on an hourly basis was \$16.87 per hour. It can be inferred from the graph that more than 50% of students were underpaid.

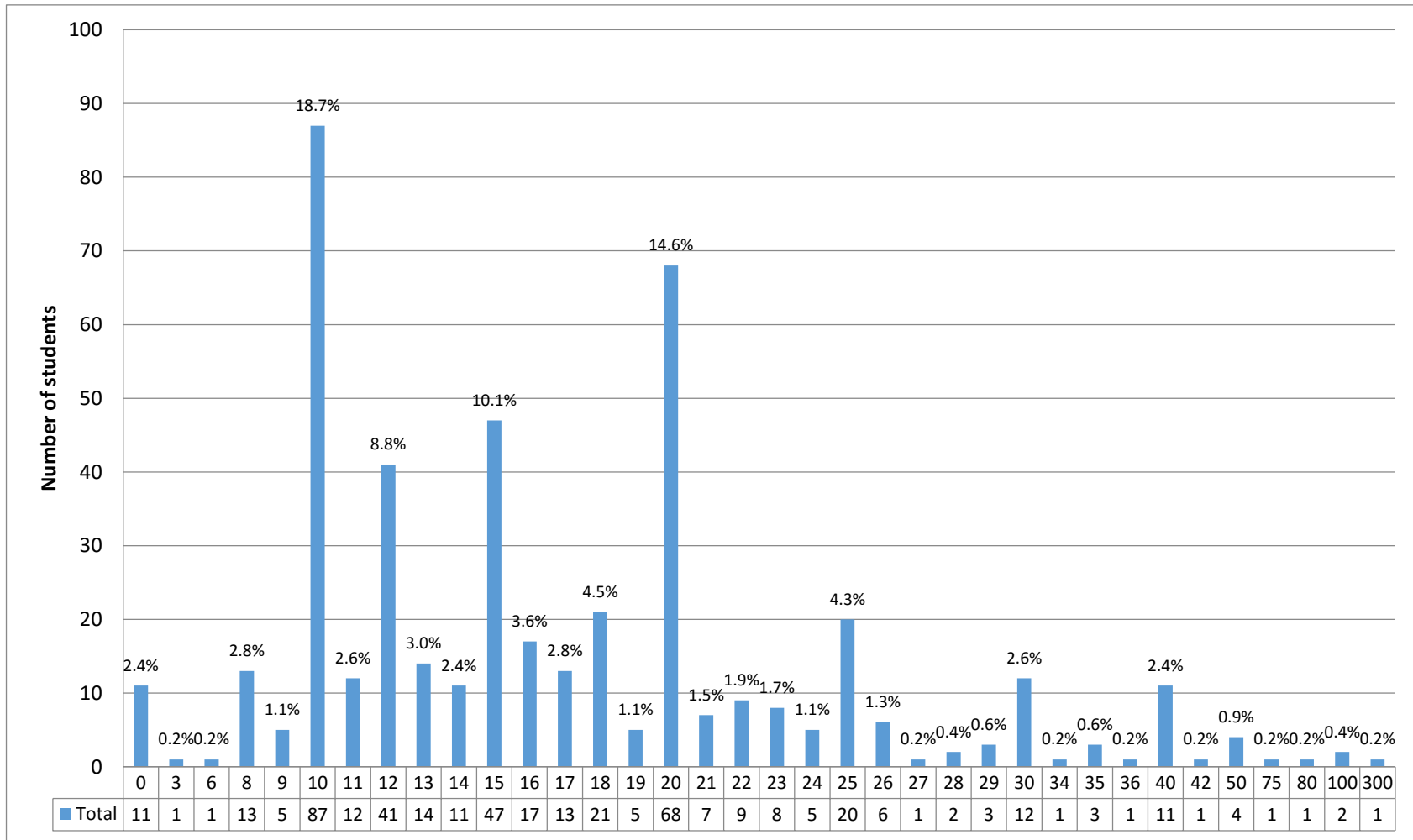


Figure 4.17. The distribution of respondents by rate of payment

International students' knowledge regarding the award wage structure and minimum rate of pay is depicted in Figure 4.18. It can be seen from the graph that there were more than 40% of respondents who did not know about these issues. When placed alongside Figure 4.16, it can be assumed that some of those who feel that their pay is fair are among those who are unaware of the minimum pay rate.

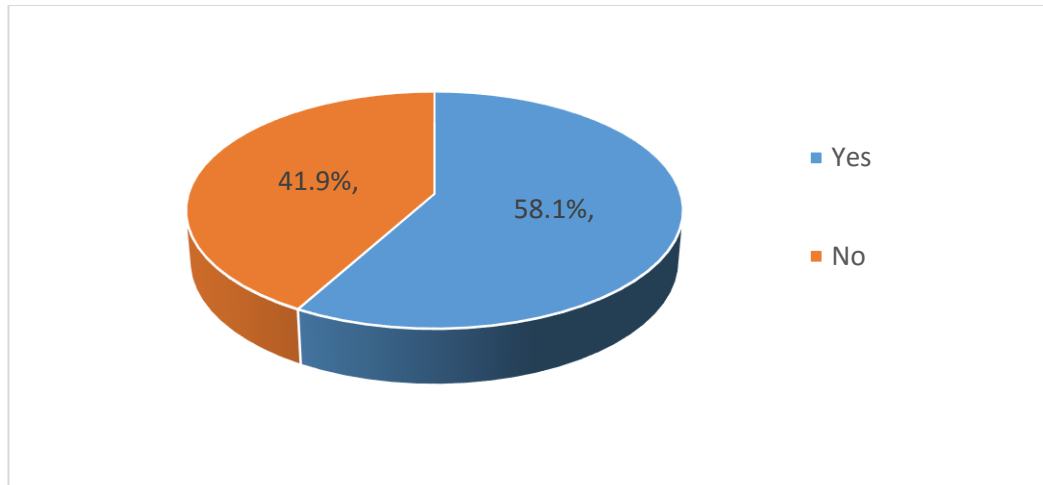


Figure 4.18. The proportion of respondents by know about award wage structure and minimum rate of pay

The award wage structure is annually reviewed by the Australian Fair Work Commission. According to this commission, an employer must pay workers based on a rate of pay at least the same as the following percentage in Table 4.1 which is adapted from the Fair Work Commission (2014).

Table 4.1. The percentage of rate of pay based on age (Fair Work Commission, 2014)

| Age                        | % of rates of pay |
|----------------------------|-------------------|
| Under 16 years of age      | 36.8              |
| At 16 years of age         | 47.3              |
| At 17 years of age         | 57.8              |
| At 18 years of age         | 68.3              |
| At 19 years of age         | 82.5              |
| At 20 years of age         | 97.7              |
| At 21 years of age or more | 100               |



Figure 4.19 provides information about international student workers' distribution based on working hours. The vast majority of students worked less than 20 hours per week; only about 13% of them devoted 20 hours or more per week to the workplace.

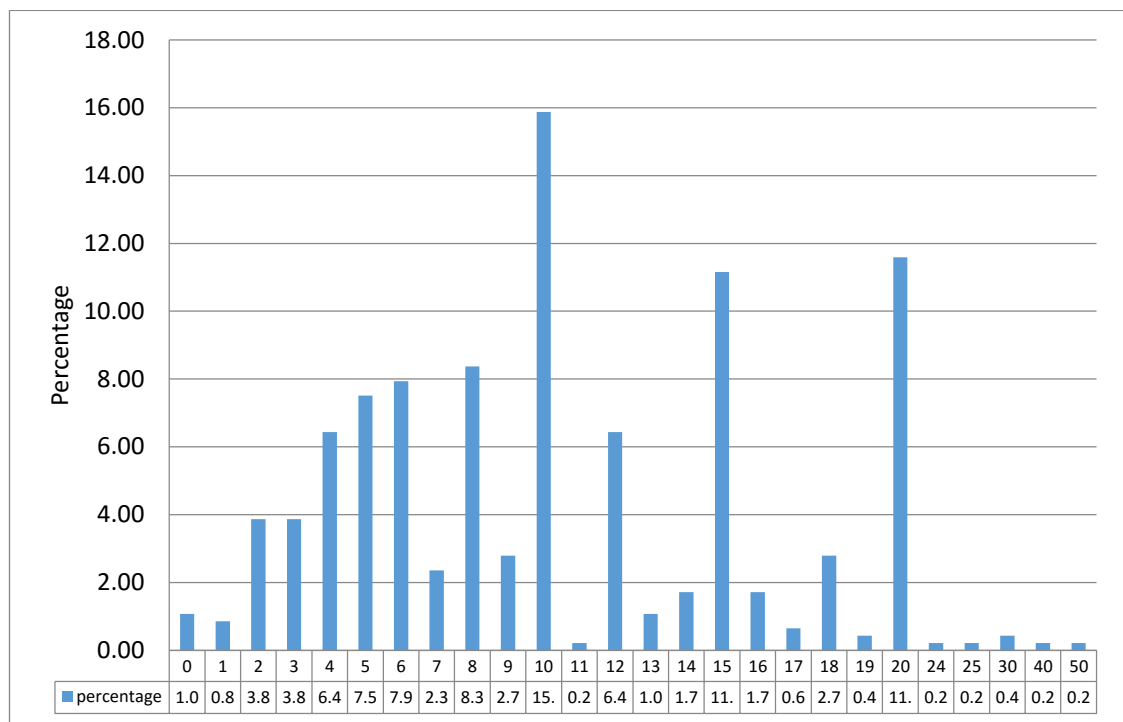


Figure 4.19. The distribution of respondents by number of working hours per week

Figure 4.20 illustrates the distribution of the research participants based on how many months they had been working while studying in Australia. As can be seen, most respondents were new workers (about 75%). A new worker is defined as a worker who has less than 365 days working experience or less than one year (SWSA, 2014). There were about 30% of respondents who had working experience of one month or less, and only about 7% of the total 466 participants had two years or more working experience.

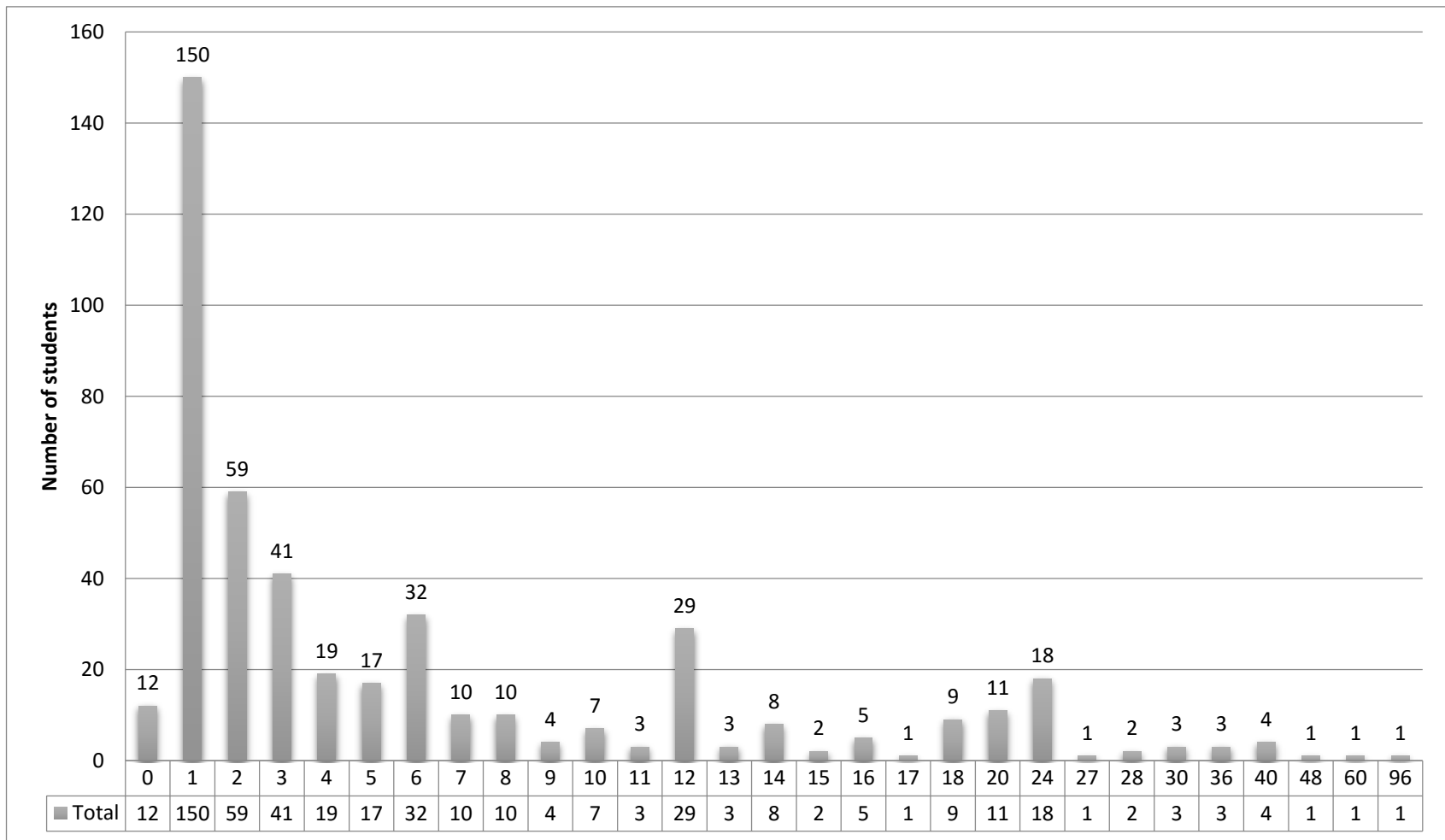


Figure 4.20. The distribution of respondents by working length (months)

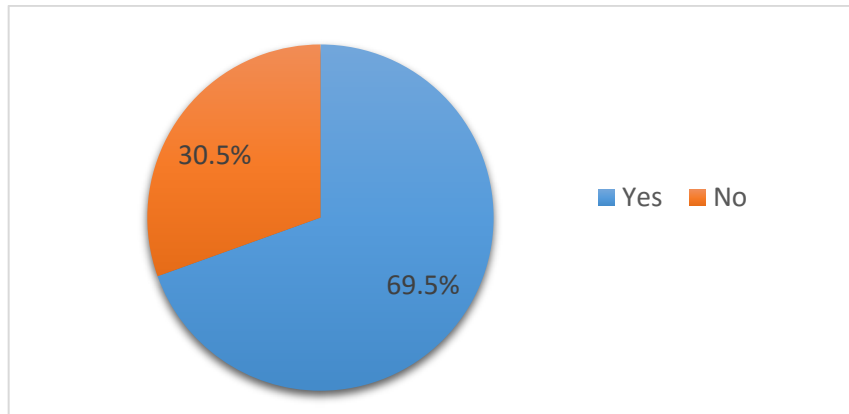


Figure 4.21. The proportion of respondents working under supervision

The pie chart in Figure 4.21 shows the comparison of students who worked under supervision and without supervision. Almost 70% of participants mentioned that they worked under supervision.

#### 4.4.1.5 *International students' OHS training experiences*

The following figures present international student participants experiences related to training in OHS. The figures comprise the location, the length, training modes, format of training, training assessment, and students' perception of training.

Figure 4.22 reveals that more than 60% of the total 466 participants did not receive any OHS training before they started to work.

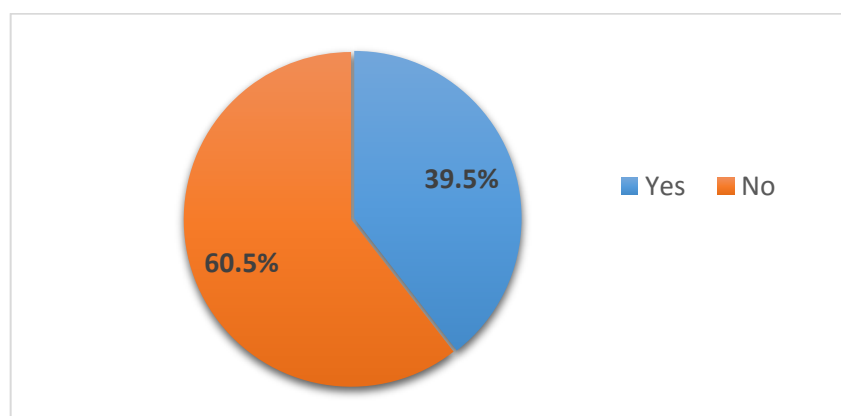


Figure 4.22. The proportion of respondents who have had some OHS training

Considering the location where the OHS training took place, Figure 4.23 explores information about whether this was in the university, TAFE, high school or as part of a voluntary job outside school. The bar chart reveals that university was the main location for students obtaining OHS training, with more than 50% of participants appearing in this sub-group.

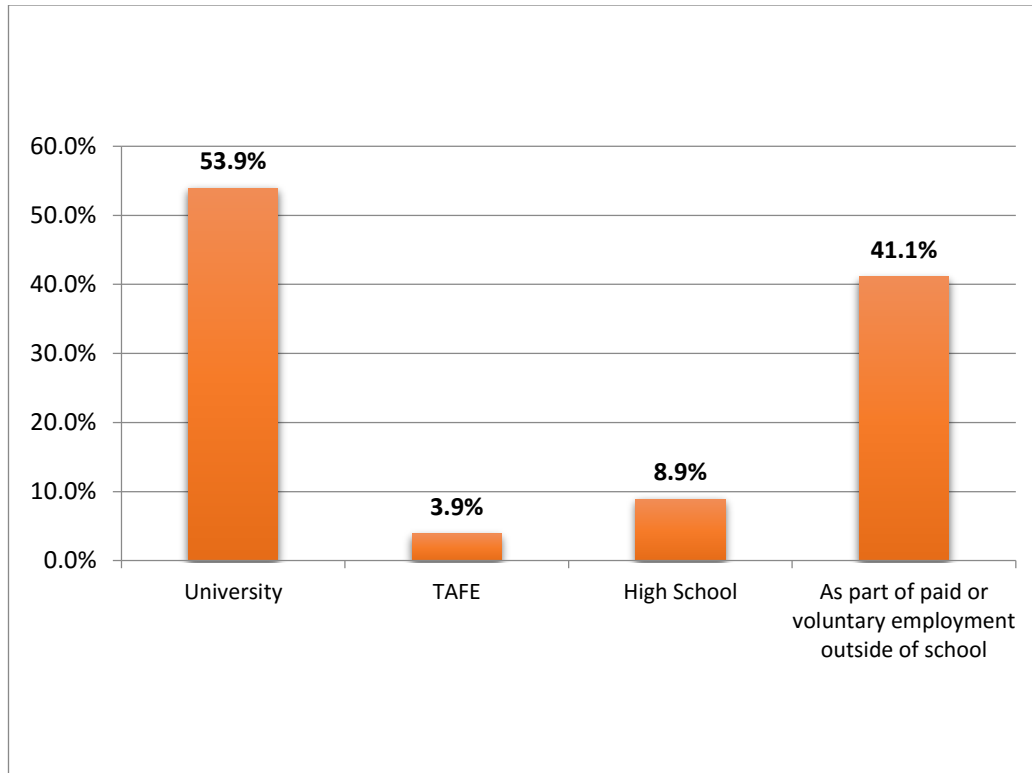


Figure 4.23. The percentage of respondents who had OHS training experiences by location of training (multiple responses)

Figure 4.24 presents the percentage of study participants based on training duration in hours. As depicted, two hours training was the most common training that the participants had (30%). This category was followed by one hour and three hours training, with 17% and 15% of students, respectively.

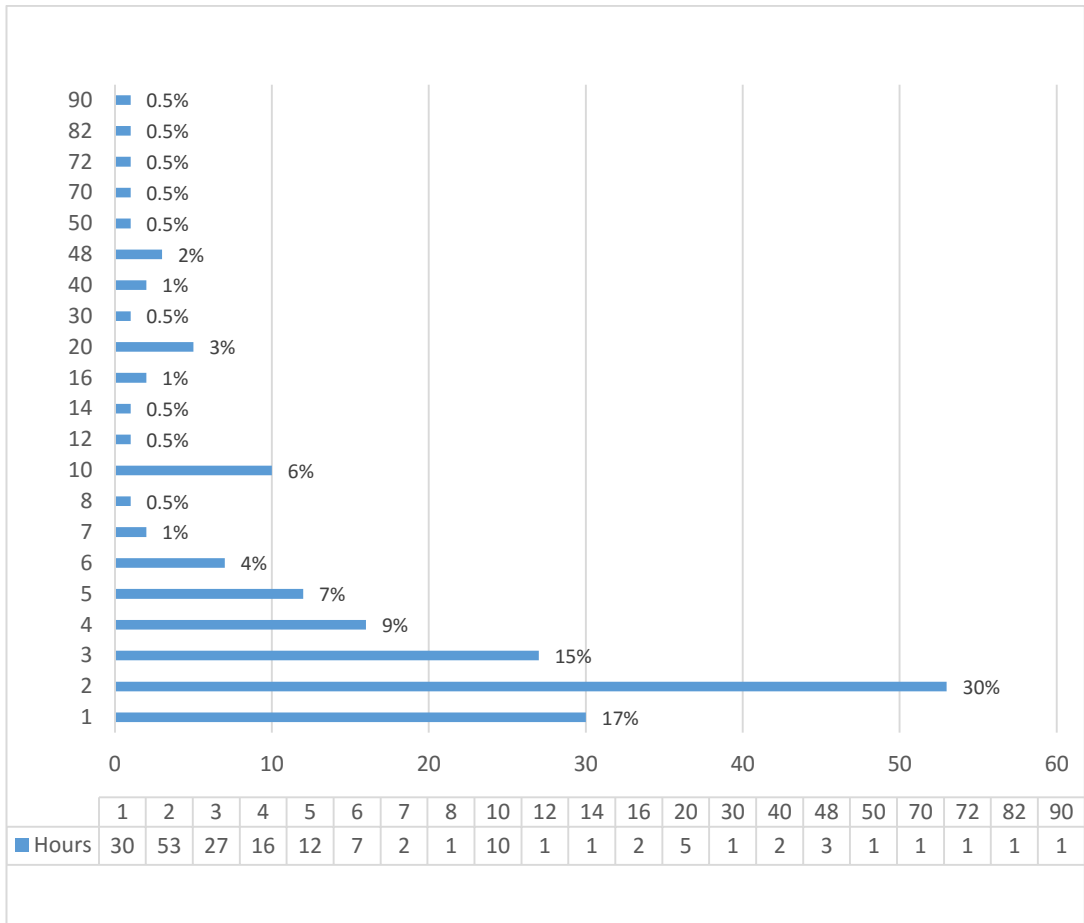


Figure 4.24. The distribution of respondents who had OHS training by length of training (hours)

The pie chart in Figure 4.25 compares mode of training among participants who had OHS training experiences. This is divided into three categories: single brief session, formal course, and ongoing/repeated training.

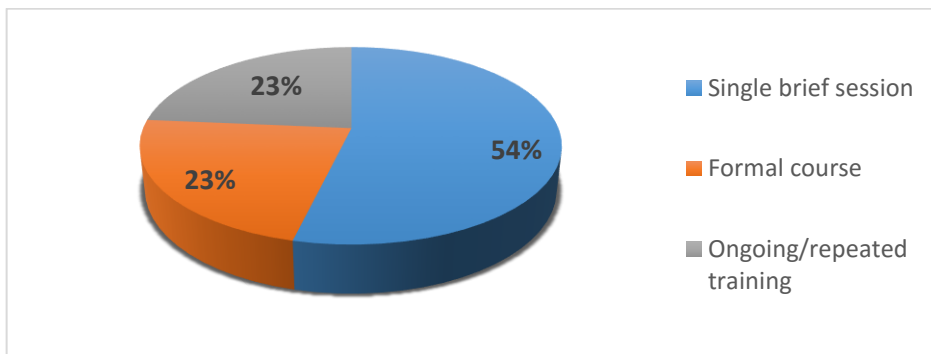


Figure 4.25. The proportion of respondents who had OHS training by training mode

More than 50% of study participants reported that they had joined a single brief session of OHS training. The rest of the responses were evenly divided between formal courses and ongoing/repeated training, with 23% each from the total participants in this subgroup.

The comparison of the group of students based on format of OHS training is illustrated in Figure 4.26. More than 70% of the respondents claimed to have attended face-to-face OHS training.

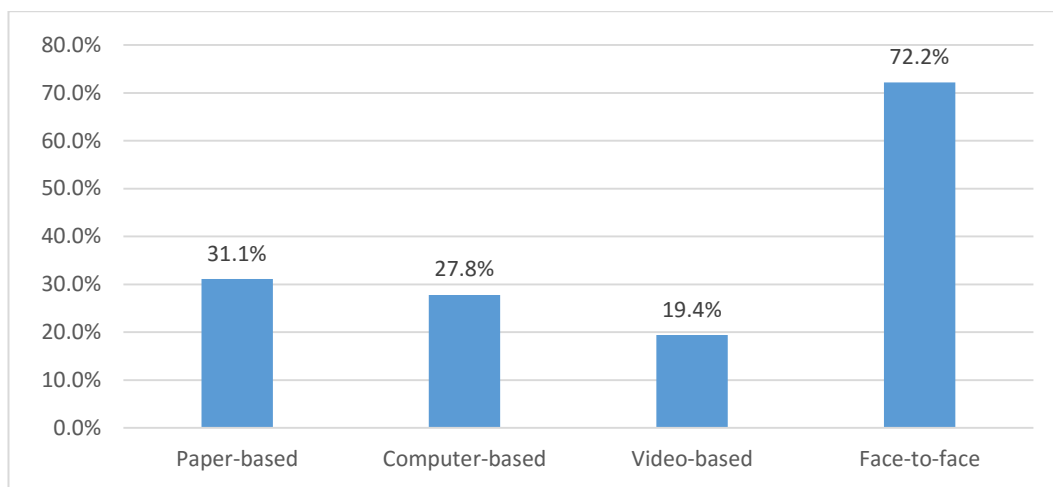


Figure 4.26. The percentage of respondents who had OHS training by format of the training (multiple responses)

The following pie charts show international students' OHS training experiences based on whether it was assessed, and students' perception of the training provided. Figure 4.27 illustrates that more than 66% of participants were assessed on the training compared to another group with 34% of them without assessment.

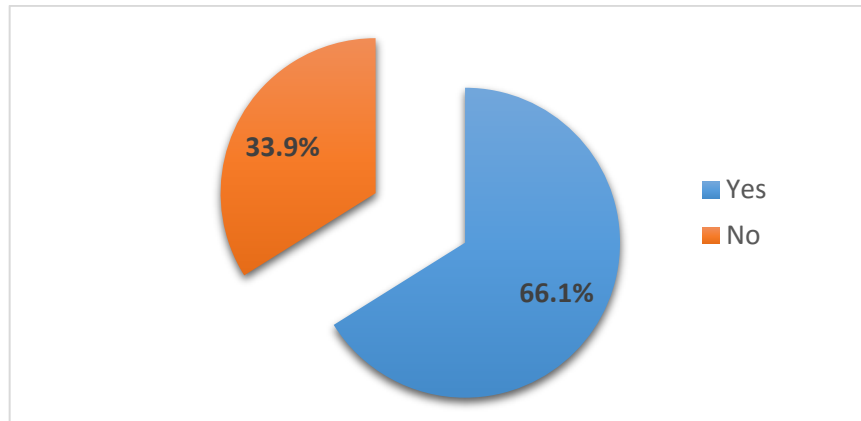


Figure 4.27. The proportion of respondents who had OHS training by assessed on the training

Turning to Figure 4.28, more than 84% of a total 187 participants in this sub-group maintained that OHS training provided was about right. Approximately 11% of students claimed that they had received too little OHS training. Only a very small percentage, less than 5%, revealed that they had received too much OHS training.

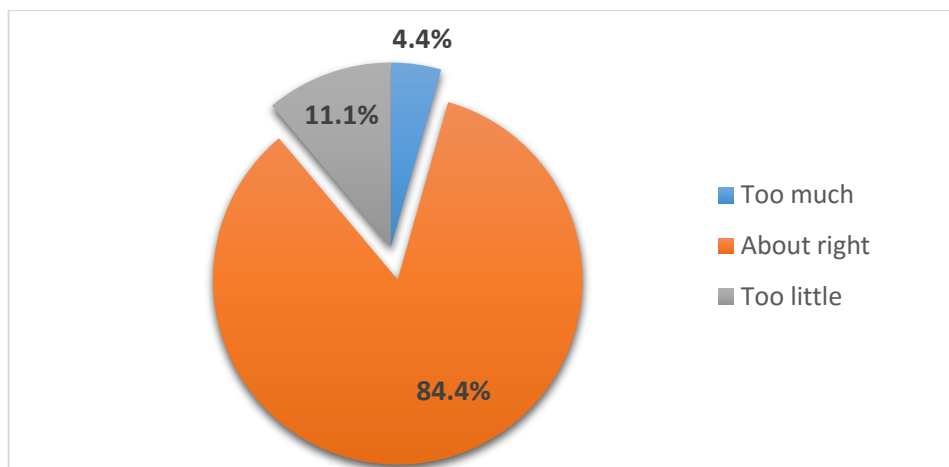


Figure 4.28. The proportion of respondents who had OHS training by perception of the training

Figure 4.29 reveals information related to international students' perception of their confidence to discuss OHS issues with relevant persons. As can be seen, more than 57% of students were confident discussing OHS issues.

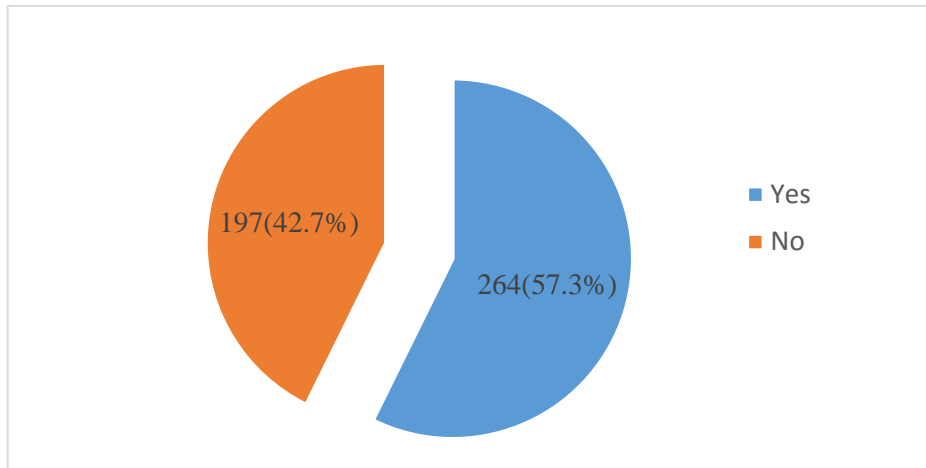


Figure 4.29. The proportion of respondents according to level of confidence to discuss OHS issues with lecturer, or other relevant person

#### **4.4.1.6 International students' injury experiences**

The main objective of this research is to improve health and safety conditions and prevent occupational injury among international student workers. Hence it is important to explore international students' injury experiences in the Australian workplace to depict the magnitude of the problem and identify its predictive factors. As health and safety hazards exist in every workplace, it is first necessary to understand participants' perception of the existence of health and safety hazards in their own workplaces.

Figure 4.30 presents participants' perception of the hazards/risks that they have in the workplace. As can be seen from the graph, more than 50% of respondents perceived that there were no risks that associated with their jobs. Some did admit that their jobs were stressful (second largest percentage) and involved lifting and/or repetitive movement (third largest percentage). Chemical, machinery, and microbiological hazards were the smallest three groups mentioned by the participants.



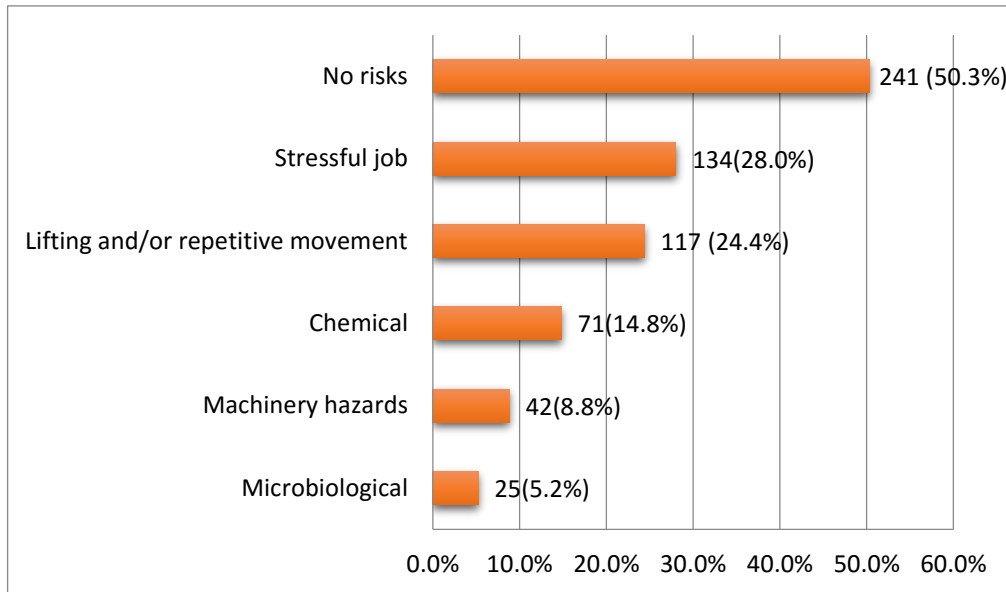


Figure 4.30. The percentage of respondents by perception of the existence of hazards/risks in their workplace (not mutually exclusive)

Figure 4.31 illustrates the proportion of participants who had experienced injury before and after OHS training. It can be seen from the graph that 48 students (10.3%) had experienced injury in the workplace. More than 43% of these individuals experienced the injury after completing OHS training.

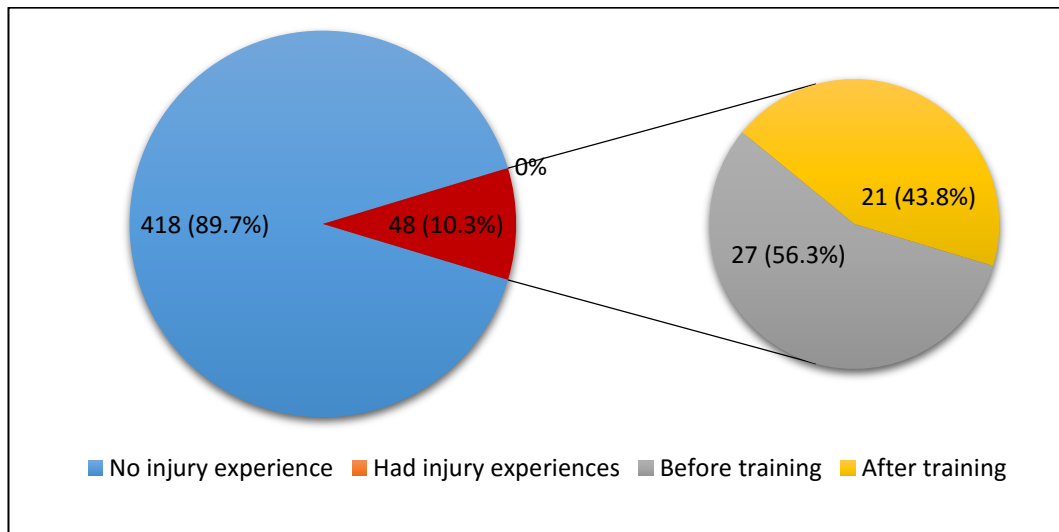


Figure 4.31. The proportion of respondents by injury experiences and time of injury before and after OHS training

Focusing on students who had injury experiences, Figure 4.32 provides the students' frequencies of injury. There were 24 students (50%) of this sub-group who revealed that they have experienced only one injury.

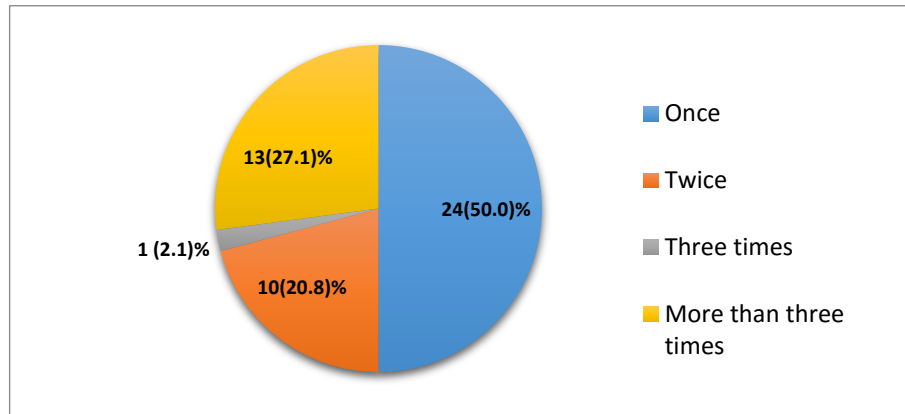


Figure 4.32. The proportion of respondents who had injury experiences by injury frequencies

Figure 4.33 presents the proportion of respondents based on the kind of injuries. Four main types of injuries were highlighted by the participants: cuts, burns, strains and slips/falls.

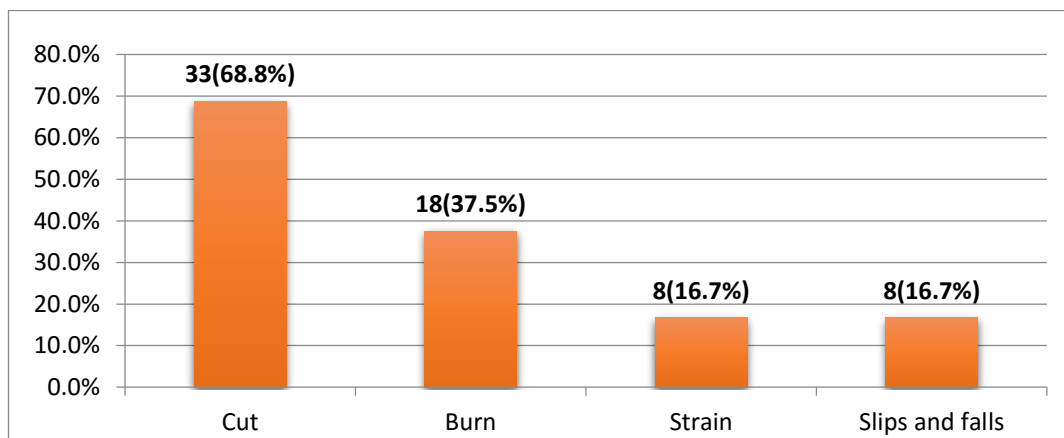


Figure 4.33. The proportion of respondents by who had injury experiences by kind of injuries (multiple responses)

Almost 70% of the participants experienced being cut; this was the most common injury that participants mentioned in this study. Getting burned was the second most common kind of injury. Strains and slips/falls, reflected the identical percentages (16.7%).

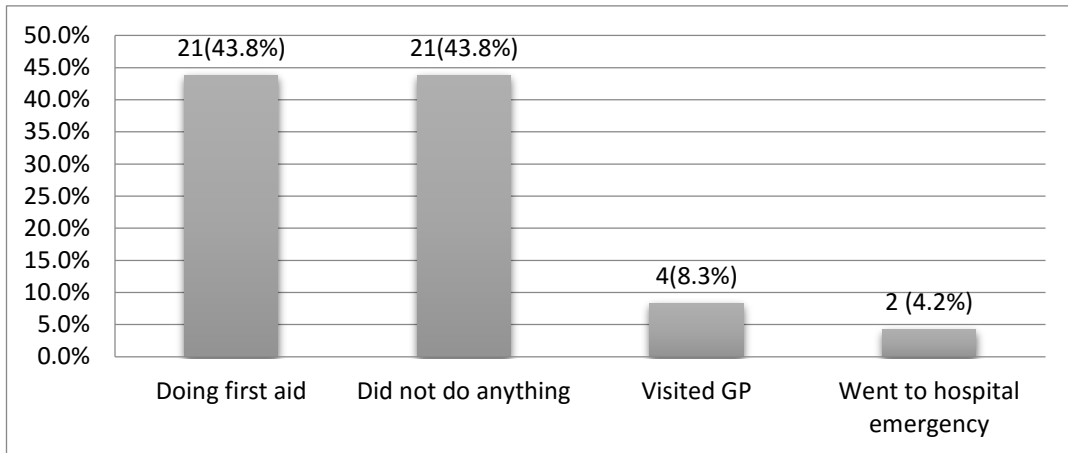


Figure 4.34. The proportion of respondents who had injury experiences by actions taken after injuries

Actions taken after having injuries are presented in Figure 4.34. Equal numbers of students reported doing first aid and doing nothing in response to their injuries. Less than 10% of injured students visited medical general practices. And about 4% of them went to hospital to seek emergency help. This small proportion of students who went to hospital was likely due to experiencing serious injury in the workplace.

Reporting the injury to their supervisor or the company after its occurrence is shown in the pie chart in Figure 4.35. As can be seen, more than 50% of the participants did not report the injury to either their supervisor or to the company where they worked.

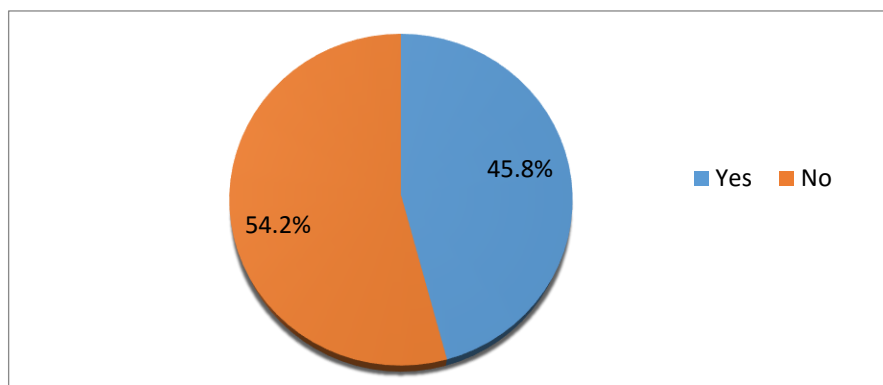


Figure 4.35. The proportion of respondents who had injury experiences by reporting injury to supervisor or company

Figure 4.36 shows that less than 10% of students participating in this study had witnessed any accident in the Australian workplace.

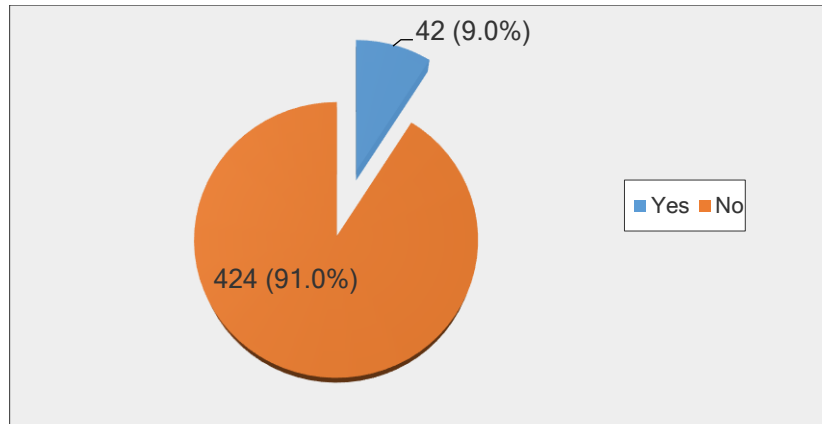


Figure 4.36. The proportion of respondents by experience to witness a workplace accident while working in Australia

Discrimination, intimidation and exploitation are three important issues that need to be taken into consideration in order to create healthy, safe working environments. The bar chart in Figure 4.37 illustrates those three categories from international students' perspectives during their working experiences in Australia.

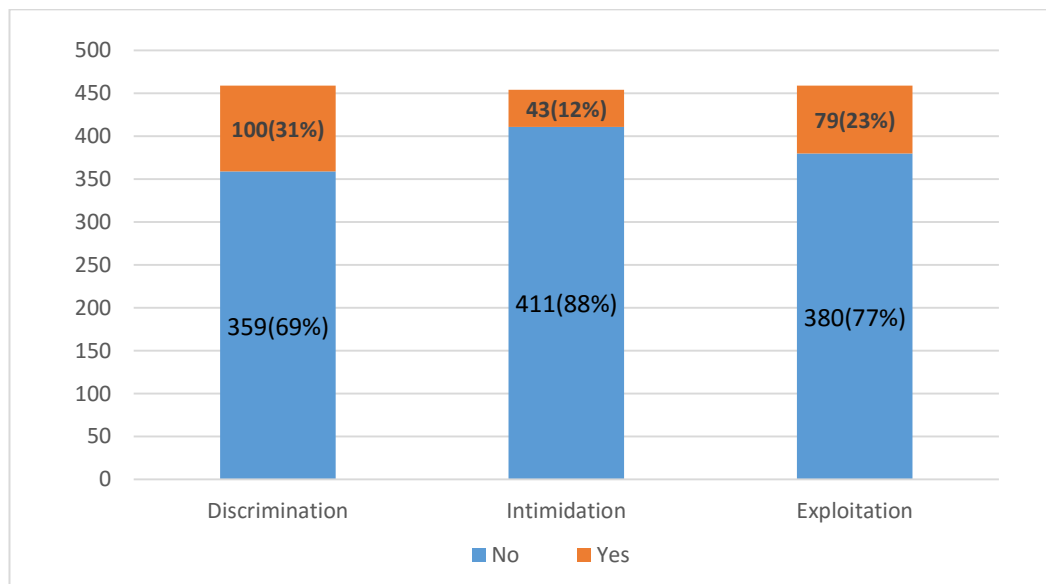


Figure 4.37. The percentage of respondents by discrimination, intimidation and exploitation experiences (multiple responses)

Among all participants, 31% revealed that they had experienced discrimination in the workplace. Furthermore, there were 43 students (23%) who maintained that they were intimidated while working, and 79 students (23%) felt they had been exploited in the Australian workplace.

#### 4.4.1.7 *International students' perception of work-study interference*

One of the potential consequences of having a paid job while studying is that working interferes with students' academic performance.

It can be inferred from Figure 4.38 that almost 70% of participants felt that working activities interfered with their study. About 60% of them maintained that employment sometimes created conflict with study and more than 6% of them claimed that they often felt that to be the case.

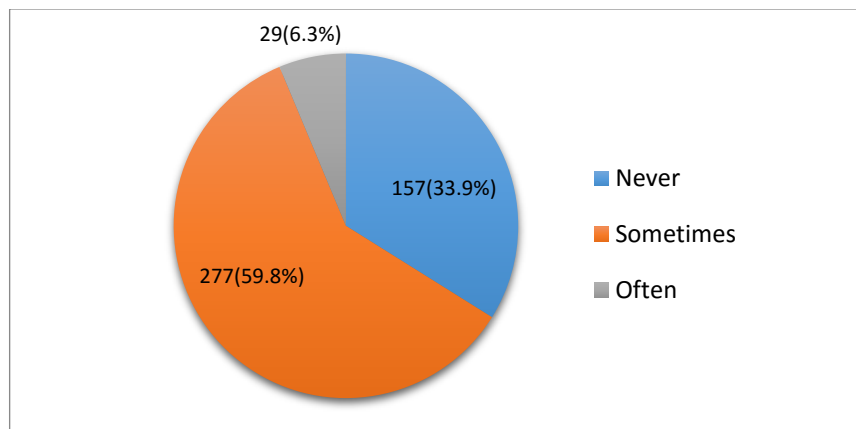


Figure 4.38. The proportion of respondents who feel that work interferes with study

Figure 4.39 presents the form of interference that paid employment had on study, including tiredness, timetable clash and failure to submit assignments/tasks on time. Among students who felt that working had impacted on their academic performance, 234 (76.5%) of them mentioned that they felt tired. About 40% maintained that they had a timetable clash between working and studying. Only

13.7% of them experienced failure to submit assignment on time as a result of having a paid job.

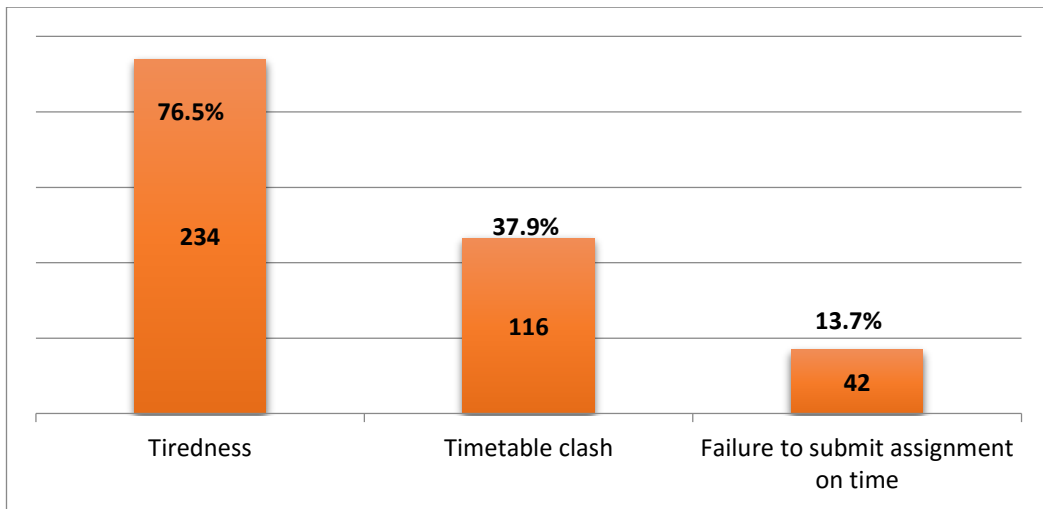


Figure 4.39. The percentage of respondents who felt that work interferes with study by form of interference with study (multiple responses)

Turning to Figure 4.40, this pie chart indicates that 50% of students felt stress because of having paid employment while studying.

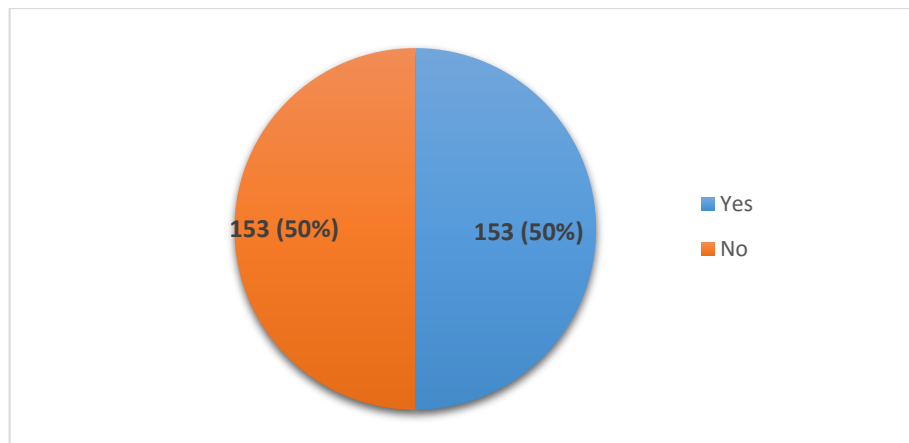


Figure 4.40. The proportion respondents who felt stress due to having a paid job while studying

#### 4.4.1.8 *International students' perception of the role of the university in OHS education*

The university is potentially an important provider for improving both health and safety knowledge and safe behaviour among international students. The following figures explore international students' perception of the role of the university in OHS education.

Figure 4.41 shows who students regard as being responsible for OHS awareness raising and providing OHS education. It can be inferred from the chart that most participants (69.9%) claimed that both the employer and the university were responsible. Furthermore, 13.9% of participants mentioned that the university was solely responsible for improving OHS awareness and education among international students.

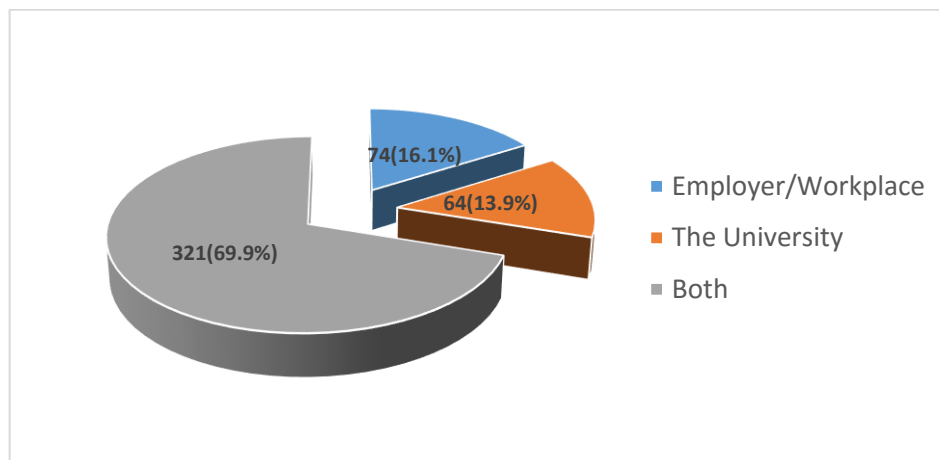


Figure 4.41. The proportion of respondents by perception of the responsible party for OHS awareness raising and education

Students' perceptions of whether OHS training has been included in the University curriculum are presented in Figure 4.42. As depicted, just over half (51.1%) of students believed that OHS has been included in their University study. However, nearly half of the participants (about 49%) claimed that OHS has not been integrated yet in the University curriculum.

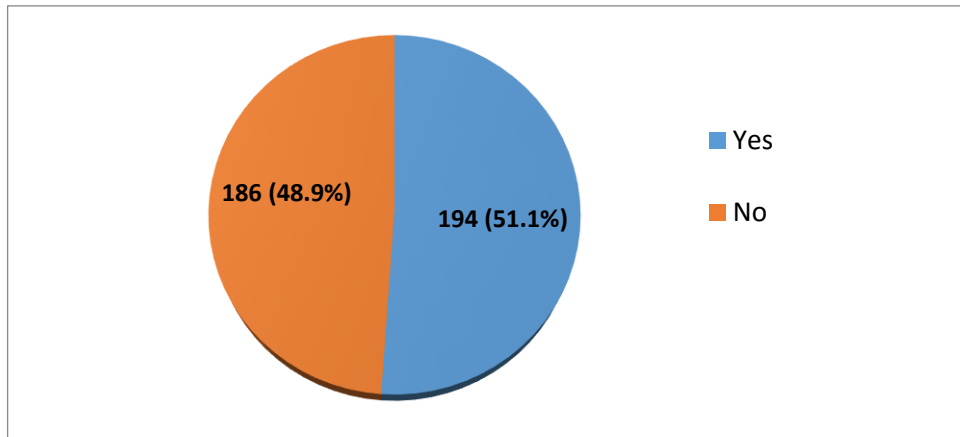


Figure 4.42. The proportion of respondents who think that OHS has been included in the University study

Figure 4.43 explores information related to the kind of OHS information provided in the University among students who think that OHS has been integrated in their University study.

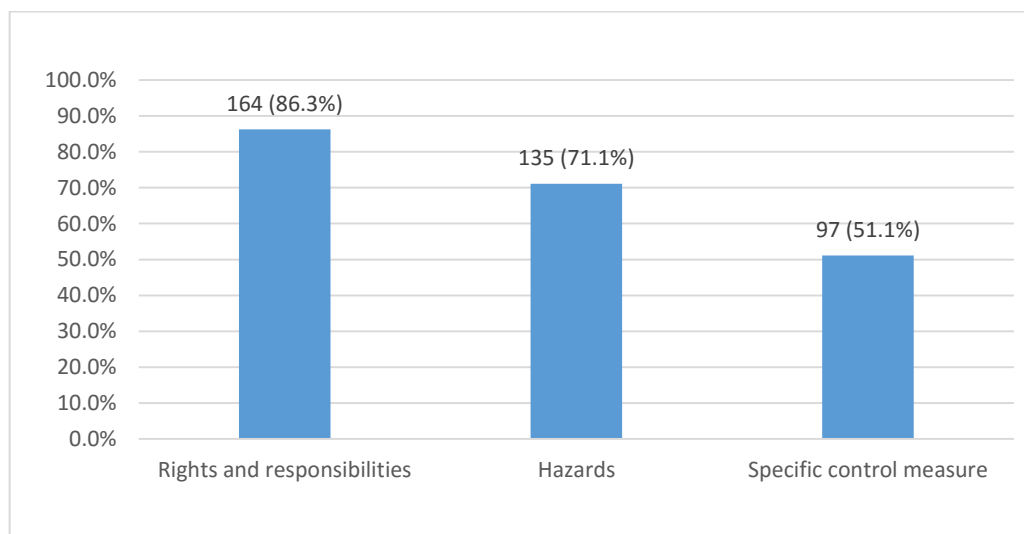


Figure 4.43. The percentage of respondents who think that OHS has been included in the university study by kind of OHS information was provided in the University (multiple responses)

It can be seen from the chart that more than 85% of participants of this subgroup maintained that workplace rights and responsibilities have been covered in the University study, and others felt that their university OHS training had covered hazards (71.1%) and specific control measures (97 participants, or 51.1%).



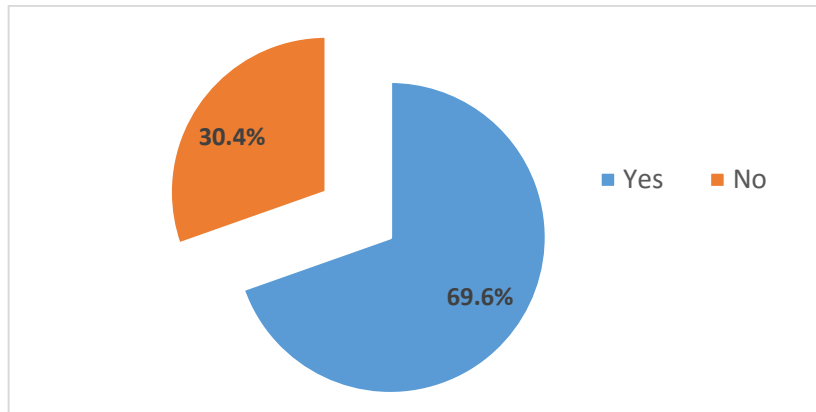


Figure 4.44. The proportion of respondents by think that the University needs to do more

A high proportion of participants maintained that the University needs to do more in order to improve OHS awareness and education among international students. As can be seen from Figure 4.44, almost 70% of students suggested that the University should improve its efforts in terms of providing OHS education that would lead to an increase students' safety knowledge and develop their safety behaviour.

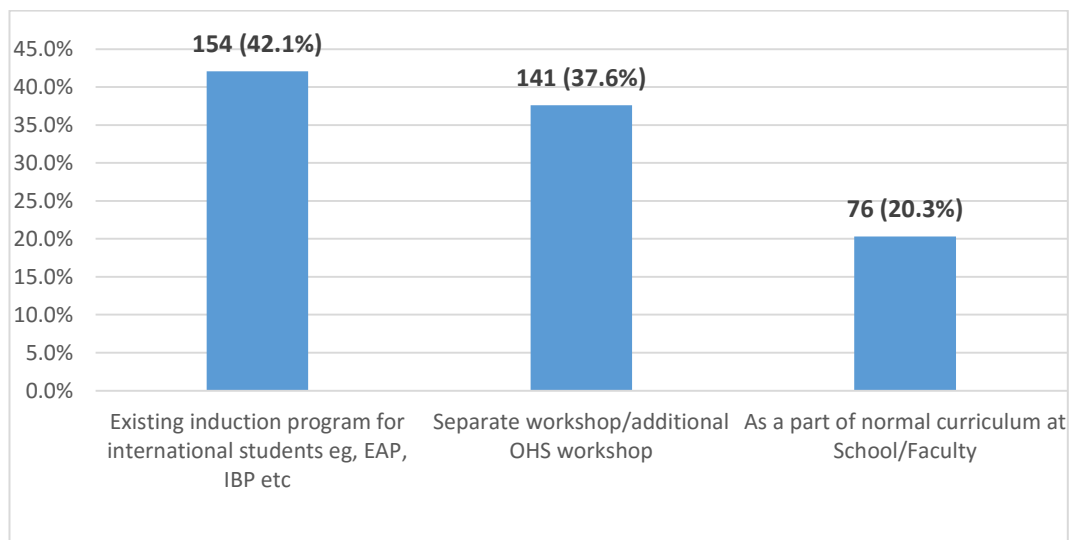


Figure 4.45. The percentage of respondents by suggested programs for OHS education (multiple responses)

The bar chart in Figure 4.45 explores information related to international students' suggestions about where OHS education could be included in the University programs.

They suggested that this education be included in the existing induction programs for international students such as Integrated Bridging Program and English for Academic Program (42.1%); as a separate or additional OHS workshop (37.6%); and as part of the normal curriculum inside the Schools and Faculties (20.3%)

#### **4.4.2 Factors associated with international students' health and safety and interference with study (Bivariate analysis)**

A bivariate analysis was carried out to investigate the impacts of having a paid job while studying, together with factors associated with those impacts. There were 21 independent variables that had been assessed in association with students' health and safety issues (injury experience and stress) and interference with study (tiredness, timetable clash and failure to submit assignment/task on time).

Table 4.2 indicates there was a positive association between injury experience and being a second year student with an odds ratio (OR) of 3.06, 95% confidence interval (CI) 1.27-7.35; having a perception of unfair wages, with OR of 2.71, 95%CI 1.45-5.06; working 20 hours or more per week, with OR of 2.57, 95% CI 1.25-5.28; and being less confident in OHS issues, with OR 2.61, 95%CI 1.40-4.88. Interestingly, being a new worker (less than one year working experience) had a negative association with injury experience, with OR 0.52, 95%CI 0.27-0.99.

Table 4.2. Bivariate and multivariate analysis; Factors associated with international students' health and safety and interferences with study

| Independent variables               | Health and Safety |            |          |            |            |            |          |           | Interferences with study |            |          |            |                 |            |          |           |                                   |            |          |            |  |
|-------------------------------------|-------------------|------------|----------|------------|------------|------------|----------|-----------|--------------------------|------------|----------|------------|-----------------|------------|----------|-----------|-----------------------------------|------------|----------|------------|--|
|                                     | Injury experience |            |          |            | Stress     |            |          |           | Tiredness                |            |          |            | Timetable clash |            |          |           | Failure submit assignment on time |            |          |            |  |
|                                     | Unadjusted        |            | adjusted |            | Unadjusted |            | adjusted |           | Unadjusted               |            | adjusted |            | Unadjusted      |            | adjusted |           | Unadjusted                        |            | adjusted |            |  |
|                                     | OR                | 95% CI     | OR       | 95% CI     | OR         | 95% CI     | OR       | 95% CI    | OR                       | 95% CI     | OR       | 95% CI     | OR              | 95% CI     | OR       | 95% CI    | OR                                | 95% CI     | OR       | 95% CI     |  |
| Students' demographics              |                   |            |          |            |            |            |          |           |                          |            |          |            |                 |            |          |           |                                   |            |          |            |  |
| Age (>20)                           | 1.87              | 0.24-14.43 |          |            | 1.49       | 0.22-10.15 |          |           | 1.46                     | 0.55-3.91  |          |            | 1.57            | 0.44-5.56  |          |           | 1.6                               | 0.21-12.44 |          |            |  |
| Gender (being female)               | 0.97              | 0.53-1.76  |          |            | 2.52*      | 1.07-6.00* | 1.09     | 0.73-1.62 | 1.17                     | 0.81-1.68  |          |            | 0.72            | 0.47-1.09  |          |           | 0.88                              | 0.47-1.67  |          |            |  |
| Marital status (married)            | 0.88              | 0.39-1.97  |          |            | 2.04*      | 1.17-3.58* | 0.88     | 0.37-2.07 | 0.76                     | 0.48-1.22  |          |            | 0.49*           | 0.26-0.92* | 0.56     | 0.28-1.11 | 0.45                              | 0.16-1.28  |          |            |  |
| Have children                       | 1.13              | 0.46-2.79  |          |            | 2.28*      | 1.11-4.67* | 0.69     | 0.23-2.06 | 1.03                     | 0.58-1.83  |          |            | 0.50            | 0.23-1.09  |          |           | 0.37                              | 0.09-1.56  |          |            |  |
| Have family members                 | 0.83              | 0.39-1.77  |          |            | 0.78       | 0.26-2.35  |          |           | 1.01                     | 0.65-1.58  |          |            | 0.64            | 0.37-1.11  |          |           | 0.59                              | 0.24-1.43  |          |            |  |
| Academic backgrounds                |                   |            |          |            |            |            |          |           |                          |            |          |            |                 |            |          |           |                                   |            |          |            |  |
| Faculty:                            |                   |            |          |            |            |            |          |           |                          |            |          |            |                 |            |          |           |                                   |            |          |            |  |
| Engineering, computer & mathematics | 1.00              |            |          |            | 1.00       |            |          |           | 1.00                     |            |          |            | 1.00            |            |          |           | 1.00                              |            |          |            |  |
| Health sciences                     | 2.27              | 0.94-5.49  |          |            | 0.98       | 0.60-1.59  |          |           | 1.28                     | 0.81-2.03  |          |            | 0.77            | 0.46-1.29  |          |           | 0.93                              | 0.44-1.97  |          |            |  |
| Humanities and Social Sciences      | 2.85              | 0.65-12.61 |          |            | 0.70       | 0.36-1.37  |          |           | 0.58                     | 0.30-1.15  |          |            | 1.22            | 0.55-2.74  |          |           | 1.48                              | 0.42-5.27  |          |            |  |
| Sciences                            | 0.75              | 0.28-1.98  |          |            | 1.23       | 0.58-2.64  |          |           | 0.64                     | 0.32-1.30  |          |            | 1.05            | 0.46-2.38  |          |           | 0.99                              | 0.26-1.89  |          |            |  |
| The Professions                     | 0.79              | 0.36-1.72  |          |            | 1.09       | 0.61-1.95  |          |           | 1.23                     | 0.72-2.11  |          |            | 0.96            | 0.53-1.87  |          |           | 0.91                              | 0.38-2.19  |          |            |  |
| Year of study:                      |                   |            |          |            |            |            |          |           |                          |            |          |            |                 |            |          |           |                                   |            |          |            |  |
| 1st year                            | 1.00              |            |          |            | 1.00       |            |          |           | 1.00                     |            |          |            | 1.00            |            |          |           | 1.00                              |            |          |            |  |
| 2nd year                            | 3.06*             | 1.27-7.35* | 2.69*    | 1.04-6.96* | 1.70       | 0.95-3.04  |          |           | 1.8*                     | 1.02-3.18* | 1.92     | 0.99-3.75  | 1.05            | 0.54-2.03  |          |           | 1.23                              | 0.46-3.26  |          |            |  |
| 3rd year                            | 1.78              | 0.82-3.90  |          |            | 1.45       | 0.82-2.57  |          |           | 1.46                     | 0.83-2.57  |          |            | 0.69            | 0.36-1.31  |          |           | 1.18                              | 0.45-3.08  |          |            |  |
| 4th year                            | 2.09              | 0.81-5.36  |          |            | 1.42       | 0.74-2.72  |          |           | 1.63                     | 0.87-3.07  |          |            | 1.21            | 0.57-2.60  |          |           | 0.8                               | 0.29-2.21  |          |            |  |
| Study program:                      |                   |            |          |            |            |            |          |           |                          |            |          |            |                 |            |          |           |                                   |            |          |            |  |
| Undergraduate                       | 1.00              |            |          |            | 1.00       |            |          |           | 1.00                     |            |          |            | 1.00            |            |          |           | 1.00                              |            |          |            |  |
| Study abroad or exchange program    | 0.91              | 0.32-2.58  |          |            | 0.29*      | 0.13-0.66* | 1.06     | 0.67-1.67 | 0.35*                    | 0.18-0.67* | 0.45*    | 0.22-0.91* | 0.60            | 0.27-1.33  |          |           | 1.10                              | 0.83-149   |          |            |  |
| Master                              | 1.57              | 0.36-6.92  |          |            | 0.30*      | 0.12-0.78* | 2.38     | 0.93-6.11 | 0.57                     | 0.26-1.27  |          |            | 0.89            | 0.32-2.46  |          |           | 0.85                              | 0.77-1.88  |          |            |  |
| PhD                                 | 0.73              | 0.26-2.01  |          |            | 0.34*      | 0.15-0.75* | 0.93     | 0.48-1.84 | 0.41*                    | 0.22-0.78* | 0.47*    | 0.23-0.97* | 0.47            | 0.22-1.02  |          |           | 0.99                              | 0.01-1.91  |          |            |  |
| Financial support:                  |                   |            |          |            |            |            |          |           |                          |            |          |            |                 |            |          |           |                                   |            |          |            |  |
| Private                             | 1.00              |            |          |            | 1.00       |            |          |           | 1.00                     |            |          |            | 1.00            |            |          |           | 1.00                              |            |          |            |  |
| Partial scholarship                 | 1.57              | 0.74-3.36  |          |            | 1.93*      | 1.18-3.16* | 1.26     | 0.68-2.32 | 1.39                     | 0.91-2.15  |          |            | 1.98*           | 1.14-3.43* | 0.70     | 0.38-1.28 | 1.26                              | 0.58-2.73  |          |            |  |
| Full scholarship                    | 0.72              | 0.22-1.84  |          |            | 1.68       | 0.73-3.87  |          |           | 1.56                     | 0.74-3.28  |          |            | 2.73            | 0.93-8.02  |          |           | 3.29                              | 0.44-25.01 |          |            |  |
| Working experiences                 |                   |            |          |            |            |            |          |           |                          |            |          |            |                 |            |          |           |                                   |            |          |            |  |
| Job status (casual/seasonal)        | 0.87              | 0.48-1.60  |          |            | 0.99       | 0.43-2.33  |          |           | 0.89                     | 0.62-1.28  |          |            | 0.69            | 0.45-1.07  |          |           | 0.47*                             | 0.23-0.93* | 0.47*    | 0.23-0.93* |  |
| Number of Job (more than 1)         | 1.28              | 0.55-3.02  |          |            | 0.70       | 0.24-2.07  |          |           | 1.37                     | 0.78-2.41  |          |            | 1.12            | 0.59-2.11  |          |           | 0.75                              | 0.26-2.20  |          |            |  |
| Sector of industry:                 |                   |            |          |            |            |            |          |           |                          |            |          |            |                 |            |          |           |                                   |            |          |            |  |
| Restaurant                          | 1.00              |            |          |            | 1.00       |            |          |           | 1.00                     |            |          |            | 1.00            |            |          |           | 1.00                              |            |          |            |  |
| Supermarket/grocery/ shop           | 0.51              | 0.12-2.26  |          |            | 0.64       | 0.28-1.49  |          |           | 0.62                     | 0.29-1.31  |          |            | 0.81            | 0.34-1.96  |          |           | 0.64                              | 0.14-2.87  |          |            |  |
| Cleaning                            | 0.64              | 0.14-3.04  |          |            | 0.53       | 0.22-1.28  |          |           | 0.79                     | 0.36-1.74  |          |            | 0.74            | 0.29-1.87  |          |           | 1.04                              | 0.21-5.27  |          |            |  |
| Agriculture                         | 0.52              | 0.10-2.58  |          |            | 0.83       | 0.32-2.15  |          |           | 0.41*                    | 0.18-0.96* | 0.53     | 0.22-1.32  | 0.87            | 0.32-2.36  |          |           | 0.36                              | 0.07-1.72  |          |            |  |
| Perception of wages (not fair)      | 2.71*             | 1.45-5.06* | 2.42*    | 1.24-4.71* | 1.30       | 0.88-1.92  |          |           | 1.89*                    | 1.31-2.75* | 1.64*    | 1.10-2.46* | 1.63*           | 1.07-2.48* | 1.46     | 0.94-2.25 | 1.90                              | 0.99-3.60  |          |            |  |

|                               |       |            |       |            |      |           |  |  |       |            |       |            |       |            |      |           |      |            |  |  |
|-------------------------------|-------|------------|-------|------------|------|-----------|--|--|-------|------------|-------|------------|-------|------------|------|-----------|------|------------|--|--|
| Rate of pay (16 or less)      | 1.51  | 0.81-2.80  |       |            | 0.81 | 0.32-2.10 |  |  | 1.25  | 0.87-1.81  |       |            | 1.41  | 0.92-2.17  |      |           | 1.06 | 0.56-2.02  |  |  |
| Working hours (20 or more)    | 2.57* | 1.25-5.28* | 2.20* | 1.03-4.71* | 0.52 | 0.15-1.79 |  |  | 1.35  | 0.78-2.33  |       |            | 1.92* | 1.08-3.41* | 1.79 | 0.99-3.23 | 1.40 | 0.59-3.31  |  |  |
| Working condition (outdoor)   | 0.91  | 0.31-2.70  |       |            | 0.74 | 0.30-1.83 |  |  | 0.89  | 0.45-1.77  |       |            | 2.16  | 0.82-5.69  |      |           | 3.69 | 0.49-27.63 |  |  |
| New worker (working < 1 year) | 0.52* | 0.27-0.99* | 0.56  | 0.27-1.15  | 0.71 | 0.14-3.54 |  |  | 0.83  | 0.53-1.28  |       |            | 0.96  | 0.58-1.59  |      |           | 1.21 | 0.54-2.70  |  |  |
| Not working under supervision | 0.93  | 0.48-1.80  |       |            | 0.73 | 0.28-1.89 |  |  | 0.74  | 0.50-1.10  |       |            | 0.83  | 0.52-1.32  |      |           | 0.79 | 0.39-1.63  |  |  |
| Ohs training experiences      |       |            |       |            |      |           |  |  |       |            |       |            |       |            |      |           |      |            |  |  |
| No OHS training               | 1.44  | 0.76-2.72  |       |            | 0.96 | 0.64-1.42 |  |  | 1.13  | 0.78-1.64  |       |            | 0.94  | 0.61-1.45  |      |           | 1.45 | 0.73-2.87  |  |  |
| Not assessed training         | 2.42  | 0.83-7.01  |       |            | 0.69 | 0.29-1.67 |  |  | 1.42  | 0.76-2.64  |       |            | 1.06  | 0.52-2.13  |      |           | 2.44 | 0.78-7.62  |  |  |
| Less confident in OHS issues  | 2.61* | 1.40-4.88* | 2.17* | 1.13-4.16* | 1.56 | 0.64-3.81 |  |  | 2.05* | 1.41-2.99* | 1.72* | 1.16-2.55* | 1.48  | 0.97-2.26  |      |           | 1.38 | 0.73-2.61  |  |  |

\*=Statistically significant,  $P < 0.05$



Statistically significant for bivariate analysis



Statistically significant for multivariate analysis

Another outcome variable of students' health and safety was stress. A significant association was found between stress with being a female student, with OR 2.52, 95%CI 1.07-6.00; being a married student, with OR 2.04, 95%CI 1.17-3.58; having children, with OR 2.28, 95%CI 1.11-4.67; and being a partial scholarship student, with OR 1.93, 95%CI 1.18-3.16. However, being a student of a study abroad or exchange program (OR 0.29, 95%CI 0.13-0.66), master (OR 0.30, 95%CI 0.12-0.78) and PhD (OR 0.34, 95%CI 0.15-0.75) had a negative association with stress in comparison with being an undergraduate student.

When it comes to interference with study, tiredness was the first outcome variable assessed in this bivariate analysis. Being a second year student, having a perception of unfair wages and being less confident in OHS issues had a positive correlation with tiredness (OR 1.8, 95%CI 1.02-3.18, OR 1.89 95%CI 1.31-2.75, and OR 2.05 95%CI 1.41-2.99, respectively). Nevertheless, there are some factors that had a negative association with tiredness, such as being a study abroad or exchange program student, being a PhD student and being an employee in the agricultural sector.

The second variable being assessed of interference with study was timetable clash. A significant association was found between timetable clash and being a partial scholarship student, with OR 1.98, 95%CI 1.14-3.43; having a perception of unfair wages, with OR 1.63, 95%CI 1.07-2.48; and working 20 hours or more per week, with OR 1.92, 95%CI 1.08-3.41. Interestingly, being a married student had a negative correlation with timetable clash, with OR 0.49, 95%CI 0.26-0.92.

The last outcome variable was failure to submit assignments/tasks on time. There was a negative association (OR 0.47, 95%CI 0.23-0.93) between failure to

submit assignment/task on time with being a casual or seasonal worker (in comparison to being a part-time worker).

#### **4.4.3 Important predictive factors (Multivariate analysis)**

For the purpose of the multivariate analysis, all the predictor variables found to be significant in the bivariate analysis were included in a logistic regression model generating adjusted odds ratios (AOR). The adjusted odds ratios were used to identify important predictors of the outcome variables.

From Table 4.2, it can be seen that there was a significant association between international students' injury experiences and being a second year student (AOR 2.69, 95%CI 1.04-6.96); having a perception of unfair wages (AOR 2.42, 95%CI 1.24-4.71); working 20 hours or more per week (AOR 2.20, 95%CI 1.03-4.71) and being less confident about OHS issues (AOR 2.17, 95%CI 1.13-4.16).

Furthermore, a significant association also was found between tiredness and a perception of unfair wages and being less confident in OHS issues, with AOR 1.64, 95% CI 1.10-2.46 and AOR 1.72, 95%CI 1.16-2.55, respectively. But a negative correlation was identified between tiredness and being a study abroad and exchange student, and with being a PhD student compared to being an undergraduate student. A statistically significant negative association also was found between failure to submit assignments/tasks on time and with being a casual or seasonal worker (AOR 0.47, 95%CI 0.23-0.93).

#### 4.4.4 Summary of the study findings

This study explores broad aspects of international students' working experiences, health and safety issues and work-study interference.

In answer to research question 4, the study found that most international students worked in part-time jobs (55.3%), casual jobs (39.2%) and seasonal employment (5.4%). Regarding industry sector, most of them worked in restaurants (42.1%), supermarkets or grocery stores (21.1%) and in cleaning jobs (12.6%).

More than 60% of international students did not receive any OHS training before commencing the work, and more than 10% of the total survey respondents reported that they had experienced an injury whilst working in Australia. In addition, 43.8% of that 10% mentioned that they had experienced an injury after completing OHS training.

More than 70% of respondents felt that work activities interfered with their study; and almost 80% of that 70% claimed that tiredness was the main form of work-study interference.

In answer to research question 5, the following factors predicted injury experiences among international student employees: Working 20 hours or more per week, Adjusted Odds Ratio (AOR) = 2.20 (CI: 1.03-4.71); being less confident in discussing OHS issues, AOR = 2.17 (CI: 1.13-4.16); perceiving they had unfair wages or feeling exploited, AOR = 2.42 (CI: 1.24-4.71); and being a second year student, AOR = 2.69 (CI: 1.04-6.96).

Turning to work-study interference, the study found that tiredness, timetable clashes and failure to submit assignments on time were the three main ways that work interfered with study. The following were predictive factors for reporting work study interference: Working 20 hours or more, OR=1.91 (CI: 1.08-3.41); perceiving that wages are unfair, OR=1.89 (CI: 1.31-2.75), being a second year student, OR= 1.80 (CI: 1.02-3.18), being a partial scholarship student, OR=1.98 (CI: 1.14-3.43), and being less confident in discussing OHS issues, OR=2.05 (CI: 1.41-2.99).

#### **4.5 Discussion**

The ultimate goal of conducting this research is to improve workplace health and safety and to prevent injury among international student employees. Hence, it is important to explore international students' working experiences and to identify the predictive factors for health and safety issues (namely, injury experiences and stress). Simultaneously, it is essential also to investigate what work-related factors interfere with international students' study, since generally the main reason for international students coming to Australia is to obtain a better education.

This cross-sectional study is the first quantitative study to focus on international students as a sub-group of young workers in Australia. The study explored not only international students' working experiences, but also their occupational injury experiences together with their predictive factors. Furthermore, this study also examines international students' paid employment can interfere with their study. A small part of the survey also described international students' perspectives on the role of the University in teaching OHS education.



Several quantitative and qualitative studies have been conducted exploring students' and international students' vulnerability in the workplace (McDonald et al., 2007; Nyland et al., 2009; Anderson et al., 2011a). Furthermore, a quantitative study done in the USA was the first to provide information related to occupational injuries among university student employees (Ou and Thygerson, 2012).

However, work-related injuries among international student workers have not been investigated in the Australian workplace context. It is generally considered that international students may be at even greater risk of occupational injury and even more vulnerable compared to their domestic peers due to facing difficulties with cultural adjustment and language constraints, lack of work legal rights, undertaking employment in poor working conditions and in many cases having insufficient non-wage income support (Nyland et al., 2009; Anderson et al., 2011b).

#### **4.5.1 Reasons to work and positive ramifications**

Most international students in Australia are involved in the workplace (Nyland et al., 2009). The results from this study demonstrated that to get extra money, to pay living costs and to supplement living allowances were the three main reasons for international students being involved in paid work in Australia. However, about 30% of respondents revealed that they also wanted to have working experiences in order to improve their English and to understand Australian culture.

This finding is consistent with (Manthei and Gilmore, 2005) who maintained that having paid employment does not always have negative ramifications nor does it have detrimental effects on academic performance among students, particularly when students can manage their working hours to suit their course load. Similar findings were reported by McInnis and Hartley (2002) and

(Pascarella et al., 1998) who claimed that work at a modest level actually might improve students' academic success and learning process and enhance students' employability and organisation skills.

Hence, this study recommends that, rather than resolving whether international students should work or not, it is important to provide evidence to international students and University administrators with regard to how many hours of paid employment per week students could manage successfully with their course load. The next sections explore information related to international students' working experiences and provide evidence regarding how many hours of work per week can be tolerated before it starts to have a detrimental effect on international students' academic performance.

#### **4.5.2 International students' working experiences**

The results of the study reveal that just over half of respondents were women (53%) in the group of age more than 20 years old (older young workers). This finding is consistent with study conducted in USA by Ou and Thygeson (2012) which found that the majority of study participants were female students (60%) with the age average of all students was 20.7 years.

Furthermore, this study found that most international students worked in a part-time job (55.3%) compared to a casual (39.2%) and a seasonal employment (5.4%). Regarding sector of industry, most of the respondents worked in hospitality sector, supermarket, and cleaning industry. And, more than 90% of them worked indoors. In addition, considering rate of pay, more than 50% of them were paid under the wage standard of hourly basis which was 16.87 for wage order 2014. The results from this study are consistent with Nyland et al. (2009) and Anderson et al.

(2011a) who maintained that a large amount of international students work in the hospitality sector and other sectors that are commonly not wanted by local employees. They tend to be frequently undertaking low-status occupations, precarious work and working in substandard working conditions. In addition, they are susceptible to exploitation, since in many cases these workers are facing financial problems and lack a comprehensive understanding of occupational health and safety systems in Australia (Collie and Sampson, 2015). However, this study found that a small amount of international students (13%) worked 20 hours or more per week. This finding was not consistent with Anderson et al.'s (2006) study, which revealed that many of international student workers breach their visa conditions or “bend the rules” for working over 20 hours a week in illegal employment sector. It is still not clear the reason of the difference results between the UK study and this Australian study and warrants further investigation.

#### **4.5.3 No OHS training or yes but yet ineffective**

The university's educational programs have the potential to foster safety knowledge among students (Lerman et al., 1998; Linker et al., 2005). However, from this evidence, it cannot be expected that simply providing safety knowledge will straight forwardly create safe behaviour and reduce injuries in the workplace (Pisaniello et al., 2013).

The findings of this chapter provide important insights into the effectiveness of international students' OHS training experiences. Provision of OHS induction training is an OHS legal requirement in each territory and state in Australia. However, an unexpected finding revealed in this study is that more than 60% of the

participants claimed that they did not receive any OHS training before commencing work (see Figure 4.22 and Figure 4.23).

More than 50% of the participants claimed that they had obtained some OHS training provided by the University and about 40% of them had OHS training experiences as part of employment. Furthermore, more than 80% of this subgroup mentioned that the training provided was about the right amount of information. Unfortunately, this study highlighted that more than 40% of international students experienced injury after having OHS training, indicating that the training may well have been inadequate. Even though health and safety hazards exist in every workplace, this study showed that more than 50% of respondents mentioned that they did not perceive any hazards/risks in their own workplace (see Figure 4.30). This failure to appreciate the risks they face at work suggests the importance of providing an effective OHS training for international student workers.

Furthermore, the results from bivariate analyses (Table 4.2) suggest that having OHS training experiences did not statistically significantly reduce the risk of injury among international student employees. This is consistent with Zierold and Anderson (2006) who claimed that safety training was not significantly associated with severe injuries among young workers.

These findings provide evidence that questions the relevance of both university and workplace OHS training; neither seem to be translated into safe workplace behaviour among international students.

#### **4.5.4 Injury experiences**

As health and safety hazards exist in every workplace, it is important to uncover international students' perceptions of the existence of health and safety

hazards in their own workplaces. The findings reveal that about 50% of respondents perceived that there were no risks relating to the jobs they performed in the workplace, while some others recognised that their jobs were stressful jobs, and some understood the risks associated with lifting and/or repetitive movement in their jobs.

#### **4.5.4.1 *Kinds of injuries***

Exploring injury experiences and identifying risk factors for work-related injuries among international students are necessary if one is to develop effective intervention programs for injury prevention. The findings demonstrate that being cut (n=33, 68.8%) and burnt (n=18, 37.5%) were two most common injuries among the subgroup of students who had experienced injury. This is to be expected, since most of participants worked in the hospitality sector and the retail trade (see Figure 4.14). This is consistent with Brosnan and Loudoun (2006) who maintained that more than half of the teenage Australian labour force was employed in retail, accommodation, cafés and restaurants. Processing, packing, cooking and serving are the potential hazards in the food industry that can lead to injury if they are not well managed. Other kinds of injuries revealed by the participants were strains, and slips and falls, with 8 participants (16.7%), respectively.

This finding is consistent with the statistical review of the workers' compensation dataset from SafeWork SA (2004-2013) data in Chapter 2 of this study, which reveals that working at night will increase by 30% the likelihood of young workers experiencing serious injury. Some literature suggests that working at night elevates the risk of injury and loss of productivity (Wagstaff and Lie, 2011; Folkard and Tucker, 2003).

#### ***4.5.4.2 The risk factors of injury experiences and work-study interference***

Work-related injuries have not been studied in relation to how they might interfere with study for international students. This cross-sectional study investigates what predictive factors are likely to interfere with students' health and safety because of their paid employment. International students' demographic information, academic backgrounds, working experiences and OHS training experiences were assessed in order to identify their association with two outcome variables: international students' health and safety (injury experiences and stress); and interference with study (tiredness, timetable clash and failure to submit assignment/task on time).

##### ***4.5.4.2.1 Predictive factors of international students' injury experiences***

The results from bivariate analysis demonstrated that being a second year student, perception of unfair wages, working 20 hours or more per week, being a new worker (less than 1 year job tenure), and being less confident about OHS issues were found as risk factors of injury experiences among international student employees. However, when it comes to a multivariate analysis, only four independent variables were found to be statistically significantly associated with students' injury experiences: being a second year student (AOR 2.69); perceived unfair wages (AOR 2.42); working 20 hours or more (AOR 2.20) and being less confident about OHS issues (AOR 2.17).

The finding from this study demonstrated that there was a positive association between being a second year student and injury experience. There appear to be no comparable findings in the literature, specific to international students in terms of the relationship between being a second year student and injury

experience. But, according to Gohn et al. (2001), the main factors that may influence attrition of second year students included adjustment to stress, grade satisfaction, time management and financial management.

Turning to the international students' rates of pay using the Australian legal minimum hourly rate in 2014 as a standard (\$16.87), the study revealed that there was not a significant association between international students who were underpaid and injury experience (see Table 4.2). However, when it comes to students' perception about wage fairness, this study presented the important finding that those international students who perceived they receive unfair wages in the workplace were at greater risk of experiencing injuries.

Focusing on the longer working hours, the finding from this study was consistent with the US research about occupational injuries among university students which revealed that heavy workload was a risk factor for student employees experiencing one or more injuries in their workplaces (Ou and Thygeson, 2012). Furthermore, similar to Blair et al. (2004), the finding of the current study highlights the importance of focusing OHS education on beliefs about safety if that education is to lead to safe behaviour.

Moving onto the students' confidence about their own understanding of OHS issues, a previous study suggested that there was strong association between safety training and the skill and confidence of incoming university students (both local and international) in South Australia (Thamrin et al., 2010). However, by looking solely at international students, it is now evident that students who are less confident about OHS issues are more likely to experience injury in the workplace (AOR 2.17); further, struggling with tiredness as a result of working interferes with

study (AOR 1.72). These findings call for more attention on international students' vulnerability in the Australian workplace.

Some research has been conducted in Australia, New Zealand and UK indicating that international students are more vulnerable compared to domestic students (Nyland et al., 2010; Anderson et al., 2011a; Anderson et al., 2006; UKCOSA: The Council for International Education, 2004). In line with Blair et al., the current study strengthens calls for OHS education and training to be more focussed on influencing safety beliefs (Blair et al., 2004). Additionally, this research supports claims of a need for a better understanding of how school- and university-based education can complement industry roles in linking safety knowledge with safe behaviour (Pisaniello et al., 2013). The information related to international students' perspectives on this issue is explored in the next chapter.

Turning to stress as an outcome variable, the findings from this study have revealed that the likelihood of international students experiencing stress was higher for females, married students, and those who have children. Furthermore, being an international student who holds a partial scholarship also became a predictive factor of stress compared to being a privately financed student.

However, when it comes to their study program, the results of this study revealed that being a student in study abroad or exchange program, master and PhD have negative association with stress compared to being a student in undergraduate program as a reference group (see Table 4.2). Ou and Thygerson (2012) suggested that a heavy workload outside of study impacted on students' stress levels; that study demonstrated that providing information about how to handle the workload,



teaching students of safety standards might decrease injuries among student employees in the workplace.

#### *4.5.4.2.2 Predictive factors of international students' work-study interference*

Despite the positive effects for international students in Australia of having paid employment such as improving language ability and cultural adjustment, it is important also to assess the negative ramifications of this issue. The impacts of paid employment on academic performance have been explored through many studies (James et al., 2007; De Zoysa and Rudkin, 2007; Nonis and Hudson, 2006; Vickers et al., 2003). However, to date there is a scarcity of research that explores the negative impacts of paid work on the academic performance of international students in Australia.

Tiredness, timetable clash and failure to submit assignments/tasks on time were three dimensions of interference with study that were assessed in this cross-sectional study. Bivariate and multivariate analysis was conducted to identify the risk factors. The results from bivariate analysis demonstrated that being a second year student, a perception of unfair wages or being less confident about OHS issues can be taken into account as predictive factors of tiredness among international students. Nevertheless, a negative association was found between being a study abroad or exchange program student, being a PhD student, or working in the agricultural sector of industry and tiredness (see Table 4.2).

Turning to international students' timetable clash as an outcome variable due to having paid employment, the results from this study presented that being a partial scholarship student holder, a perception of unfair wages, and working 20 hours or more per week were risk factors for those likely to experience a timetable

clash. This is consistent with Vickers et al. (2003) who found that the likelihood of students who work 20 hours or more dropping out of tertiary education was between 160 to 200 % greater than students who work less than 20 hours per week.

Another negative impact of having a paid job was failure to submit assignments/tasks on time. The finding demonstrated that being a casual or seasonal worker was in fact a protective factor for failure to submit assignments on time in comparison with being a part-time worker. The finding is consistent with James et al. (2007) whose survey revealed that more than 40% of 18,954 Australian students who were engaged in a part-time job believed that working had adversely impacted on their academic performance. It can be inferred from this finding that international students who are engaged in part time jobs with longer working hours will be more likely to experience a conflict between working and studying.

#### **4.6 Strengths and limitations**

This online survey had three important advantages in terms of its research method: it could reach all international students at the university; anonymity of respondents could be maintained; and the electronic format allowed for accurate analysis of the data. Firstly, the survey invitation was distributed by the ISC, hence it can be assumed that all international students within the University were invited to join the survey regardless of their faculties, schools, or disciplines. As a result, a relatively large number of students took part in this survey: 719 participants who generated 466 complete responses. Secondly, the survey participants (international students) may have been more willing to share their personal information since they were not disclosing it in person; the presence of an interviewer can influence the responses of the participants in some cases (Gingery, 2011). Lastly, the survey

participants input their own data, which was automatically stored electronically after students had completed their responses. Thus, the data were very well documented and the analysis could be streamlined and was available immediately.

However, this study also has some limitations. The survey was conducted only in one university and the survey method employed one point of observation (that is, it was a cross-sectional study) where data on each participant was recorded once only. As a result, the associations between risk factors and outcome variables are not as strong as a cohort study could provide (Sedgwick, 2014). In addition, it was difficult to count the sample size from the real population based on email addresses, one disadvantage from the online survey method (Sedgwick, 2014).

#### **4.7 Conclusions**

This quantitative study using an online survey has demonstrated that many of the participants experienced injury even after completing OHS training. Moreover, the study has identified the predictive factors of international students' injury experiences, and also demonstrates how work can interfere with their university study. For these reasons, it is necessary to understand the role of the university as an education provider in OHS awareness raising and education. The next chapter presents the results of focus group discussions with international students to explore this aspect of the subject.

## Chapter 5

### INTERNATIONAL STUDENTS' PERSPECTIVE ON THE ROLE OF THE UNIVERSITY IN OHS AWARENESS AND EDUCATION

# **CHAPTER 5. INTERNATIONAL STUDENTS’ PERSPECTIVE ON THE ROLE OF THE UNIVERSITY IN OHS AWARENESS AND EDUCATION**

*“There is no neutrality. There is only greater or less awareness of one’s biases” (Rose 1985).*

## **5.1 Introduction**

It is commonly thought that if appropriate OHS education and training is integrated into university curricula, students will be better prepared for work, during and after completion of their formal program. It is also widely thought that safety awareness can be inculcated as a core value (SafeWork SA, 2013), especially if safety concepts are introduced at an early age. However, it is important to gain perspectives from students actually working during study, and there is a very limited literature in this regard. This chapter presents the results from three focus group discussions with international students at the University of Adelaide. The focus groups explored students’ perspectives on OHS education and the role of the university in OHS awareness raising and in providing OHS education. Note that in presenting the qualitative data, the author has chosen to write in the first person.

## **5.2 Background to qualitative study**

### **5.2.1 Being an insider researcher**

I am international student who has a part time job; hence, I am a member of the population that I am studying. I am insider researcher or practitioner research, since I have a close connection and involvement with the research setting and as a member of the group that I am studying (Robson, 2002).

As Unluer (2012) points out, researchers need to clarify their roles in relation to their research topics and subjects in order to make their research credible when using a qualitative approach. Qualitative researchers must also reflect on power and trust issues associated with their projects and participants (Hall and Callery, 2001). Therefore, I intentionally revealed my insider position to participants before I commenced the focus group discussions to assure them that we are “at the same boat”.

There is a tendency for participants to accept insider research processes relatively completely and rapidly, and as a result be more open. Typically, the data gathered has greater depth (Dwyer and Buckle, 2009). A further benefit is that insider researchers usually have a better comprehension of cultural issues, can facilitate natural social interactions, and can quickly develop an intimacy with participants, enabling them to judge the truthfulness of data gathered (Bonner and Tolhurst, 2002).

Despite the advantages of the insider researcher, there can be significant issues related to the validity of the resultant data. Loss of objectivity due to over familiarity of the topic being studied can unconsciously produce disproportionate assumptions and biased interpretations (Herrmann, 1989; Rooney, 2005).

A further challenge is that insider researcher frequently struggles to keep a balance between being a member of the group and simultaneously a researcher (DeLyser 2001). Thus, as will be clear later, I have provided supporting explanations about my position as the researcher.

My role as an international working student is totally different from my role as a researcher. I should clarify that, even though I have had social contact with some of the participants, we did not have a close personal relation with them except that we were all international students. We work in a various sectors of industry, so the participants have different experiences of working in Australia. I am fully aware that although I am an insider researcher, my own experience cannot capture the entire range of experiences of the group members (Foster, 1994).

To avoid the possible bias on data collection and analysis from having a duality of roles, I conducted data collection far away from my own perspective by obtaining the help of an external professional advisor who has strong background and experiences as an anthropologist in conducting qualitative research (Rooney, 2005).

Before data collection, we had intensive and regular meetings in order to share a mutual understanding about the research questions and research objectives, including the technical and practical aspects of the research. This advisor and I together became the moderators of the focus groups, since in one focus group there is the possibility of more than one facilitator moderating the discussion (Liamputtong, 2011).

### **5.2.2 The birth of research questions**

I started my PhD program with a quantitative research background from my previous degrees of Bachelor in Public Health and a double Master degree in Epidemiology and Occupational Health and Safety. I was very confident that my competence in quantitative approaches would meet all tenets of conducting good research.

At the outset I did not take into consideration other methodologies that use stories as evidence. However, after discussions with my supervisors, peers, OHS experts and stakeholders, I decided it would be improper to research this topic without knowing the level of international students' understanding of and perspectives on OHS education and the role of the university in teaching OHS.

Thus, the following research questions found their place in this research:

*RQ6:* What are international students' perspectives on OHS training and education?

*RQ7:* What are international students' views about the current practice of OHS education?

*RQ8:* In terms of workplace accident and injury prevention, what are international students' perspectives on the role of the university in OHS awareness raising and education?

Those questions could not be comprehensively answered using the quantitative methods that I was familiar with, and so I commenced my journey towards qualitative research.

## **5.3 Methods**

In this section, I present the overall research process which includes the development of the research questions followed by the details of the procedures relating to ethical issues, recruitment of participants, and data analysis.

### **5.3.1 Ethical considerations**

The research has taken all possible measures to ensure protection of the welfare and rights of the participants. Participants' well-being was the primary



consideration over the potential for generating beneficial knowledge through the research (Kvale and Brinkmann, 2009). Therefore, it was crucial to assure participants that their answers would be anonymous, that they would not be harmed through their involvement in the research and that they were free to withdraw at any time (Oliver, 2010). To address these issues, we first obtained ethical approval for this study from the University of Adelaide Human Research Ethics Committee No: HS-2013-045 for project title: International students as young migrant workers in South Australia - Role of the University in OHS awareness and education.

The information sheet and informed consent were sent to the participants who were interested in joining the focus group (Appendices 9 and 10). We also sought their permission to audio-record our focus group discussions, as these recordings would assist in the analysis. An electronic version of all information collected was stored in a password protected computer. Hard copies were kept in a locked filing cabinet to ensure confidentiality is maintained. This way, all information regarding recruitment of participants and related documents was kept confidential (Oliver, 2010).

In addition, participants were provided with the contact details of my doctoral supervisor and the relevant ethics committee liaison personnel in case they had any questions, concerns or complaints during the study. Each participant was provided with a \$30 Woolworths voucher to offset the cost of their participation (National Health and Medical Research Council, 2007).

### **5.3.2 Selection criteria**

To participate in the study, respondents had to be international students who have experience of working while studying in Australia and are in their second or third year of study.

### **5.3.3 Recruitment procedure**

The main objective of the recruitment procedure was to obtain a diverse range of international students to participate in the focus groups. Three different methods were applied for this purpose;

1. The participants were invited to join the focus group discussion through a flyer distributed via the noticeboards across faculties within the University of Adelaide.
2. The invitation was placed around the Central Student Hub at the University, as well as in the International Students Centre (ISC) office. Hence, students who come to the office or the join events conducted by ISC, such as morning tea in front of ISC office, were exposed to the information.
3. The flyer was also distributed through emails to international student association networks such as Indonesian, Malaysian, Vietnamese, and Chinese students.

All the invitations were sent out approximately one month before the date for conducting the focus groups.

#### **5.3.4 Developing Focus Group Schedule**

Students who were interested in joining the focus groups expressed their interest through email to the researcher, together with their time preferences.

In the first stage, after allowing about one month for the recruitment process, 22 participants indicated their willingness to join the groups. However, one of them declined to participate due to having a timetable clash with his/her part time work schedule. Hence, a total 21 students participated in the focus groups. Reminders of the date were sent to confirm participants' intention to attend the focus groups.

For practical reasons, the focus group was divided into 3 sessions where every session consisted of 7 participants. The focus group discussions were conducted in a central location and private room on 21<sup>st</sup>, 22<sup>nd</sup> and 24<sup>th</sup> of October 2013.

#### **5.3.5 Participants**

The discussions were conducted with international students across a wide range of industry sectors where they have or had part time job experiences. Considering the representativeness, the participants also consisted of students from different genders, degrees, home countries and faculties within the University of Adelaide.

#### **5.3.6 Data collection procedures**

Focus group techniques are commonly used in public health research (Willis et al., 2009). The discussions are conducted in order to help the researcher explore and obtain people's experience and views (Kitzinger, 1994). The ultimate objective of a focus group discussion is to obtain an understanding from a select group of

participants in relation to their perspectives, meanings and interpretations about any particular issue (Liamputtong, 2011).

The participants were invited to respond to a series of 8 semi-structured questions relating to their perceptions of OHS education, the current practices in raising health and safety awareness and provision of health and safety education, potential conflict between working and studying, and what the university should do to improve the OHS situation of international students in their workplaces (Appendix 11).

In advance of interviews, participants were reassured that their responses would be kept anonymous. Also they were told that their name, telephone contact number, email and all demographic data would not be used for any other purpose, nor would these details be disclosed when the summarised results were produced after the interviews.

The interviews were audio-recorded with participants' permission and telephone contact numbers for enquiries were provided to participants. Simultaneously, notes were made of the interviews to record all the processes in order to support the comprehensiveness of data collection. The duration of each focus group was about 1 to 1.5 hours depending on the responses from the participants.

### **5.3.7 Data analysis**

The overall process comprises several phases following Braun and Clark (2006): familiarisation with the data transcription; producing initial codes; finding, reviewing, defining and naming the themes; and producing the report.

The data from the focus groups were transcribed by professional transcribers [www.outscribetranscription.com.au](http://www.outscribetranscription.com.au). The reviewing and refining process took place at this stage (Braun and Clarke, 2006). Initially, the transcriber produced the first draft of data transcription that comprised all datasets from 3 sessions of focus groups. The data were reviewed and refined by re-reading and re-listening to the original audio tape and conducted some corrections that need to be made. Sections requiring corrections were sent back to the transcriber and as a result the final transcription was produced.

Then, the next stage was searching for recurring themes. Thematic analysis was used to identify themes, patterns and content (Miles and Huberman, 1994) with the assistance of NVivo software. The findings are presented according to the resulting thematic clusters.

## **5.4 Results**

The first section of results presents international students' reasons to get involved in the Australian workplace. This is important to provide a brief understanding about international students' motivations behind their working life.

Then, this section presents the general perspective of international students towards OHS education and how this perspective shapes their understanding of what a university should provide for improvement. The findings are grouped as: international students' perspectives on OHS education; the current practice of OHS education together with participants' OHS education and training experiences; and the relevancy of university OHS education to the workplace.

Finally, findings are presented on students' viewpoints about the OHS curriculum, their perspective about how concerned the University is about their OHS education and what the University should do to improve OHS education for international students.

#### **5.4.1 Reasons to work**

It was not surprising that the most highlighted reasons that emerged during the focus groups were high living costs in Australia, particularly for international students who have families living with them. However, some students also clarified that their reason to work is not only about money, but also provides an opportunity to practice and improve their English, to better understand Australian culture, to make friends and to gain work experience in Australia.

##### ***5.4.1.1 High living cost in Australia***

Most participants agreed that living in Australia is expensive compared to their home country. The following quotations support this:

“Because Australia’s like one of the most expensive countries in the world and even coming from London I come here and I’m poor suddenly [laughter], like it’s awful. And yeah, everyone’s in the same position, like we’re all trying to work in a way”. (AD, undergraduate student, casual gardener)

*“Well I knew it was going to be expensive, but I didn’t think it was going to be this expensive, yeah, so when you come, I don’t remember because you compared back to where you are coming from. Anyway, it is expensive; I think that’s why everyone of us looks for a part time job because there are just some things that you need to with extra work, yeah”. (JN, undergraduate student, worked in restaurant)*

*“But then, like, it’s quite expensive to live here, and I need to work, so it’s, yeah, it’s quite stressful even just thinking about it, like, prioritising and things. And yeah, I think the two do come into conflict quite a lot...Yeah”.* (TS, undergraduate student, worked in fruit shop)

#### **5.4.1.2 Family reasons**

International students who came to Australia with their family members explained that they needed to work to financially support their family life in this country. There is a tendency for international students who have family in Australia to be postgraduate students. This, of course, because such students are older. Relying on their scholarship solely may not be sufficient to afford their family expenses in Australia. Some participants expressed this as followed:

*“The reason I take the job is I need to survive because my scholarship’s just enough for myself, not for any family that I bring. My wife here. So I need to take job”.* (AM, master student, casual cleaner)

*“You can’t afford it. I mean, like, in my positions, I’m here with my two kids and wife. And my wife is not working, staying at home, because I want her to take care of my kids and kind of, well, a feeling that working is actually my responsibility to that, for my kids and yeah, think that. Because well, scholarship, it’s just not enough for living here. Well, enough for living, but not for, you know, your kids, yeah”.* (AR, PhD student, worked in pub)

*“It might be, but if you are living as an individual I think we can manage, but if a family it’s not possible”.* (IR, Master student, catalogue delivery)

*“The scholarships cannot afford our expenses. Yeah, it’s not enough to cover our expenses here. I have a family I have to work here because otherwise we cannot run a normal life here. For my case, not all the scholarship holders will get an access to the Centrelink, so that’s why I have to pay very expensive to send my daughter to the childcare, so that’s really high cost I mean for me. So*

*that's why I have to work to like sending my daughter go to the childcare". (DI, PhD student, part time cleaner)*

*"If I don't have a daughter maybe, but I need it because if I working so I need to send my daughter to the family day care and if family day care costs \$50.00 for a day so I have to work". (SF, master student, casual home cleaner)*

#### **5.4.1.3 Improving English**

Despite the necessity of earning money, some participants maintained that improving their English was the main reason to get involved in the Australian workplace, and they welcomed the opportunity of practicing conversation outside the classroom. The following quotations express this:

*"Because the environment where I work it actually builds my confidence in class to speak in front of people. Because I talk to the customers, and you know, like, just, sort of, basic conversations, but it can merge through, you know, like, real conversation, like, you have to use quite, how can I say?, quite complicated words, and then you have to be able to understand the customers. And after I work, I start, I gradually, like, started to understand more about the lecture, what the lecturer is saying, and yeah, it really, I think, depends on where you work as well". (BC, undergraduate student, waitress in Asian restaurant)*

*"When we working, actually, we, kind of, like, the worker has their own expression of words, so like, 'How's it going, mate?' like, yourself, man. So it's, like, then we can, like, learn, 'So that's how they communicate.' And that used, like, locally, and then like in the class, the, I did, like, myself, from Malaysia and Malaysian student, kind of, like, really not quite sure of what they are saying them self, like, expression. But we, as, like re-learn through our workplace, things like, kind of, completes our confidence and already know prior to, 'Okay. What they going to say,' so you know". (MH, undergraduate student, casual cleaner)*



#### **5.4.1.4 Understanding Australian culture and making friends**

Interestingly, some students claimed that their reasons to work were not only about the money, but also because they sought cultural adjustment and wanted to make friends with locals and people from other countries. The expression of those students is as follows:

*“Well even though I haven’t, like assume I have enough money I don’t need to worry about living expense and anything like that. I would still take a part time job. So I can have a better understanding about this community I live in, like I’m an international student, I want a little bit more culture emersion. So it’s not just about the money!”. (JN, undergraduate student, waitress in restaurant)*

*“Especially when it’s so hard to actually meet Australians at Uni, because as far as I know, like all of us international students only know international students... It’s just hard, so everyone’s here to make friends”. (AD, undergraduate student, casual gardener)*

*“I know Australian people. Because we’re all new here, making new friends from other countries”. (IS, undergraduate, tourist guide)*

#### **5.4.2 Conflict between working and academic performance**

When the students were asked about this issue, various responses appeared based on their personal experiences, workloads, working hours, and job flexibility. Some participants explained that having paid employment with long working hours, working night shifts and having a heavy workload had negative implications for their academic performance.

However, many participants argued that they can manage the balance of working and studying at the same time without having any work-study interference at all. Some participants even maintained that they still put their study as the most

important priority rather than work activities. This section juxtaposes the different points of view and experiences among the participants.

#### **5.4.2.1 Conflict exists**

The following quotations reveal information about students who experienced the negative impacts of working while studying in relation to their academic achievements. Tiredness, sleepiness, sickness and stress are the main problems that they had as a result of having job responsibilities outside their study.

*“Yeah. Last semester, I used to work, like, 38 hours per week. And 30 to 38 hours. Because I have some days gap between my classes, and yeah, I failed one subject. Yeah. You don’t have time to do your readings all that. That’s the worst thing that happened to me last semester. I didn’t have time to do my, to read my readings“.* (BC, undergraduate student, waitress in Asian restaurant)

*“Because I am doing it at night, so it is my sleeping time sometimes. Sometime and yeah, when the problem is, I have lecture or tutorial, I have to, I have to attend with sleepy, to be honest. And some time miss the lecture and just listen to the lecture recording sometimes. Yes, during part time job affect my performance because in the second semester, when I am not doing anything for job, I have a little bit better than this semester. Yes. So to do some the part time job, my mark is quite lower than other semester”.* (JK, master student, cars washer)

*“I start working around 3:00 to 8:00 in the morning, so that’s why it’s like changing the life. So for the first six months it’s really, really bad. I mean it’s very hard to manage work and academic performance, yeah. I think it will give an impact for example, we have just a very limited time to writing our, the thesis”.* (DI, PhD student, part time cleaner)

*“Well, my job is very hard. I clean cars. [Laughter] But yeah, but I don’t have the option of cleaning at night, so decide I go, during the day when I’m free or*

*I don't go out all... But I go there...but the thing is, if I go that means I won't be able to study that day because I've come back very tired. It's as if you were climbing a mountain, so imagine doing it from [laughs], from when they open the car with that 8:00 up until 5:30 because they close at 5:00, but you have to keep cleaning until the last car, which is most usually 5:30 or 6:00. So you're usually drained; you can't do any schoolwork...I think definitely there's an impact negatively". (SG, master student, cars washer)*

*"Mm, yeah. I think, fortunately I don't have many exams; I have to submit assignments. But I found the deadline is still, it was really stress while working and the still doing assignments because in my case I have to go like, start work at 5:00am to 7:00 every day, and it's basically some, Wednesdays it's starting from 4:00am, so in that case I can't do so many works in the night because I have to get up early, so basically, well the night time is the best time we can concentrate if we are not sleepy [Laughter], so that's why sometimes I feel very stressed because I can't go on the deadlines and it might be stressful because sometimes after the morning work, when I was in the lecture I feel somewhat sleepy and tired, yeah". (IR, Master student, catalogue delivery)*

*"I agree that doing part time jobs could have bad effects on our academic performance because if it's using unlimited hours, you know, it can provide a diversion of our effort, you know, a change of focus, our attention...You, you can't spend, you know, like, full day doing part time job. You must have time to relax and get a relief. So yeah, I think that's a major issue. Time and energy". (TA, PhD student, laboratory assistant)*

#### **5.4.2.2 No conflict**

Regardless of the negative impacts on academic performance reported above, some students argued that there is no problem with working while studying. They mentioned that the conflict would not appear when the jobs were on holidays, or on the weekend, or if the working hours do not exceed 20 hours a week and/or there is some flexibility in the time.

*“I think so far so good. Because at first I just take, to me until 4 houses to clean and it takes two days to clean, and because I’m a mother so I have a count on to do multitasking so I can clean and then study and then and then taking after my daughter. Yeah. So it’s just so far so good”. (SF, master student, casual home cleaner)*

*“I don’t really have conflict because my work’s only during holidays or on weekends, and I’m actually only doing two courses at the moment, so I’ve lots of free time and it doesn’t, like nothing clashes with my lectures”.(IS, undergraduate, tourist guide)*

*“Yeah. Actually, I just started working as, like, for the cleaning company this semester. So as for this semester, my work start at 7:00am in the morning until 8:00. So I don’t think there’s a possibly conflict for my case. As when you are working from 7:00 to 8:00, and of course, you already get warm up for the day, and you can’t sleep so you straight away prepare for the university. And you can start planning for the day, for the rest of the day that is one of the advantage. It keeps some sort, like, advantage rather than disadvantage in my case”. (MH, undergraduate student, casual cleaner)*

*“I always ask my employer to give me one or two days leave for exams so I can focus on my exam during that period. But I don’t really have too much of conflict between my work and study because I never work more than 20 hours; that’s actually quite a good standard government set there because it makes sure you still spend time on your study, not too much time on your work so you can keep up the school work”. (JN, undergraduate student, waitress in restaurant)*

*“For me I ask my boss. Normally I work two days a week. But when I have many assignments to do or I do project, we ask them to reduce the time at work, or sometimes do not work at all. And at the finishing I come back to work. Yes. This flexible work, and it’s not fixed, so I choose that work because it can be flexible. Maybe it is not well paid, yeah, but, yeah, if I have much time I can work more, but I do not have much time I can reduce the time I work, or even*

*I do not work at all. It is my choice". (TR, master student, waitress in Asian restaurant)*

*"And in my store actually I have really the flexibility to work or not to work. So if, for example, tomorrow I have something to do and I cannot work, I just say to the owner "Sorry, tomorrow I can't work. I have to do this and this", "Oh that's okay...So I think it's flexible actually, but during this week and after I think I need to be more focussed on my study". (BH, master student, worked in supermarket)*

#### **5.4.2.3 Prioritizing study over working**

Interestingly, some students also revealed that they were very aware of their academic performance and they prioritized their study over being engaged in paid work.

*"As for me, I think I focus on my academic first because, especially in my school, they ask like, very high expectations for in first year some student is expecting to have like at least, like conference paper. So for me it's not easy to, for me to work and to think about my academic at the same time".(SW, PhD student, cars washer)*

*"I, yeah, I experience that actually the first time I came here. I work, like, three days in a week. And then I realised that actually I have to put my study on top of my priority. Then, I decided to work only on weekends, on a Saturday and Sunday". (AR, PhD student, worked in pub)*

*"Yeah. It's very interesting. That's why, since this week I decrease my working hour so I just work...Yes. Only one day each week. So I think it give me more time to prepare my final exams". (BH, master student, worked in supermarket)*

*"But it sometimes I have to choose between study and working, especially when I got night shift, so it's a bit hard doing that shift, especially if you in the other hand and you have to meet your supervisor the next morning. So, yeah, I*

*ask my employer to change my shift to the morning shift, or to the noon shift. Yeah. If you have conflict with your job or your shifts just ask your workmates to change your shifts, so you can swap your shifts between your workmates”.*  
(AB, PhD student, worked in plastic factory)

### **5.4.3 The impact of paid employment on health and safety issues**

When students were asked whether they were aware of the potential impact of experiencing illness or injury because of having paid jobs, only a few of them said that they were concerned about the issue. In contrast, most participants revealed that they were not concern about the risks. This section presents the different perceptions of hazards and risks in the workplace among the focus group participants.

#### **5.4.3.1 Only a few students were concerned about the risks**

It was found during the focus group that only a few students could identify the risks and hazards that they possibly faced based on the kind of work they did. They expressed this in the following ways:

*“Yes, for me I’m really concerned about that. Yeah, I did repetitive work and this time, so it’s long-term risk as well because, yeah”.* (JN, undergraduate student, waitress in restaurant)

*“Yeah. I did just now mention about relating about the hazards of working with poisonous material items and that the thing that involve dangerous. I also learned that about risk matrix. So I think, yeah, that’s, you know, relating the engineering lectures and so on. Yes”.* (MH, undergraduate student, casual cleaner)

#### **5.4.3.2 Some students were not concerned about the risks and performed risk-taking behaviour**

On the other hand, most students mentioned that they were not concerned about potential risks in their workplace. This reflects the characteristics of young workers who tend to display risk-taking behaviours, which is in turn a major contributing factor to injury (Tull, 2009; Meek, 2007; Robotham, 2012). The following comments are relevant in this respect:

*“Well I did in that stage because I do have very basic, like casual employment, as in the kind of employment I go for is the stuff on Gumtree that’s quite random and no equipment. But it means that like the kind of employment is like gardening or like for instance, I’ve just got this thing where I’m doing like labourer for putting up a book sale thing, so I mean obviously it’s quite strenuous work, and when I did the gardening last week I’m not really, I mean I was probably a bit of an idiot, but I didn’t really, like I’m not used to the Australian weather, so I didn’t bring a hat and I didn’t bring sun cream, and it was boiling. So the woman ended up finding me a sun hat and like a shirt I can wear because she didn’t have sun cream either”. (AD, undergraduate student, casual gardener)*

*“So from the beginning because I came here at January and I started work like end of January, so I found like in that summer one day I was like, I mean, without water and I was doing some school cleaning. It was very, my like, dehydrated or something because as we are not aware of these issues because after that I know. Most of the times if you are working outside in the summer we have to drink water, but we didn’t, because in Sri Lanka we don’t have such issues and we don’t used to do it. So if something might be small points, but as we are international students we don’t aware, we are not aware about that”. (IR, Master student, catalogue delivery)*

*“I am also do the cleaning, but I’m. Yeah. It is I am cleaning a house. Yeah. I’m not that aware just like the using masks and because I don’t have any allergic”. (FR, master student, casual cleaner)*

*I used to work as a car washer and we work in the middle of the night around 11:00pm, and we have to wash the cars maybe around 100, I’m not quite sure, but I think that’s a lot. It take maybe three hours and there is no, there are no like standard procedure, what clothes we have to use, what kind of shoes we have to use in order we don’t get slip when we step into the tyre to wash the roof of the car, and we don’t get, we didn’t get that knowledge when we work on the field. Yeah, and sometimes we have to take the high risk when we have to clean on spots like the car is put into a tray or something like skeleton and we have to clean in order we can’t wash the top that suppose for the worse scenario we can fall. That takes maybe around two metre or two point five metre; that’s I think very risky”. (SW, PhD student, cars washer)*

#### **5.4.3.3 Injury experiences**

During the focus groups, the participants not only revealed that they were less concerned about the potential risks that they have in the workplace, but also some of them disclosed their injury experiences due to performing the job required. The following quotations are relevant to this point of view:

*“Yes. To be honest, I’m washing car at night. You know, it’s very hard to wash the car from midnight to 3:00 or 4:00 am, for, especially during winter when it’s very cold. I have experience to wipe defrost in 1 degree or 3 degree, so sometime I’m getting, yeah, because to, it’s very cold. And I have experienced the, what’s, there’s something my leg when I wipe the top of the car, I fell down, and yeah. Yeah. That’s part of my job”. (JK, master student, cars washer)*

*“It just sometimes get sick easily, my back hurts. So I get sick easily because of work, so I notice I got sick three times this year already, compared to when I was just studying. Yeah. But it’s also stress related”. (KM, PhD student, administrative staff)*



*“Back injury, because there’s a little bending and yeah”. (AR, PhD student, worked in pub)*

#### **5.4.4 International students’ perception of OHS education**

No participants produced a definition of OHS education during any of the three focus groups. They reveal their perspectives based on their experiences, backgrounds and even following their common senses. Their understanding of what OHS education implies in general is classified under the following categories: OHS as a broad and boring term; OHS as compulsory and requirement matter; OHS as hazard and risk awareness; and OHS as a standard operating procedure.

##### **5.4.4.1 OHS as a broad and boring term**

International students perceived OHS education as a broad term without actually having a clear understanding of the scope. One of the participants explained that the term was less attractive, even boring, since it related to a lot of theory, rules, awareness and dull things to remember.

*“I mean, I’m not, I feel like it’s quite a broad term. I’m not even really sure, sort of, everything it covers”. (TS, undergraduate student, worked in fruit shop)*

*“For me, for my age, I think it might be a pretty boring thing because it’s occupational health and safety, it sounds, like, not interesting at all. And yeah, yeah, I think so it’s a bit ...Um ...Because it’s something, well, when I first heard of it, it’s, like, something to do with lots of theory, you know, lots of things to remember...we do mistake all the time. Like, ‘I can’t do this,’ ‘I can’t remember,’ you know, like, being able to learn occupational health and safety”. (BC, undergraduate student, waitress in Asian restaurant)*

##### **5.4.4.2 OHS as a compulsory and requirement matter**

Some participants expressed their understanding of OHS as something that should be associated with law, and a mandatory and compulsory matter. They

believed that OHS constitutes part of the University and the workplace requirements when they commence study or a part time job.

*“The first word came to me about the OHS is law. Yeah. I think should be called other ways, like, legal support or whatever your occupation is. Yeah. I think health and safety is a major issue in any occupation, so I think should be useful as well with, I think must be some degree mandatory for, yeah, for whatever discipline is. I think some, held it this year, and every student or staff needs to attend, I think it’s a mandatory request”. (TA, PhD student, laboratory assistant)*

*“Until I just, they only showed me a document or a paper to sign it, and then it’s handed back to the Head of School of department. And I think we should get a training, not only for tutors or teachers or I think especially for PhD student because most of the time they spend the time at the uni, at their room. I think that should be considered for the university to think about that. And related to my part time job I work at a plastic hand factory“. (AB, PhD student, worked in plastic factory)*

*“Yeah. Yeah. Not only for the companies, but also for the employees. I mean, for employee, employer. Yeah, it’s something that companies should explain to the workers I think, before they’re starting to work”. (DI, PhD student, part time cleaner)*

#### **5.4.4.3 OHS as hazard and risk awareness**

In general, many participants expressed that OHS education is mostly related to awareness of risks and hazards. These individuals realized that they are surrounded by risks and hazards and OHS education is designed in order to help them avoid exposure to hazardous things, particularly in the workplace.

*“I think it’s something to make us more aware about the risk that we could face in our working environment. Just that he said that every job has different risk.*

*And I think we need to be aware about the risk that could be faced in our working area, especially the risk that affects our health or our safety. And yeah, I think it's important for us". (JK, master student, cars washer)*

*"I suppose working in a job and having your needs looked after in the sense that you aren't being put in any danger". (AD, undergraduate student, casual gardener)*

*"And you should be aware of the hazards associated with the work, yeah, like if you work in a lab you should know like which chemicals are hazardous, and what to do when you spill, like accidents happen, like when you see chemicals on the floor what the protocol, yeah". "I guess how safe what place is, especially to people like us in terms of students we want places where we are safe. Things like security, things like comfort". (IS, undergraduate, tourist guide)*

*"...Like how we protect ourselves while we are working in a particular place to prevent from hazardous things". (IR, Master student, catalogue delivery)*

*"Yeah, I usually know where to go if there's a fire hazard, how to evacuate from the building and things like that". (JN, undergraduate student, waitress in restaurant)*

#### **5.4.4.4 OHS as a standard operating procedure**

Another viewpoint that international students mentioned relates to OHS as a standard operating procedure. Some students revealed their experiences from previous jobs where they gained an understanding that health and safety procedures should always be taken into consideration not only around the University, but also – importantly – while performing a job.

*"I just remember that one day in my previous occupation, there was a big explosion of fertiliser, ammonia. And it was a really risky situation which everybody was, we were asked to get out of the building and we run away from*

*that place. And I guess that, kind of, explain the way I see this standard, and kind of, giving me a very valuable shift how I should keep myself safe all the time. And yeah, that shift the way I see the standard. Like, I just try to remember this. It's, like, procedures. You know, safety standard something like that". (AR, PhD student, worked in pub)*

*"Oh, I think is to introduce like safety procedure to the worker, something like that, like, For instance, like to use a clothes with fluorescents something like that". (SW, PhD student, cars washer)*

*"I think it's about education, so it's about procedure how to maintain people to aware about the safety and about the how for doing the job". (SF, master student, casual home cleaner)*

#### **5.4.5 The current practices of OHS education within the University**

The participants were not asked directly to explain the current practices of OHS education for international students within the University. However, to explore the information related to this we asked them what kind of OHS education or training they have experienced during their study in the University. They described several methods of OHS education delivered by the University some of which was provided especially for international students, and other sessions which included local students.

In general, the ways the University deliver OHS education/ training in is organised under following categories: OHS induction; OHS lecture; OHS video and the University website.

##### **5.4.5.1 OHS Induction**

Some students noticed that in the early stages of study, the University included OHS education as part of all university students' induction. However, participants commented that the training was not at all detailed and focused on the

working hours that international students were entitled to undertake as part of their visa conditions.

*“First time I heard about OHS at the university when I start my candidature first time here, at the University”. (AB, PhD student, worked in plastic factory)*

*“And yeah, I just remember that the first training that I got in the School is, I think first time I arrive at the school and there was one staff introduce to all, you know, like, emergency exit and how to be safe in the environment and sort of thing. But it’s not really details”. (AR, PhD student, worked in pub)*

*“Oh yeah, I remember, there was a talk during Orientation Week about student visas I attended, and they talked about like your work conditions, like you can’t exceed as the number of hours every fortnight. Yeah, or otherwise your visa will be cancelled... Hmm, I can’t really remember, [laughs] because that was the most important for me; I didn’t know how many hours is the maximum we can work...Oh, I think it was covered in a talk at the start of Orientation. I remember there was a talk there”. (IS, undergraduate, tourist guide)*

#### **5.4.5.2 OHS lecture**

Two participants recalled the University offering lectures on OHS. One of the participants mentioned an open lecture on working in Australia provided by the University, while another student indicated that the School of Engineering has a dedicated series of lectures on hazard awareness related to their field of study.

*“I remember that there was a like, I guess open lecture we could have gone to about working in Australia, but I didn’t go. But other than that I don’t remember there being any specific way of like broadcasting to us Health & Safety, like I don’t remember anything like on the University website or an email going around”. (AD, undergraduate student, casual gardener)*

*“I’m final year doing mechanical engineering in Uni Adelaide...And this, it has been, like, about two or three lectures talking about the hazards of using*

*some poisonous stuff, like, the emission in the factory and so on". (MH, undergraduate student, casual cleaner)*

#### **5.4.5.3 OHS video on the University website (MyUni)**

The student participants noticed that the University has provided an online video on OHS education which can be accessed through its website. However, one explained how difficult it was to find for the link to the video in the website. In the opinion of a participant who had managed to find and watch the video, it was not really about OHS; rather, it only promoted the security services in the University.

Additionally, the long duration of the video resulted in the student getting bored and therefore not focusing on watching the material. There was mismatch between students' needs and the material provided by the University

*"Yeah, but on that point, because I've been at Uni for so long, I've seen My Uni change so many times. And every time I just figure out how to use it. Sometimes it's really hard to access your stuff. Yeah. I don't think I see it in MyUni anymore. I think I see it in Unified, and it's one small little link at the bottom...they're difficult things to find. You have to click on staff and students, then there is a small link on OHS. And also, another thing about video that I notice with me, is that my issue is it tends to be really long and I don't really pay attention". (KM, PhD student, administrative staff)*

*"I think there was one in MyUni where they have video, and it showed us what to do in certain situations, like they taught us about, I remember the security service that's here, so as you leave this place late at night you can contact them so they can walk you back to your car. That's the only think I remember from the video...Yeah, but the only thing I remember was the security. It was a send out; I was automatically enrolled in it. Yeah, so I decided explore and I click on it and sort of playing the video...Yeah, everyone was enrolled in it, even like housemates as well". (IS, undergraduate, tourist guide)*

#### **5.4.5.4 Different emphasis of OHS education in engineering and non-scientific areas**

Engineering students claimed that the OHS standards and procedures were integrated into their final year project for undergraduate students and into the research work for postgraduate students. They viewed OHS education as very important in their working environment when working as engineers later.

*“it’s like being an official in our mechanical engineering school that observe this OHS aspect for every single group doing their final year project. So I believe that when they create such a measure, I think is, like, or it must be so important that most of us need to learn as an engineer doing our work later on after we graduated from the Uni. Yeah”.* (MH, undergraduate student, casual cleaner)

*“I think I attended OHS provided by our School, School of Civil Engineering. And also I’ve attended safety examiner for the laboratory, it also, that is for the research work, but is also really to do with the laboratory health and safety. It seems to also called OHS if I, yeah, didn’t make it wrong. But I think it’s very important in working. Yeah, in the working situation”.* (TA, PhD student, laboratory assistant)

Another student from the business school suggested that OHS education is not only important for scientific students, but also for non-scientific students. This student suggested that the OHS education topic should be available for every student, despite their field of study, as there are different potential risks to health and safety depending on their work context. Thus, the content of the OHS education could vary according to the study programs.

*“To me, I think OHS has more meaning to, seems it has more meaning for the scientific students because the first year I study in agriculture, food, and wine, and they have, like, safety management session every week, sometimes every*

*several days. But when I move to the business school, seems there isn't much emphasis on this. And I think as PhD student in business school, the OHS to me, seems have more emphasis on some potential accidents. That's all". (XU, PhD student, catalogue delivery)*

*"Yeah. I think there should be more emphasis on this, but apparently the School doesn't give much emphasis on the OHS and didn't tell us in the, I mean, the social study environment what kind of OHS we should pay attention to. Personally, I do think we should relate the, not only the physical damage, but some mental, like, how to deal with depression. Depression, yeah, sometimes even the noise will be a mental, should be related with OHS because nowadays we're studying in a room where there are many, many, more and more PhDs and people make different kind of noise". (XU, PhD student, catalogue delivery).*

#### **5.4.6 The relevance of the current practices to the workplaces**

When participants were asked about how relevant the University OHS training was to their experience in the workplace, they revealed that they found it difficult to see the usefulness of what they had been told.

The information regarding working while studying provided by the University focused mostly on the regulations such as the restriction of number of hours students were allowed to work. Apart from that, according to the students, no information or training had been provided by the University that was relevant to their part time jobs.

*"They are only saying that you have this number of hours and don't exceed this; that's all about the work and working things". (IR, Master student, catalogue delivery)*



*“You know, I’m working outdoors and they (the University) didn’t give me anything about how OHS something like that, yeah”. (JK, master student, cars washer)*

*“I mean if there is a kind of education. Because so far I just heard, I just ever read in the MyUni that there is a health and safety procedure, and we can look at the video. But it’s not related to the part time job so I mean if there is like the related to part time job...So far I watched the video about the safety procedure only in University. For example, if you trapped in the library until night so you can call the security on or if you don’t leave until midnight then you cannot catch the bus. You can call the security. But not for the related to the occupational or as work or a part time job”. (SF, master student, casual home cleaner)*

*“As, I mean as we don’t tell that education gained from the University we can’t say about it”. (IR, Master student, catalogue delivery)*

#### **5.4.7 International students’ perspective of OHS curriculum**

When asked about the inclusion of OHS education in the University curriculum, the responses of focus group participants can be grouped into four responses. The first response was OHS education became a part of induction or orientation program for new students; some students proposed OHS education should be a compulsory course; other students recommended OHS education as an optional course; and finally, OHS education should be delivered as training with a certificate.

##### **5.4.7.1 OHS education as a part of induction or orientation program**

Most participants argued that OHS education should be integrated into the existing compulsory orientation programs for incoming students, rather than put into the University’s broader curriculum. By this integration, the OHS education could be disseminated widely to students. Those programs should dedicate at least

one session on safety issues in the workplace, and not combine it with safety issues in the University environment session.

*“For me it’s like, the education about Occupational Health & Safety can be proper, like in bridging programme, like induction bridging programme. So not to be included into curriculum”. (SW, PhD student, cars washer)*

*“And normally there’s an orientation programme for international students. I think those people who are organising that orientation programme should put much attention to this Health & Safety issues. Orientation programmes accordingly, they should pay attention and do at least one or two lectures, something, regarding to OHS other than the number of hours. They are only saying that you have this number of hours and don’t exceed this; that’s all about the work and working things”. (IR, Master student, catalogue delivery)*

*“I think, just brief the information about OHS. Yeah. And I think it is better, rather than you put it in the finance or banking or engineering. I think there’s not much with the curriculum. In orientation academic program ...you have to...to program, to introductory academic program, it call IAP [Introduction to Academic Program] for all the student only. And orientation for all international students....And we should give, we have a safety at Uni, we have a session safety at Unis, they introduce us how to call for security after 10 pm. Yeah. And you can give one more session about safety when you find the work, job. I think so. Yes”. (TR, master student, waitress in Asian restaurant)*

*“I’m actually thinking about my field in education, because as I said before, there’s, sort of, low risk field in which you have. Personally, I don’t think that including the standard to be a part of the curriculum is important, because essentially that kind of risk, but I also, on the other hand, I also think that the standard is really important for students. Especially for those doing part time jobs. But perhaps as a compulsory orientations, programs before the start of the degree. Something like that. I’m thinking about how the University having*

*this kind of program for the whole students. Yeah”. (AR, PhD student, worked in pub)*

*“Yeah, I think they can just put it as part of the induction and we do it maybe once a fortnight or once a month, something to upgrade those who are just coming in or those who missed out”. (SG, master student, cars washer)*

*“I think so, orientation programmes accordingly, they should pay attention and do at least one or two lectures”. (IR, Master student, catalogue delivery)*

*“In my opinion maybe there are three things that the university can do. First of all at the beginning of preliminary or IAP [Introduction to Academic Program] or just like O week [Orientation Week], we have O week...they can put the information in special hours in them, in the session. And second one put them in MyUni, like maybe the video and the general information or also maybe the detail of the safety”. (BH, master student, worked in supermarket)*

*“We have the orientation program...could be included in an introductory program”. (FR, master student, casual cleaner)*

#### **5.4.7.2 OHS education as a compulsory course**

Regarding the students’ comments about integrating OHS education and training within the University’s formal curriculum, some students suggested that it should become a compulsory course, particularly for any international students who have a part time job or who plan to work.

*“It is compulsory maybe for each student to attend the training, something like that. I think it’s very important, especially for the international students who have job. Because they experience different environment from their home country, so I think the university should think the about OHS training for us. Yeah”. (AB, PhD student, worked in plastic factory)*

*“...a non-optional course for students who are doing part time jobs in the university or in some other places as well. It’s sometimes non-optional*

*requirement in, non-optional course in our School. It's there if you want to work in the lab or doing some other part time jobs, within or outside university. But I guess, for most of students, they probably think it's not, isn't, you know, optional course. I think, I'm fully, I fully agree that it should be developing, developed as a compulsory course. Sorry". (TA, PhD student, laboratory assistant)*

*"Well, So I mean, personally I would like it if there was something compulsory, because I do have a part time job, but I understand why that, sort of, might, probably is not, like, as you said it's not for everyone". (TS, undergraduate student, worked in fruit shop)*

*"I think it's important for us as worker, I think the university or the School should make the training more critical or compulsory. Not just some website or some paper material that you have to read or you have to ask your supervisor to sign on it to demonstrate that you have read. Sometimes, we just tick accepted or something like that". (XU, PhD student, catalogue delivery)*

#### **5.4.7.3 OHS education as an optional course**

Correspondingly, some participants expressed their opinion that OHS education could be provided by the University as an optional course, based on their own preferences. The rationale for this suggestion was some schools, such as the School of Engineering, had already provided OHS education for their students, and not all students were engaged in part time jobs.

*"And also the maximum the university can do in my opinion is put it in elective courses because some program may cover this kind of OHS for something like engineering, maybe also in health. Coz not all international students are working. So it may be, it possible that it can be put in elective course but that the maximum the university can do. They cannot put in more than that I think. And also maybe for me doing job in the university or during the study is optional and taken by the students themselves, so I think taking the OHS*

*education is also the option. So doing or not doing, it's up to themselves I think". (BH, master student, worked in supermarket)*

*"So I don't know, maybe if, I don't actually know if there is something optional at the moment. But if there isn't, like, something optional, but it's not regularly, because that wouldn't be worthwhile. But sort of, maybe, like, twice a term or something. And then, I don't know, cause there could be something and I just don't know, to maybe publicise it a bit. That would be really helpful, I feel, so yeah, maybe a few optional things just publicise it. Yeah". (TS, undergraduate student, worked in fruit shop)*

#### **5.4.7.4 Providing a certificate for completing OHS training**

Several participants suggested to the University provide could provide training exclusively on OHS education for students and provide a certificate of completion. According to some students, this OHS training certificate could be useful for their resume when applying for jobs. As a result, some students indicated that they would not mind paying a registration fee for participating in such OHS training.

*"I think yes, giving some training or some course with, for free, or with reasonable price, if it's quite important, quite, it's more, it's better. For example, my friend, who went apply for job in construction site, requirement is, one of the requirement is he must have OHS certificate and he attend a course, one day course, for \$100 to get the certificate. And I think if the university can prepare training or course, yeah, and we can attend for free or with the reasonable price of you know, 20% off or something, yeah, it's better". (JK, master student, cars washer)*

*"We can barely talk about occupational health and safety. Yeah. But the thing is, when I get to learn about the occupation health and safety, it's actually connected to some aspects of my life as well. Yeah. And for university, I think it is important. And then yeah, I think if, it has to be in, yeah, it has to be with,*

*you know, like, free certificate...I know that it's cool to have on your CV, but yeah, in your resume, but yeah, it's very cool to have it in your resume, but yeah. Yeah. But I think, I still think it is important for us". (BC, undergraduate student, waitress in Asian restaurant)*

*"Yeah. I agree with most of the opinion, which is, like, it is important for the student to know the OHS, because it, about making the CV colourful, apart from that, is about, I think, how the employer can have the faith and confidence on you, as in they were, like, okay, you have OHS achievements on your resume and so on. It can be compared to other applicants asking for this job in the future. But of course, the boss probably will think, 'I think we better choose with this guy because he already know what's the risk being imposed in doing the job,' and so on. So is very important to have this in our education. And after that, the, it will, like, make, creating the working environment much more conducive and much more safe". (MH, undergraduate student, casual cleaner)*

#### **5.4.8 International students' perspectives on whether the University is concerned about OHS education**

When the participants were asked about their perspectives on whether the University concerned about OHS education, the participants' responses were not only about how concerned the University was regarding their working activities outside the university but also they revealed their contentions that the University discouraged them from having part time jobs. Furthermore, the students revealed their hope for the University to be a "hero".

##### **5.4.8.1 "Zero" concerned**

Most participants maintained that the University did not pay enough attention to the OHS issues particularly for international students who have part time jobs. Some of participants even claimed that the University had minimal concern for this aspect of the student experience.

*“Their contribution for the OHS, OHS for the jobs outside the university is zero. Yeah. So that’s the way it sees, and I guess the School has the focus on the laboratory or other works inside the building or inside the university, but outside the university, if you doing a part time job, like working at a restaurant, they provide, they don’t provide any information actually, yeah. I think they should improve that as well”.* (TA, PhD student, laboratory assistant)

*“Actually, I have noted for this. But I no explain, I haven’t found, like, for business school, well what I doing now, business not so much about that. Yeah. I think, yeah, it’s no concern. I can say that’s, I can’t say about this, sorry”.* (JK, master student, cars washer)

*“I don’t know, strangely I feel like since I’ve come here, been in an international bubble [laughter] ... but like there’s no, it doesn’t feel like the University really cares that we’re here and then we’ll just end up going, and the University will almost never know that we were ever here in the first place. That’s how it feels for me. And that’s the same kind of, actually like they don’t, I don’t really think if anything they’ve necessarily done that makes us think that they really care about what we’re doing and if we’re working and that kind of thing”.* (AD, undergraduate student, casual gardener)

*“So what, I didn’t see what whether of the university in the OHS education. But it just only how health and safety for the students but not in the working place. So I don’t see any concern from the university”* (SF, master student, casual home cleaner).

*“I think the university concerned but not too much. But not related to our part time job or our outside university life I think”.* (AB, PhD student, worked in plastic factory)

*“It’s not much. It’s not much. Not that much they concerned about it”.* (AR, PhD student, worked in pub)

*“I think in my opinion the university they will put so low concern in this area. They didn’t care about the other thing. So I think it’s very low in the university*

*about this kind of health and safety in the workplace”. (BH, master student, worked in supermarket)*

*“We haven’t given much information, actually, about, yeah”. (FR, master student, casual cleaner)*

#### **5.4.8.2 So, what is the University concerned about?**

According to the participants, the University had dealt with safety within the University environment very well. The students received useful information on how to keep themselves safe on campus, the security services provided by the University, and safety procedures related to students’ courses, such as safety in the laboratory and in conducting a survey. It can be assumed that the University has placed more emphasis on the students’ safety within the University environment as this is regarded as their primary responsibility.

*“I remember once there was some ‘beep, beep, beep,’ it’s, kind of, an alarm. But at that time, I didn’t realise it, so it’s alarm. And other students, she’s very careful about this kind of information. Immediately, she called the secretary, security office and asked them to check whether there’s anything that is serious thing. Because she’s doing PhD on some chemical study, so I guess she get a very good education on this information. I think that’s very good”. (BC, undergraduate student, waitress in Asian restaurant)*

*“And in the first year, I came here, before we see this CCSP [Core Component of the Structured Program] document, there’s a compulsory induction about OHS. And later in that year, I was going to conduct, go outside, in outside to conduct a survey. Then I use my own car, and then, but before I leave, when the safety officer send me a email asking me to meet with him. And they give me some, you know, some emergency package, a medical package, just so also give me some necessary tips about how to conduct survey outside. So I really appreciate that, that’s very useful”. (XU, PhD student, catalogue delivery)*



*“Well, for my engineering school, I just heard a story from my friend, he went to the chemical engineering school for getting some chemicals and so on. And apparently he’s been told by the chemical engineering school officer or OHS officer to get the advice from the OHS mechanical engineering school first if he want to ask for the chemicals and so on. And this shows they actually pay attention as well, a great deal of attention in getting those fully safe and try to have a good environment for the student to work on for their final year project. So the university is quite concerned if that’s the case, and yeah. Okay”. (MH, undergraduate student, casual cleaner)*

*“Obviously about 50% ‘cause take my School, for example, I think they [the University] done a very good job safety within the School or within the university”. (TA, PhD student, laboratory assistant)*

*“I missed the first training, actually, but there is one lady who keep reminding me. Yeah. I think that, kind of, reflecting what approach that my School has on every students, of every student they have”. (AR, PhD student, worked in pub)*

*“I think only in the university environment. Yeah”. (AB, PhD student, worked in plastic factory)*

*“Something, regarding to this other than the number of hours. They are only saying that you have this number of hours and don’t exceed this; that’s all about the work and working things”. (IR, master student, catalogue delivery)*

#### **5.4.8.3 The university discourages international students from having part time jobs**

Some students pointed out that the University was actually aware of the safety issues experienced by international students with part time jobs. However, as they perceived it, the University was only concerned with students’ academic performances and were concerned that part time jobs would seriously interfere with their study. Therefore, the University did not provide information or training

exclusively related to safety in part time jobs. In addition, one student argued that the willingness of the University to provide OHS education was related to the budget allocation.

*“This is because if they ask about this case, for example they have to choose which one do you choose? The student work or student not to work? I think the university will choose not to work, because it will be beneficial for them. I mean so the student will be successful and also there is no other case outside the study. You just taking care of just the academic area”. (BH, master student, worked in supermarket)*

*“I think so. It was when about the induction we get for all things, I think for us it’s geared towards discouraging us from getting a job, and in that sense they miss out on informing us and giving us the most important information that we could cover”. (SG, master student, cars washer)*

*“Yeah, they probably don’t want us to get jobs. [Laughter] They just want us to study probably”. (AD, undergraduate student, casual gardener)*

*“What factors we should consider while we are working, because what we got in that session is, “Don’t try to work at the beginning. Just pay your attention to studies”. (IR, master student, catalogue delivery)*

*“I feel like the University is aware of what kind of problem we would get if we, our international student do, if have a part time job. But somehow they may be reluctant to give us more information because in that way they’re more cost, expense, they have to hire those people with knowledge and that it’s legal to give us those kind of legal advice, is that a case?”. (JN, undergraduate student, waitress in restaurant)*

#### **5.4.8.4 Be responsible for your own risks**

Several participants revealed their impression that the University seems satisfied to let them face their own risks in the workplace. They felt that the

University made it their own choice: *“that is, international students choose to come to the workplace so their situation is of their own making”*. The following quotations support this argument:

*“I, personally I feel it is your own personal responsibility, go find out the information that you need and you can just ask people, like what I do, I ask any of the question I go and ask other person. So basically I know almost everyone [laughs] by asking around, yeah”*. (IS, undergraduate, tourist guide)

*“You are responsible for your own safety and also you’re responsible for the other ones, in case there are some potential risks”*. (XU, PhD student, catalogue delivery)

#### **5.4.8.5 Illegal working, being vulnerable and needing a “hero”**

Interestingly, some participants realised that they are vulnerable, particularly when they enter workplaces that are mismatched with their academic background. Sometimes they are even involved in illegal working conditions. Hence, they hope that the University could become a “hero” by providing help when students face problems in the workplace.

*“But some, the problem is some international students also involve in illegal work. It’s hard to get a formal job, would be, that part was missed. It’s really hard; I’m sure everyone here is qualified for something else other than what they are doing, but it’s hard to get the job in your area here in Australia”*. (SG, master student, cars washer)

*“When we’re in like a vulnerable position where we’re being paid below the minimum wage, we’re working when we should and we could be disposed of just like that”*. (AD, undergraduate student, casual gardener)

Sadly, some of international students revealed during the focus group that they faced difficult conditions in the Australian workplaces. Then, some of them

expressed their hope that the University could provide some help regarding their vulnerability in the workplace. Is it possible for the University to be a hero in these circumstances? The following expressions reflected their conditions and hopes:

*“I don’t know if this is possible, but having a university like lend a voice to us, in a way, in terms of like if we have been wronged by getting in touch with the employer and saying, “This is the right of the student,” because I think as an international student you’re kind of intimidated to actually challenge your employer because they’re the Australian and you’re the international. And it’d be quite, yeah, helpful if the University could just add a bit more formality to it”. (AD, undergraduate student, casual gardener)*

*“And the other thing is you challenge then probably lose the job, that’s the problem, so nobody going to challenge. So even underpaid most, the most of the times you have to bear it up because we don’t like to so don’t...But I think even Uni should take part”. (IR, master student, catalogue delivery)*

*“We don’t know where to seek help from, because I had to ask around where could I get help with I don’t know what my rights are, and I was, I asked the International Student Centre, they pointed me to the Career Services”. (IS, undergraduate, tourist guide)*

*“Yeah, and where to get help from, if not from the University but give you a direction of, “If this happens to you then maybe you can get the solutions from this place, this place and this place,” because it happens a lot. I’ve had this same experience in two different places, yeah”. (SG, master student, cars washer)*

These findings highlighted a need to explore more regarding international students’ perspectives on the role of the University in OHS education, which is revealed in the next section.

#### **5.4.9 International students' perspective of the role of the University in teaching OHS**

When students were asked about this issue, various responses can be highlighted under following categories: teaching about rights and responsibilities; teaching about hazards and risk in the workplace; teaching about OHS basic knowledge; and providing safety training for international student workers.

##### ***5.4.9.1 Teaching about rights and responsibilities***

Some students responded with clear opinions when they were asked about what role the university should play in teaching OHS. Some international students maintained that the university should provide them with information related to the legal aspects, such as students' rights in the workplace.

*“Yeah. You probably should want to provide us with things that we don't know because we are international students. Things like our right to fair pay, a right to have our say, right to freedom of speech, things like that. Which we were not exposed to because we are from different countries, and we were exposed to different experience in different countries”. (KM, PhD student, administrative staff)*

*“If you're looking for jobs they've got, they remind you of your wage that you should be expecting so you aren't exploited in that sense, I suppose 20 hours because if you don't do it you don't get a job. And like, well the University's not really there to, or hasn't been there to assist us by telling us what really our rights are, what we can do or I mean we just don't really know anything”. (AD, undergraduate student, casual gardener)*

*“And now I think the work, the student also needs to know what their right as a worker, yeah”. (SW, PhD student, cars washer)*

#### **5.4.9.2 Teaching about hazards and risks in the workplace**

In terms of accident and injury prevention, teaching about hazards and risks in the workplace was one of the most important issues that students highlighted during the focus groups. They needed more information related to this area, since they realise that there will be different risks and hazards for different places.

*“They should be reminding us that danger is everywhere and like, for example, probably you can send every month or every semester an email getting about OHS issues, so that everybody can take care about the danger around them”.* (MH, undergraduate student, casual cleaner)

*“I mean, live not only in my School, but as well, to the workplaces too. And I really want to know what kind of risk that I might face if I go to different places, like, say, I go to this place and what kind of risk that I might face. Anything I might be aware of or something like dangerous”.* (AR, PhD student, worked in pub)

#### **5.4.9.3 Teaching OHS basic knowledge**

Rather than only focusing on security and safety around the University environment, some participants suggested that the University should provide basic OHS information and training for international students who have paid employment. The following comments emphasise this argument:

*“Yeah. Beside security at Uni, this is for student who have part time job. Maybe they should attend training or course from the university to explain about the basic safety, and about how during taking part time job outside the university, or maybe yeah, training about how if there’s something happen in the workplace what should student do”.* (AB, PhD student, worked in plastic factory)

*“So the thing Uni can do is provide it, is provide that basic training. For example you should focus on for the lesson if you do in a factory you have to*

*focus on how we have to trained for you about the safety equipment. Yeah” (TR, master student, waitress in Asian restaurant).*

*“And so I think Uni has not done that, and yeah, but like I said there is only so much they can do. But I guess basics OHS they should probably do better in covering”. (KM, PhD student, administrative staff)*

*“So the university can also put that kind of OHS in the enrolment, so how to get the general information or the special information about the safety in the workplace”. (BH, master student, worked in supermarket)*

*“Yes. I think the university is very important in teaching the basic OHS in the workplace, because after all, now and after we finish our study, we’ll all go to society and find a job”.(XU, PhD student, catalogue delivery)*

Some participants emphasised again the importance of the University delivering OHS education for students who have part time jobs.

*“All about safety...it’s related to safety, our safety, physically in our workplace”. (BH, master student, worked in supermarket)*

*“I’m stressing the safety in the workplace. Maybe some of us having part time job, something like that...Yeah. So I think, yeah, the stressing. I don’t know. Because we spend most of the time in the...I think that’s important. Yeah”. (FR, master student, casual cleaner)*

*“In relation with my part time job actually whatever about basic the occupational safe, health and safe application”. (AM, master student, casual cleaner).*

#### **5.4.9.4 Provide safety training for international student employees**

To improve their work conditions, most participants maintained that the University should be concern about international students’ working life and provide

basic safety training for this sub-group. The following quotations support this argument:

*“Yeah, I notice that part time job become as usual thing for in the international students or for a student in here. So if the University can provide this training or education it will be benefit for those who take the job. Yeah, it’s really, it can be take the advantage for this before they in the job”. (SF, master student, casual home cleaner)*

*“In my view I’m thinking about a differently like I think university has a responsibility to provide OHS training to us rather the information of what he say, like what we should demand in a job, like if you are studying out on a new job, shouldn’t they provide you like the protective clothing? Shouldn’t they tell you how to do the job? Not the University to tell us each and every, but just provide the links or training so that we can seek that information ourselves, yeah”. (SG, master student, cars washer)*

*“Uni not only give training during the orientation days, but University should give OHS training during each semester as well. So the university show they care with the part time job for the international students”. (AB, PhD student, worked in plastic factory)*

#### **5.4.10 Suggestions for improvement**

Some recommendations were produced during the three focus groups to improve the situations. Students’ suggestions and recommendations are categorised as: OHS training needs to be more practical, fun, attractive and simple; OHS tutorial using peer shared experiences; OHS email for reminders; OHS week, Hub Centre noticeboards; OHS Unit to handle H&S issues; and conduct a survey to address students’ needs.



#### **5.4.10.1 OHS training needs to be more practical, fun, attractive and simple**

Some participants suggested that inviting people or other institutions to come to the University and give them training that can be applied in real situations in the workplace could be more effective than the current practices offered by the University. Furthermore, if OHS education and training could be more attractive, simple and fun, it would be more effective, according to some students.

*“I just come across, like, psychologically, when they can invite some people from the police or the fire safety, like, they can have, like, hands on, like, okay, case, you know, we have some dolls here, and you know, they can just, like, use the part of their experience that we can apply later in our work”. (MH, undergraduate student, casual cleaner)*

*“Just probably some issues the education and training process could be a little bit fun, I mean, like, if, it’s kind of show an incident or kind of, people or facility to get it into”. (XU, PhD student, catalogue delivery)*

*“You know, like video training, something interesting, something that make us wants to click that and open that and, ‘There’s a video of this,’ like, an animation or something. I mean, it’s very childish, but it’s, our mind is actually more attracted to that, I mean, in my age”. (BC, undergraduate student, waitress in Asian restaurant)*

*“When I received the information about training, I think, ‘What is this?’ What are the simple thing that I can learn?”. (AR, PhD student, worked in pub)*

#### **5.4.10.2 OHS tutorial using peer shared experiences**

From students’ perspectives, OHS tutorial using shared peer experiences could be very beneficial to improve effectiveness of the training.

*“I think it would be good if the program can inform students. I mean, students, they teach students. Just like they have experiences, what, students in are*

*doing. So they, kind of, involving students, I mean, senior students and to train the new students”. (AR, PhD student, worked in pub)*

*“You know, the tutorial, or whatever other things, by maybe more effective”.  
(TA, PhD student, laboratory assistant)*

#### **5.4.10.3 OHS email for reminder**

Some students still prefer to receive an email or reminder from the University related to OHS issues.

*“They should be reminding us, probably they can send every month or every semester an email getting about OHS issues”. (MH, undergraduate student, casual cleaner)*

*“Yeah. the emails are a really good idea, because it sort of, like, takes minimum effort, like, to send an email to everyone. And yeah, maybe once a term and it just keeps it on your mind and also it shows that they at least attempted to do something. It’s important they perhaps made some written evidence that they’ve tried to, yeah. Obviously it’s not the most effective thing they could do. But, I would notice if I got one”. (TS, undergraduate student, worked in fruit shop)*

*“For the emails, I think a good way to do it is, like, I was in an area one, an email showing a link, and also maybe that online as well”.(TR, master student, waitress in Asian restaurant)*

*“...And if it’s there that we have to go and find it ourselves, then that’s not really a very good way of doing, like they should directly email us and tell us”.  
(AD, undergraduate student, casual gardener)*

#### **5.4.10.4 OHS week, Hub Centre and noticeboard**

Creating an OHS week and using the noticeboard in the student Hub Centre were other options suggested for the University to improve the current situation. Some participant believed that those methods could provide more exposure about

OHS issues to international students, particularly when the information is put in strategic areas of the University, for instance in the Hub Centre or on noticeboards in kitchens around the University.

*“Maybe you can just have, like, you know, OHS week, as in you can put it in some, because we have hub centre already, so we can make use of the hub centre as the centre of communication”. (MH, undergraduate student, casual cleaner)*

*“So you can put it in hub centre of how we have a big screen there, maybe you can put something in that screen”. (JK, master student, cars washer)*

*“They can put the information in other region like hub or like kitchens or something, I think the notice should be given like poster or something, so people will know”. (AR, PhD student, worked in pub)*

#### **5.4.10.5 OHS unit to handle H&S issues**

The following quotations reveal information about students’ perspectives that the University should create and staff an OHS unit, which could provide some help to handle issues related to their problems in the workplace.

*“I’m thinking that where the University can provide like a small unit to help the student where, when they got problems for example, their student work right, means for example, they got pay less than the average. Or it’s like a unit for students to like getting their right in a working place. But the information itself is by demand. I mean the student will try to find any information based on their demand, because every work places has a different types of the OHS. Based on my opinion, something that we are really need when we have a troubles in the working place, what helps will be given by the University to like help us to solve these problems. Yeah, so I think it’s like where should we go when we have a problem in the working place”. (DI, PhD student, part time cleaner)*

*“I think there should be someone to, where, will help us if we have any grievances to bring up, because I’m not really sure where that kind of help is, like I’m not getting minimum wage”. (IS, undergraduate, tourist guide)*

*“...it’s like OHS officer and probably they can assign somebody that expert in OHS issue so that they can come and consult if, whenever they want to. If, for example, they want to work in, say, cleaning company of some sort, then they can come to that officer and consult with him and so on, and so, I’m not sure, probably this one of the idea of their role in this thing, yeah”. (MH, undergraduate student, casual cleaner)*

#### **5.4.10.6 Conduct a survey to address students’ needs**

Some students suggested that the university could collect data through a survey to identify international students’ needs regarding the relevant OHS training to the workplace.

*“Probably what they can do is just collect data what concern for each of students that they have a part time job so what kind of concern that they have in their part time jobs”. (AR, PhD student, worked in pub)*

*“I agree in some extent but I think in the scope of university there are too many students to cover and too many kind of works to cover. I think that must be costly for the University to do all the training. So I think for the first stage they can collect information collect data, and if it’s so there is big enthusiastic then they can do practical training I think”. (BH, master student, worked in supermarket)*

*“I think the university can do step by step. For example initially in early of the year they give preliminary information and then they make survey what should must be used. And I think one of the thing that they can use the money is to give training, even if it doesn’t cover all of the students but it may be, step by step. So at least they do better than currently they do”. (AM, master student, casual cleaner)*

#### 5.4.11 Summary of the study findings

With respect to research questions of the study, the following study findings are summarised:

In answer to research question 6, the study found that international students' perspectives on OHS education were shaped by academic backgrounds and experiences. Some students viewed OHS education as generically broad and boring. However, in a university context, OHS education was perceived as necessary and compulsory before commencing their study. In addition, knowledge of standards, procedures and hazards/risks were necessary in a part time job outside the university environment.

Furthermore, in answer to research question 7, the findings from this study showed that the current practices of OHS education within the University differed between the schools of engineering and social sciences. Participants from engineering claimed that the University put more emphasis on OHS information, education and training, particularly for standard operating procedure that were integral to their study project. Students from social sciences thought there was lack of University attention paid to OHS awareness. Most participants reported that the University delivered OHS information and education through OHS inductions, OHS lectures, OHS video on the University website, and by emails. However, most participants argued that the content of OHS information focussed on security and safety within the University environment, and emphasised that there was little or no consideration of work outside of the University.

Finally, in answer to research question 8, based on international students' perspectives, it was found that the role of the University in OHS education was seen as providing basic knowledge and awareness, including general consideration of rights and responsibilities, and workplace hazards. However, it is not seen as a replacement for specific job training provided by employers

## **5.5 Discussion**

Besides earning money, this study found that there were some other reasons for international students to be involved in the Australian workplace. On the one hand, some participants revealed that the high living costs in Australia compared to their home country and family reasons pushed them to work and get extra money to support their living life.

On the other hand, some participants maintained that improving their English, adjusting to the local culture and making friends were the main reasons to get involved in the Australian workplace. This finding is consistent with Lawson (2012) who maintained that working experiences would help international students to make friends and to battle issues associated with cultural barriers and language problems.

However, it was not surprising when many participants experienced the negative impacts of working while studying when they had longer working hours (more than 20 hours per week) and worked night shifts. The finding from this study suggested that tiredness, sleepiness, sickness and stress were the main factors leading to a failure to balance earning and learning. This finding is similar to some studies study conducted in Australia (Vickers et al., 2003; De Zoysa and Rudkin,

2007) and in the USA (Golden and Baffoe-Bonnie, 2011), which found that the detrimental effects of longer working hours are exponential to the students' academic performance.

Interestingly, this study also found that not all participants experienced negative impacts on their academic performance due to having paid jobs. Some participants expressed that they do not have any problems to balance earning while learning when the jobs were on holidays, or on the weekend, or the working hours did not exceed 20 hours a week, or had some flexibility. Some participants even felt that there was no conflict at all and they focused on studying rather than working.

This study also presented an important finding about international students' awareness of the potential impact of paid employment on health and safety. Only a few of the participants were aware of the potential hazards and risks they face in the workplace. In contrast, many of them declared that they are not concerned about the risks. This attitude is a common characteristic of young workers, who tend to display risk-taking behaviours, which is in turn a major contributing factor to injury (Meek, 2007; Tull, 2009; Robotham, 2012). As a result, some of participants disclosed that they had experienced accidents and injury in the workplace. In order to prevent accidents and injuries, this finding suggests the University could provide appropriate OHS education to protect international students workers.

Turning to international students' perspectives on OHS education, the study presented evidence that international students have different points of view. It was found that their perspectives on OHS education were based on their experiences and academic backgrounds. The participants revealed that, in the University context, OHS education was perceived as compulsory or requirement matter. And,

in the workplace context, OHS education was perceived as relating to standard operating procedure and hazards/risks awareness.

Furthermore, the results indicate that currently different practices of OHS education exist within the University. On the one hand, participants from the engineering school claimed that the University put more emphasis on OHS information, education and training for engineering students, particularly in relation to standard operating procedure which are integral to their research projects. On the other hand, students from social sciences expressed their belief that there was lack of University attention to providing appropriate OHS information; some argued that these students should in fact receive more attention from the University in these matters, since they face different risks in the social sciences study environment.

This study provides evidence that most participants were aware that the University has delivered OHS information and education through an OHS induction, OHS lectures, an OHS video in the University website, and email. However, they argued that the content of the OHS information provided focussed only on security and safety in the University environment, and was therefore inadequate to protect them from potential risks in the workplace.

According to most participants, the University had 'zero' concern for OHS education for international students who have part time jobs. In other words, the University is not concerned about international students' working life outside the University. As a result, no relevant OHS information, services, advice and support was provided by the University to improve international students' awareness, knowledge and skill to work safely and avoid accident and injury in the workplace.



Importantly, this study revealed that most participants agreed that the University should provide some form of compulsory OHS course for international students who have part-time jobs, and should offer an optional course for others. Furthermore, this study found that OHS training accompanied by a completion certificate was desirable. This is in line with SafeWork SA (2013), which insists that the integration of sufficient OHS education and training for students will prepare students for gaining OHS as a core value in their lifelong education.

Related to the role of the University in teaching OHS, most participants suggested that the teaching should contain generic or basic all-inclusive OHS issues in the workplace. This finding is consistent with Pisaniello et al. (2013), who argued that the key learning outcomes from OHS education provided by high school were basic OHS knowledge and awareness, but can never replace specific job training provided by employers.

### **5.5.1 What should be done for improvement?**

This study has unearthed a range of responses regarding what international students believe the University should do to improve the ways it prepares students to work safely beyond the campus environment. Overall, most of the participants agreed that the University should pay attention to health and safety issues among international student employees. This will need a shift from the University being ‘zero concerned’ to being ‘a hero’ in its provision of OHS education.

The two main issues that emerged for international students were that the University should: 1. teach directly about hazards and risks in the workplace; 2. ensure students are well informed about their rights and responsibilities in the workplace. As mentioned above, many participants felt that the University should

provide some kind of occupational safety introduction which encompasses at least basic OHS knowledge and awareness for the workplace.

Furthermore, most participants suggested that OHS information should be delivered through email, noticeboards in Hub Central or by creating an OHS week. Regarding OHS training for international students who have paid employment, it was highlighted that the training should be practical, fun, attractive and simple; this would increase its effectiveness and make it more relevant to the workplace. This finding is consistent with other research which maintained that the training methods using case studies, interactive face-to-face sessions and sharing experiences of peers in relevant industries would be of benefit because they improve student engagement (Pisaniello et al., 2010; Rothmore et al., 2011; Shallcross, 2013).

In addition, this study proposed that the University create an OHS unit or OHS officer to provide consultations regarding OHS issues that arise in the workplace; this could help to protect international students from exploitation. Lastly, it was recommended to the University to conduct a survey in order to have a database about international students engaged in paid employment and to address students' needs in terms of relevant OHS training in the workplace.

## **5.6 Strengths and limitations**

This is the first study in Australia to focus on international students' perspectives on the role of the University in OHS awareness raising and education. Focus groups were an appropriate method for examining and exploring what, how and why students think about the OHS education they receive and the role of the university in teaching OHS, without placing participant under any pressure to reach consensus or make a decision (Liamputtong, 2011). Furthermore, this approach is

well known as an ideal method for obtaining views, beliefs, knowledge and concerns through shared experiences among the participants (Kitzinger, 1994).

Furthermore, the method allows the participants to interact and present their diverse understanding which could remain underdeveloped through an in-depth interview approach. When focus groups are carried out properly, the researcher can gain an understanding of the patterns of similarities and differences in point of views by age, gender, social group and so on (Conradson, 2005). Finally, this method provided possibilities to interact directly with students in order to probe and clarify their responses (Stewart and Shamdasani, 2014).

Turning to the limitations, similar to other methods, focus groups do not suit the entire set of research aims for this project. There are some problematic issues that could be found inappropriate for the research objectives (Liamputtong, 2011). For example, the research participant might not be sufficiently proactive to become involved in the group discussion due to the contents being too personal or unsuitable (Smithson, 2000).

Furthermore, this study was conducted in only one university, so other universities might offer much more OHS training than this and other students may have had very different experiences. Moreover, this study did not seek the perspectives of lecturers, the University staffs and leaders, and regulatory body (SafeWork SA) that play important role to integrate OHS education into the University curriculum and policy making.

## **5.7 Conclusions**

This study has revealed many aspects of international students' experiences of OHS education and training. Focus groups have provided a detailed picture of how these students perceive the current practices of OHS education; the potential conflict between working and studying; and the potential role of the University in OHS awareness raising and education. A proposal for providing effective OHS education for international student workers aimed at reducing vulnerability and improving their adaption to the workplace, is discussed in the next chapter.

# Chapter 6

## GENERAL DISCUSSION

## CHAPTER 6. GENERAL DISCUSSION

*“By identifying risk factors, we will be in a better position to make recommendations for reform” (Sargeant and Tucker, 2009)*

This chapter discusses and integrates the key findings of research described in earlier chapters in relation to published work, including conceptual frameworks of worker vulnerability and OHS education. It also addresses the strengths and limitations of the research, and highlights its significance. Furthermore, the implications of the research are considered.

Specifically, the findings from the two statistical reviews and the online survey provide multiple lines of evidence about international students' vulnerabilities in the workplace. It is argued that this evidence supports the development of a conceptual framework of OHS vulnerability, as it relates to international students. It is also argued that the findings from the qualitative strand of the research contribute to important understandings of international students' OHS education needs: - how it is to be delivered and how it might be structured effectively inside or outside of the University's formal curriculum.

### **6.1 Introduction: novelty of the research**

This research is the first of its kind in Australia to explore international students' working experiences and injury experiences simultaneously, and in a mixed methods approach. Many previous studies have explored migrant workers' as well as young workers' vulnerability in the workplace (Corvalan et al., 1994; Miller and Kaufman, 1998; Delp et al., 2002; McCauley, 2005; Lindhout and Ale, 2009; Jahan et al., 2010). However, work-related injuries among international students as young migrant workers have not been investigated in the Australian

workplace context. Furthermore, the role of the University as a potential education provider, OHS awareness raising in relation to external work, has hitherto not been explored.

## **6.2 Key findings in the context of existing literature**

This section presents an integrated summary of the main findings from previous chapters with commentary in the light of other published literature. The key findings in relation to the research questions are presented, commencing with the statistical reviews and followed by the two empirical studies: the online survey and focus group discussions.

### **6.2.1 Statistical reviews**

#### **6.2.1.1 *Workers' compensation dataset analysis***

##### **6.2.1.1.1 *Time trends and likely claims behaviour***

The statistical review of South Australian workers' compensation claims revealed a gradual decrease in the number of undifferentiated claims among young workers over the time period 2004-2013. The subset of claims defined as serious injuries also tended to decline, although this was less obvious. This result is consistent with other research, which found that young workers' injury experiences decreased from 1998 to 2007 in South Australia (Jahan et al., 2010). Similarly, the corresponding national statistics for the period 2000-2006 revealed that the number of serious claims declined by 16% (Australian Safety and Compensation Council, 2009).

However, when it comes to the proportion of serious injury claims out of all South Australian claims, using variables characteristic of young migrant workers, the trend was a plateau or an increase over the ten-year period (Fig 3.4 and 3.7).

The reasons for this are not clear, but may relate to an increasing number of young migrant workers in the period, in conjunction with not making a claim until the injury was significant.

This would be consistent with a Safe Work Australia report, where in comparing workers compensation data with Australian Bureau of Statistics survey data, Safe Work Australia concluded that in 2005–06 young people were less likely to claim workers' compensation than older workers (Safe Work Australia, 2009). International students are usually in precarious working arrangements, and making a claim is likely to be seen as jeopardising continuing employment – even more so than for local students.

#### *6.2.1.1.2 International student demographic variables as risk factors for serious injury*

Relatedly, when exploring predictive factors for making a compensation claim, multivariate analysis (Section 3.2.3.2) found that being a non-Australian born, non-English speaking background (NESB), older young worker (20-24 years old), female, new worker, small/medium company worker, night shift worker, outdoor worker and non-self-insured company worker were statistically significant risk factors. The first three characteristics are commonly exhibited by international students (SafeWork SA, 2013) and suggest that international students are in a greater risk of experiencing serious injury in the workplace. *Collectively, the workers' compensation data analyses represent a first line of evidence for vulnerability for international student workers, in terms of serious injury.*



### **6.2.1.2 International Student Barometer (ISB) 2013 data analysis**

In contrast to the workers' compensation dataset, the International Student Barometer is specific for international students. Analysis of the 2013 ISB survey supports published claims that international students are being exploited and underpaid in the workplace (Parkin, 2008; Howe, 2013; Watson, 2014; McNeilage, 2015; Chau, 2015). More than 50% of respondents indicated that they were paid below the legal minima. *Being knowingly underpaid can be considered a second line of evidence that students are vulnerable.*

Male students were more likely to be in paid employment than female students and there was a gap between male and female overseas students concerning their average income. This finding is consistent with Workplace Gender Equality Agency (2015) that revealed the same results in their data from 2013 to 2014; in general, female workers earn statistically less than male employees. Due to variable participation in paid employment, these data do not suggest any particular vulnerability according to gender. However, other data from Safe Work Australia (2009) suggest that females are less likely to make a claim than males.

### **6.2.2 Online survey**

This study explored international students' reasons for work, working experiences, OHS training experiences, injury experiences, and the conflict between working and studying. Furthermore, the study investigated the risk factors of international students' injury experiences and work-study interference.

### **6.2.2.1 Reasons to work**

The survey data suggest that the main reasons for employment are (1) to provide extra disposable income; (2) to offset basic living costs, and (3) to supplement living allowances. However, about 30% of respondents revealed other important reasons; (4) to improve their English, and (5) to understand Australian culture. These findings are consistent with the Australian Education International (AEI) report which maintained that working while studying can help international students to support themselves and to make friends (Lawson, 2012).

Although there was no specific online survey question on pre-arrival employment information, potential students can access websites that promote the benefits of working in Australia (Study in Australia, 2015), e.g. it is explained that working while studying will complement international students' study and living experiences in Australia. Hence, it is likely that many international students are being encouraged to work in Australia before they arrive.

On the other hand, unions have recently launched a website (<http://welcometowork.com.au/>) advising international students of employment issues, notably industrial relations rather than OHS. The Welcome to Work campaign is being sponsored by SDA, the largest trade union in Australia, and representing, *inter alia*, workers in retail and fast food.

### **6.2.2.2 International students' working experiences**

The online survey found that most international students worked in part time jobs (55%), casual jobs (39%) and seasonal jobs (5%). Regarding the sector of industry, most of them worked in restaurants (42%), supermarkets or groceries (21%), cleaning jobs (13%) and in the agriculture sector (6%). This finding is

consistent with other research which found that most international students work in the hospitality, agriculture sectors and in cleaning jobs (Nyland et al., 2009; Anderson et al., 2011a). The abovementioned employment arrangements are predominantly precarious. A considerable body of evidence suggests precarious employment is a (negative) social determinant of worker health (Benach et al., 2014). *This precarious employment may be considered a third line of evidence for vulnerability.*

### **6.2.2.3 OHS training experiences**

More 60% of international students reported that they did not receive any OHS training before commencing their work. Further, more than 10% of the total survey respondents revealed that they had experienced injury in an Australian workplace.

Interestingly, almost 50% of those experiencing injury experienced their injury *after* completing OHS training. This finding casts some doubt on the effectiveness of OHS education and training provided by the university (53%) and the workplace (41%). As will be shown later, the findings from the focus group discussions also support this when most participants maintained that OHS education provided by the University was not relevant to the workplace. Hence, it cannot be expected that safety knowledge, *per se*, will obviously lead to safe behaviour and reduce injuries in the workplace (Pisaniello et al., 2013).

Furthermore, the results from bivariate analysis (Table 4.2) revealed that having OHS training experience was not statistically significantly associated with injury. This is consistent with other research which found that safety training programs were not statistically significantly associated with severe injuries among

young workers (Zierold and Anderson, 2006). These findings provide evidence to question the relevance of the OHS training obtained in the university to real the workplaces and highlight ineffectiveness of the workplace training to be translated into safe behaviour among international students. It is evident that current training needs to be improved in order it to be an effective intervention for injury mitigation. This will be discussed later in Section 6.5.2. *The lack of OHS training can be considered a fourth line of evidence for vulnerability.*

#### **6.2.2.4 Conflict between working and academic performance**

Turning to the potential conflict between earning and learning, more than 60% of students felt that working activities interfered with their study, whereas about 70% of them claimed that tiredness was the main form of work-study interference, followed by timetable clash (30%). From the multivariate analyses, being a second year student, perceiving to have unfair wages and being less confident in OHS issues were found to be important predictive factors of tiredness and therefore likely to impact on study performance. There appears to be no comparable findings in the literature, specific to international students (Section 4.5.8). That said, it is likely that only certain working arrangements determine vulnerability and/or adversely affect academic performance. See later in Section 6.2.3 and 6.5.1.

#### **6.2.2.5 Predictive factors of injury experiences**

Results from the online survey data analysis demonstrated that being less confident in discussing OHS issues, (Adjusted Odds Ratio = 2.17; CI: 1.13-4.16), working 20 hours or more per week (AOR = 2.20; CI: 1.03-4.71), perceiving unfair wages or feeling exploited (AOR = 2.42; CI: 1.24-4.71) and being a second year

student (AOR = 2.69; CI: 1.04-6.96) were significantly associated with injury experience among international student employees.

These findings are consistent with research conducted elsewhere. Vickers and co-workers (2003) found that students who were engaged in the workplace 20 hours or more per week were 1.6 to 2.0 times more likely to drop out from their study than those who worked less than 20 hours a week. The finding from this study also is consistent with US research about occupational injuries among university students which revealed that heavy workload is a risk factor for student employees to experience one or more injuries in the US workplaces (Ou and Thygeson, 2012).

With respect to the students' confidence in OHS issues, previous studies suggest that there is a strong association between safety training and skill and confidence of incoming university students (both local and international) in South Australia (Thamrin et al., 2010). However, focusing on international students, the online survey findings showed that students who were less confident in discussing OHS issues were more than twice as likely to experience injury in the workplace and 1.7 times as likely to report tiredness as a form of work-study interference. *Thus online survey findings provide a fifth line of evidence of international student vulnerability in Australian workplaces, namely lack of confidence.*

These analysis of individual risk factors of international students' injury experiences lead to recommendations for intervention (Sargeant and Tucker, 2009), and these are given in Chapter 7 (Recommendations).

### **6.2.3 Focus group discussions**

#### **6.2.3.1 *Reasons to work***

Similar to the findings from the online survey, this study found that international student' reasons to work while study, were not all about to earning money, improving their English, having cultural adjustment and making friends were other reasons to get involved in the Australian workplace.

This is consistent with the Report of Australian Education International (2012) about student voices related to enhancing the experiences of international students in Australia. This Report revealed that working while studying can improve international students' adjustment in Australian society - making friends beyond their class mates and gaining opportunities to develop attributes for their future jobs that employers consider valuable in the workplace.

Relatedly, Manthei and Gilmore (2005) indicated benefits when students can manage their working hours to suit their course load. Moreover, working while studying at a modest level can improve students' academic success and learning process and enhance students' employability and organisation skills (McInnis and Hartley, 2002; Pascarella et al., 1998).

#### **6.2.3.2 *Conflict between working and academic performance***

Unsurprisingly, some participants revealed that they experienced negative impacts of having paid employment when they had long working hours since this is consistent with the finding from the online survey and elsewhere (Vickers et al., 2003; Ou and Thygerson, 2012; De Zoysa and Rudkin, 2007; Golden and Baffoe-Bonnie, 2011)

However, when the jobs were in vacation periods, on the weekend, or when the working hours not exceeded 20 hours a week or its time flexible, some participants maintained that there was no conflict at all.

#### **6.2.3.3 Hazards and risks perception**

Some participants stated that they did not care about the risks and still performed risky tasks. This may reflect the general characteristics of young workers who tend to have risk taking behaviour – which, in turn, is a major contributing factor to injury (Meek, 2007; Tull, 2009; Robotham, 2012). This perception has implications for how OHS education is delivered (see later). *Self-reported risk taking behaviour can be considered a sixth line of evidence for student vulnerability.*

#### **6.2.3.4 Current practices of OHS education and its relevance to the workplace**

Turning to current practices of OHS education within the University, this study found that student perspectives towards OHS education was shaped by their experiences and study backgrounds. There was a different emphasis of OHS education between the University schools of engineering and social sciences. Whilst the University had delivered OHS information and education the focus group participants felt that it focussed on students' security and safety around the University environment and had no connection with international students' working life.

This finding could be viewed in the light of the result from the online survey where about 45% of them experienced injury *after* completing OHS training. The findings support calls for training to be more relevant to the workplace and influencing safety beliefs (Blair et al., 2004; Pisaniello et al., 2010).

#### ***6.2.3.5 Support to integrate OHS into the University's curriculum***

Most of the students' comments about integrating OHS in the curriculum were related to the OHS induction for incoming international students. More than a half of the suggestions referred to a need for OHS topics to be included in current inductions for incoming international students.

It was suggested also that the quality of OHS education would be improved if it was also formally integrated in the curriculum. Suggestions were in favour of making the topic as an optional course for all international students and a compulsory course for those who have paid employment.

Several studies (Pisaniello et al., 2010; Rothmore et al., 2011; SafeWork SA, 2013) contended that integrating OHS education and training into formal education, including schools and tertiary institutions, will instil OHS as a core value of their life.

Focus group participants felt that OHS training should be standardised with assessment provided. A certificate of completion would help international students to be more employable in the workplace. This is consistent with Australian Education International (2012) report who maintained that a resume, certificate or covering letter from educational institutions including a university will help international students to find jobs.



#### ***6.2.3.6 The role of the University in OHS education***

The qualitative study suggests that the role of the University in providing OHS education for international student employees is to provide generic or basic knowledge, awareness or training related to all-inclusive OHS issues such as rights and responsibilities and hazards and risks in the workplace. It is not seen as a replacement for job/task-specific training provided by the employer.

In respect of the University providing OHS training and a certificate on completion, it was felt that some students would not mind paying a fee for participating in the OHS training.

#### ***6.2.3.7 Suggestions for improvement***

In terms of the mode of delivery, highly engaging and participatory training methods have been demonstrated to be most effective in promoting greater knowledge acquisition (Burke et al., 2006). Furthermore, a face-to-face component incorporating case studies, videos and class discussion, and real-life workplace experiences could be included to improve OHS teaching (Burke et al., 2006; Salminen and Palukka, 2007; Thamrin et al., 2010; Pisaniello et al., 2013).

In keeping with these ideas, most participants from the focus groups suggested that OHS education and training should be more student-friendly – i.e. attractive, simple and fun. Using appropriate technology during OHS sessions will improve engagement (Rothmore et al., 2011).

The findings from the both online survey and focus group discussions showed that including OHS education in the existing induction programs for international students such as English for Academic Purposes (EAP) or Integrated Bridging Program (IBP) were preferable in the first year of study. Almost 40% of the survey participants maintained that separate or additional OHS

workshop/training should be provided for international students as an optional course in the first and second year of their study. However, for those who have part time job, it should be compulsory study.

With respect to international student's empowerment, some participants also suggested that the University central OHS Unit provide consultation services, advice and help on OHS issues in the workplace – i.e. outside their formal study. This would require a change in the scope of responsibility for the OHS Unit. Traditionally the Unit has not been concerned with student OHS issues beyond the general duty of care. It is only in the last 3 years, with the Work Health and Safety Act (SA), that some students (typically postgraduate students) have been considered as workers within the University system.

Finally, the focus group discussion data highlight the need for the University to shift its concern on OHS education for international student employees from “zero to hero”.

### **6.3 Strengths and limitations of the research**

The strengths and limitation for each element of the mixed methods research design are addressed in turn, i.e. for the statistical reviews, online survey and focus group discussions.

#### **6.3.1 Statistical reviews (Workers' compensation dataset and ISB survey)**

This is the first study in Australia to explore young migrant workers injury experience using workers' compensation data over an extended period.

However, the dataset does not have a specific code for international students, and only an indirect assessment was possible. Moreover, the dataset only contained compensation claims from formal industry sectors without capturing

informal or illegal working where many international students are assumed to be involved. Hence, it is likely to be an under-representation of the injury issue.

Turning to ISB survey data, a major strength of this study is its scale-more than 1600 students participated in this survey. In addition, the findings of this research are likely to be reliable since it was administered by an independent research company without any intervention from the University.

However, there were some limitations of the ISB survey. As mentioned, the survey was designed to explore international student's satisfaction, and not specifically to assess student's working experiences. The very limited questions related to the latter did not allow for exploration of injury experiences and interferences with study.

### **6.3.2 Online survey**

The major strength of this study is that this is the first research which analyse international students' working experiences and OHS training experiences in its association with injury experiences and work-study interference. The survey was conducted online with 719 participants who generating 466 complete responses. Thus, it is also a moderately large survey.

However, the survey also has some limitations. The survey was conducted only in one university and it was a snapshot (cross sectional study). As a result, the associations between risk factors and outcome variables will not be as diagnostic as in a longitudinal study (Sedgwick, 2014).

On the other hand, in view of the characteristics of the University of Adelaide as a typical metropolitan university of moderate size, the data might be comparable with that of other Australian universities. In support of this assertion, a

previous study among incoming undergraduate students regarding their previous OHS experience at work and OHS perceptions conducted by Aumann et al. (2007) revealed comparable features between the University of Adelaide and three other Australian universities This is represented in Table 6.1.

Table 6.1. OHS experience and perceptions among incoming undergraduate students: A comparison of four Australian universities

| Categories                             | U of Adelaide (%) | Univ A (%) | Univ B (%) | Univ C (%) |
|--|-------------------|------------|------------|------------|
| <b>Previous OHS experience at work</b> |                   |            |            |            |
| Work experience                        | 80                | 88         | 87         | 80         |
| Training OHS in University             | 4                 | 2          | 6          | 4          |
| Assessed on training                   | 53                | 64         | 55         | 47         |
| Injury at work                         | 9                 | 10         | 14         | 10         |
| Witness of serious injury at work      | 11                | 14         | 15         | 16         |
| <b>OHS perception</b>                  |                   |            |            |            |
| Skill and confidence in OHS            | 58                | 71         | 63         | 58         |
| Feel strongly about:                   |                   |            |            |            |
| a. Personal safety                     | 75                | 75         | 63         | 65         |
| b. Bullying                            | 52                | 57         | 51         | 44         |
| c. Workplace safety                    | 86                | 87         | 80         | 76         |

Adopted from Aumann et al. (2007)

With respect to the characteristics of international students in the University of Adelaide, Table 6.2 provides evidence of comparability of this sub-population with the population of all international students in Australia. For example, the gender distribution is similar between the University of Adelaide and Australia.

Furthermore, the profiles of international students based on country of origin and study program in The University of Adelaide and in Australia also show similarities.

Table 6.2. International students' profiles in the University of Adelaide and in Australia

| Number of international students | U of Adelaide (%) | Australia (%) |
|----------------------------------|-------------------|---------------|
| <b>Gender:</b>                   |                   |               |
| a. Female                        | 46*               | 47**          |
| b. Male                          | 54*               | 53**          |
| <b>Country : ***</b>             |                   |               |
| a. China                         | 36                | 25            |
| b. Malaysia                      | 11                | 6             |
| c. Indonesia                     | 8                 | 4             |
| d. Singapore                     | 5                 | 3             |
| e. Vietnam                       | 5                 | 4             |
| f. Hong Kong SAR                 | 4                 | 3             |
| g. Brazil                        | 3                 | 2             |
| h. India                         | 2                 | 9             |
| i. Other                         | 26                | 44            |
| <b>Study program: ***</b>        |                   |               |
| a. Undergraduate                 | 45                | 48            |
| b. Postgraduate coursework       | 38                | 37            |
| c. Higher degree research        | 17                | 12            |
| d. Other                         | 0                 | 3             |

Sources:

\* Planning and Performance Reporting, The University of Adelaide (2015)

\*\* Australian Education International (2015)

\*\*\* Brett (2015)

Hence, even though this research was conducted in only one university it can be argued that the data and findings are likely to be more and less similar for other Australian universities.

However, it is questionable as to whether the generalise ability extends to TAFE or high school students. In the case of the former, trade courses are likely to have a more significant and explicit OHS component. In the case of the latter, the students are younger. These international students were not explored as part of this research.

### **6.3.3 Focus Group Discussion**

This is the first Australian study to address international students' perspectives on the role of the University in OHS awareness raising and education. There were three focus groups that consisted of participants with wide range of age, gender study backgrounds, countries, study programs and industry sectors. The conduct of the focus group discussions was appropriate for exploring what, how and why students think about the OHS education and the role of the university in teaching OHS without give them any pressure to reach consensus or makings decision (Liamputtong, 2011). Furthermore, focus groups are well suited for obtaining views, beliefs, knowledge and concerns through shared experiences among the participants (Kitzinger, 2003).

One of the limitations of this research was that it did not seek the views of teachers/lecturers, University professional staff and senior administrative staff, and stakeholders such the regulatory body (SafeWorkSA) and accrediting bodies. They are likely to have important roles in terms of policy making, e.g. with respect to the integration of OHS topics into the University curriculum.

## **6.4 Summary of the research findings**

Young workers are over-represented in injury statistics. Among this group are migrants and international students, who represent a significant and rising proportion of young workers. A number of lines of evidence, presented earlier, indicate the nature of the vulnerability can be seen in Table 6.3.

Table 6.3. International student workers' conditions of vulnerability

| <b>Lines of Evidence</b>  | <b>Conditions of Vulnerability</b>   |
|---|--|
| <i>First line of evidence</i> that students are vulnerable – Statistical reviews  | The workers' compensation data suggesting that international students are more likely to experience serious injury |
| <i>Second line of evidence</i> that students are vulnerable – Statistical reviews   | Being knowingly underpaid  |
| <i>Third line of evidence</i> that students are vulnerable – International student online survey  | Being in precarious employment   |
| <i>Fourth line of evidence</i> that students are vulnerable – International student online survey   | Inappropriate or no OHS training relevant to the workplace   |
| <i>Fifth line of evidence</i> that students are vulnerable – International student online survey  | Lack of confidence in discussing OHS issues  |
| <i>Sixth line of evidence</i> that students are vulnerable – International students' perspective on the role of the University in OHS awareness and education | Risk taking behaviour  |

International students may have a greater number of vulnerabilities than local students because of language and cultural factors and potential debt burdens. The nature of the available work may result in other issues such as study interference. International students identified the University as a potential provider of information and support, addressing some of these vulnerabilities.

## **6.5 Towards conceptual frameworks**

The findings of the research lead to a new understanding of international students' vulnerabilities in the Australian workplace. In the following sections, these concepts are linked with existing conceptual frameworks and may support the development of an improved conceptual framework.

### **6.5.1 Development of a conceptual framework of international students' vulnerabilities in the Australian workplaces**

A conceptual framework can be described as a written or visual product, either in narrative or graphically form which explain the presumed relationships of the key factors, variables or concepts (Miles and Huberman, 1994). To suit the research enquiry, it might be an adaptation and modification of a model used in the previous study (Maxwell, 2005).

In order to develop a useful conceptual framework for international students' vulnerabilities in the workplace two steps were taken: firstly, identifying and examining relevant literature; then combining that literature with the research findings.

#### ***6.5.1.1 Identifying relevant literature***

Three main areas of literature were identified as relevant sources in order to develop the conceptual framework. Firstly, Sargeant and Tucker's (2009) framework of migrant workers' vulnerabilities in the workplace comparing the situation of migrant workers in Canada and the UK in order to reach a new understanding of the risk factors for OHS regulation and view the effectiveness of institutional responses for both countries. According to this model, there are three main layers of migrant workers' vulnerabilities:



- migration factors;
- characteristics of migrant workers; and
- receiving country conditions (macro conditions).

Secondly, adopting this, Anderson et al. (2011a) produced a model with layers of young workers' vulnerabilities.

- Layer one is the prevailing political, social and economic factors, for example, the conditions in which young workers are employed; access to, and strength of, collective representation; access to, and strength of regulatory protection; social inclusion/exclusion; living on employer premises; urban/rural location; role of unions/civil society group (e.g., Church and community groups).
- Layer two refers to employment factors, including employment status and whether employment status is tied to legal protection, wages regulations and conditions.
- Layer three is individual worker factors. This layer contains reasons for working, such as socio-economic conditions; the education, language and skill levels of the young workers; and the availability and access to appropriate work.

Thirdly, in 2015, the United States National Institute of Occupational Safety and Health (NIOSH) published a new model to capture the overlapping vulnerabilities among young immigrant workers in small construction firms and the implications for OHS professionals (NIOSH and ASSE, 2015). The model described how social dynamics (age or being a young worker, gender, race, and class), economic trends (immigrant or temporary workforce growth) and

organisational factors (business size) were the three main contributors to the greater vulnerability for occupational illness and injury among young immigrant workers.

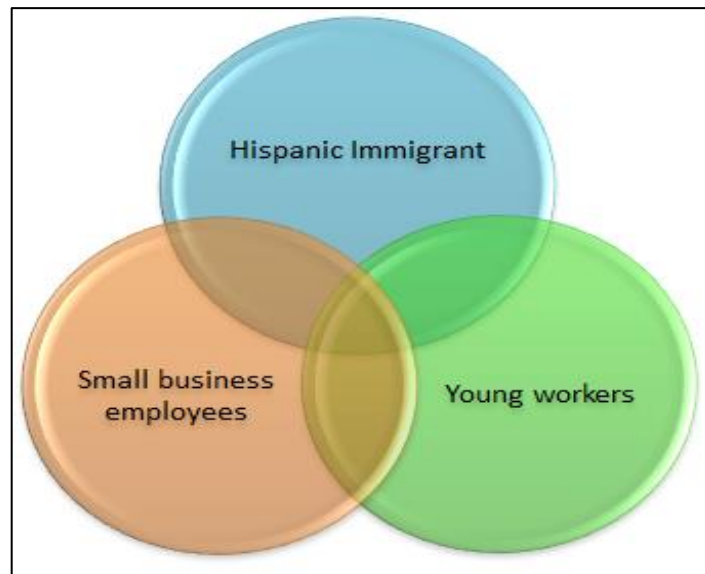


Figure 6.1. Overlapping OHS vulnerabilities among young immigrant workers in small construction firms (NIOSH and ASSE, 2015)

However, the three models outlined above were not focused on international students as a subgroup of young migrant workers. There are some specific considerations for this subgroup of the workforce which are different from general young workers, general migrant or immigrant workers<sup>2</sup>. Hence, a new framework that addresses the situation of international students is appropriate.

#### ***6.5.1.2 Integrating the literature and the research findings***

Integration of the research presented in earlier chapters suggests a modified conceptual framework of international students' vulnerabilities, diagrammatically illustrated in Figure 6.2.

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<sup>2</sup>A migrant worker is defined as someone who has migrated to another country to take up work and who does not have a permanent status in the receiving country. 'Immigrant' is similar to 'migrant' but means the person has already obtained permanent residency status (Sargeant & Tucker 2009).

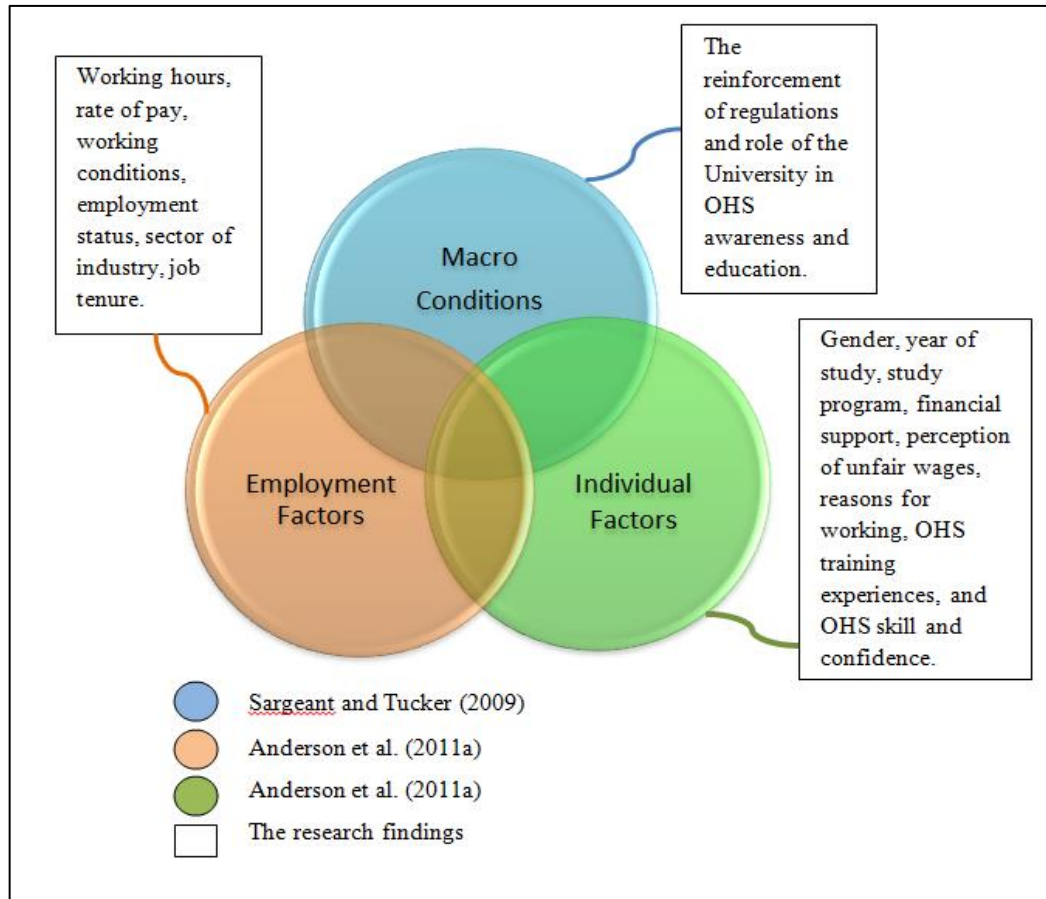


Figure 6.2. Integrated conceptual framework of overlapping layers of vulnerabilities among international students in the workplace

The modified conceptual framework of international students' vulnerabilities incorporates macro conditions (Sargeant and Tucker, 2009); employment factors (Anderson et al., 2011a); and individual factors (Anderson et al., 2011a). The modified framework also allows for the notion of intensified occupational injury and illness for those who experience the overlapping vulnerabilities outlined in Figure 6.1, e.g. international students (NIOSH and ASSE, 2015).

Of course, not all international student workers are vulnerable and not all of them will suffer from the detrimental effects. For example, those who are working in the formal sector less than 20 hours per week, working on the weekend or

holidays, who have flexible working times will not be as vulnerable as their peers who work in the illegal work sector with a greater number of working hours.

### **6.5.2 Integrated conceptual framework of effective OHS education for international students to reduce vulnerability and to improve adaptation to the workplace**

The research presented in this thesis considered the role of the University in reducing vulnerability. The University has the potential to play a role in terms of workplace injury prevention among international students and improving their adaptation to workplace; indeed, it is possible to regard this as a crucial part of its social responsibilities as an international education provider and a sponsor of international students into the local community. Considering the University as a provider of OHS awareness and education, a framework of effective OHS education for international students is described below.

The most common model in the field of curriculum development is Tyler's model, which was developed in 1949. This model is commonly known as the objectives model, but is also sometimes called the sequential, rational, logical, scientific, classical, or means-end model (Brady 1990). The rationale for the model was based on four central questions:

1. What is the purpose of the education? (stating objectives)
2. What educational experiences will attain the purposes? (selecting learning contents)
3. How can these experiences be effectively organized? (organizing learning experiences)
4. How can we determine when the purposes are met? (evaluation).

Added to this model are three key main components of curriculum planning proposed by Lunenburg (2011): objectives (where are we going), content (what), and learning experiences (how). Together, these elements can be used to design a conceptual framework of effective OHS education among international students as depicted in Figure 6.3, and outlined below.

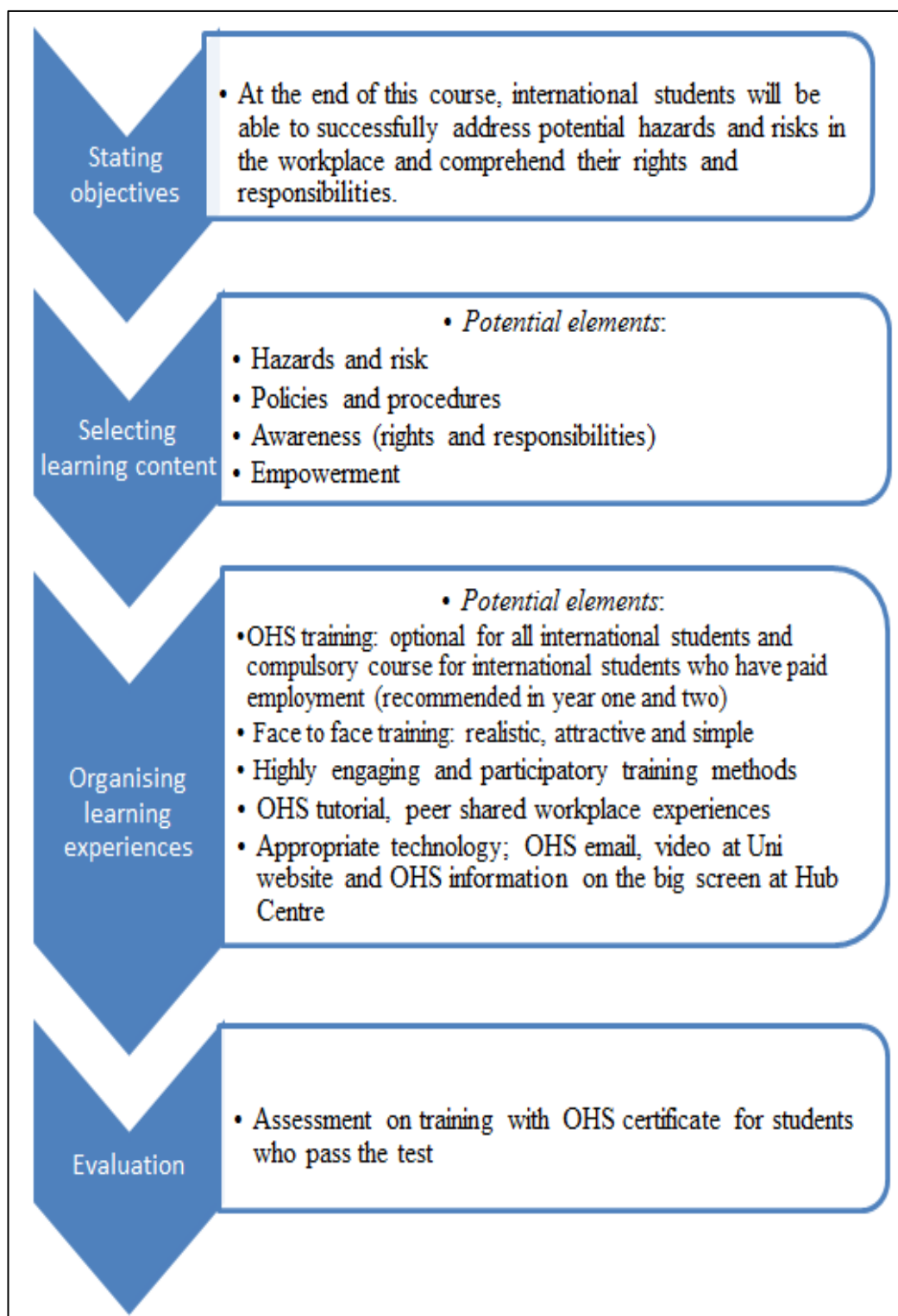


Figure 6.3. Integrated conceptual framework for effective OHS education for international student workers

### **6.5.2.1 *Stating objectives***

An objective is a statement of intent describing an anticipated change in the learner, usually described in terms of expected outcomes (Williams, 2011). One of the most commonly used qualifying adjectives applied to the word ‘objective’ is ‘behavioural’ (Lunenburg, 2011). Brady (1990) suggested that successful behavioural objectives will meet the following requirements: the behaviour expected to realise the objective; the condition under which the behaviour will occur; and the acceptable standard of performance.

Following those criteria, the learning objectives of this model is: “At the end of this course, international students will be able to successfully address potential hazards and risks in the workplace and comprehend their rights and responsibilities”.

### **6.5.2.2 *Selection of content***

In 2015, the development of a conceptual model and self-reported measure of occupational health and safety vulnerability was undertaken by Smith et al. (2015). This model provided 29 items to measure four main areas that correlated with high risk of injuries (see appendix 12); most of these areas are inextricably linked to findings of this research. Thus, by adopting Smith’s conceptual framework and marrying it with the findings from this research, four main content areas have been chosen for this model; hazards and risks in the workplace, policies and procedures, awareness of rights and responsibilities, and empowerment.

### **6.5.2.3 Organising learning experiences (selection of method)**

Method in this context refers to how the teacher employs the content (Brady, 1990). On basis of the research findings, it is recommended that the University provide OHS training for all international students who have paid employment as a compulsory course and as an optional course for all international students in general. Study two (online survey) found that being a second year student is one of important predictive factors of students' injury experience. Hence, it is suggested that the training is provided not only for the year one students but also for the second year students.

The mode of delivery for a course should be developed in consultation with stakeholders. In this case it should include the International Student Centre (ISC), head of schools/disciplines, university OHS officers and employers. In addition, the characteristics of young people should be addressed, e.g., the tendency to engage in risk-taking behaviour, the influence of peer pressure and the influence of co-workers.

Highly engaging and participatory training methods have been demonstrated to be most effective in promoting greater knowledge acquisition. A face-to-face component incorporating case studies, videos and class discussion, and real-life workplace experiences could be included to improve OHS teaching. Most participants from the focus groups suggested that OHS education and training should be more student friendly by being attractive to avoid boredom, simple and fun. Using appropriate technology such as OHS email and OHS information displayed through the big screen in some areas will improve engagement.



#### **6.5.2.4 Evaluation (assessment)**

Assessment is the means by which the performances or characteristics of a student or group of students is determined. Brady (1990) proposed some elements that should be included in the assessment process: Were there changes in students? What were these changes? How great or small were these changes? and What was the extent of these differences?

In order to understand increases in student knowledge, the outcome of the training should be evaluated (Bazas et al., 2002). Previous research about time trends and predictive factors for safety perceptions among incoming South Australian university students found that being assessed on OHS training will increase the likelihood of perceived safety skills and confidence by 1.60 to 2.77 greater than those who were not assessed on their training (Thamrin et al., 2010). Furthermore, the findings from focus group discussions suggested that training with assessment and providing a certificate was desirable to increase international students' OHS confidence. The certificate also can be used as a confirmation to the workplace regarding basic OHS knowledge and skill obtained from the training.

# Chapter 7

## CONCLUSIONS & RECOMMENDATIONS

## **CHAPTER 7. CONCLUSIONS AND RECOMMENDATIONS**

### **7.1 Conclusions**

This research provides numbers and stories as evidence to explore work health and safety experiences among international students as young migrant workers in South Australia and to discover the role of the University could potentially play in providing effective occupational health and safety (OHS) awareness and education for international students. On the basis of the research findings, four main conclusions are drawn.

#### **7.1.1 Time trends and risk of serious injury among young migrant workers**

The findings from statistical review of workers' compensation dataset highlighted that the proportion of serious injury out of all injury claims among young migrant workers tended to incline over the period 2004-2013. Furthermore, from statistical analysis, it was found that being non-Australian born, non-English speaking background (NESB), older young worker (20-24), female, new worker, small/medium company worker, night shift worker, outdoor worker and non-self-insured company worker become important predictive factors for serious injury claims among young workers. These characteristics are commonly exhibited by international students and may mean that international students are in a greater risk of experiencing serious injury in the workplace compared to young local workers.

### **7.1.2 International students' reasons to work, working experiences and injury experiences**

This study found that international student' reasons to work while study, were not all about to earn money. Improving their English, having cultural adjustment and making friends were other reasons to get involved in the Australian workplace.

With respect to international students' working experiences, most international students involved in hospitality sectors of industry such as restaurants, supermarkets, grocery stores, cleaning jobs and in agriculture sector. Considering their job status, most of them worked in a part time job, a casual job or in a seasonal employment. Regarding their working hours the study found that small proportion of international students worked exceed 20 hours per week that means they breached their visa conditions. Furthermore, considering their rate of pay, this research maintains that most international students were underpaid in the workplace.

Turning to injury experiences, this study found that cuts, burns, strains and slips/falls were the four main kinds of injuries that international students experienced in the Australian workplaces. Although various types of OHS training were provided by the school and the university, it was considered ineffective and not relevant to the workplace. Furthermore, regarding workplace training that should be provided by employers, the study revealed that most international students did not receive any OHS training before commencing the work.

### **7.1.3 The predictive factors of injury experiences and work-study interferences**

This research identifies the important predictive factors of injury experiences in the workplace for international students: working 20 hours or more per week, perceiving that wages are unfair, feeling exploited, being a second year student, and being less confident in OHS issues.

Turning to work-study interferences, this study highlights that tiredness, timetable clash and failure to submit assignment on time as three main forms of work-study interferences. Furthermore, this study identifies that working 20 hours or more, perceiving that wages are unfair, being a second year student, being a partial scholarship student and being less confident in OHS issues were the predictive factors international students to experience the conflict of working while studying.

### **7.1.4 The current practices of OHS education and the role of the University**

This research provides a critical evaluation of whether the current practices of OHS education within the University were effective to support international students to work safely in the workplace; it also considered the role of the University in terms of OHS awareness raising and education. The study found that students' perspective towards OHS education was shaped by their experiences and study backgrounds. There was a different emphasis of OHS education between the schools of engineering and social sciences where students from the school of engineering being exposed more about OHS information than students from social sciences. Furthermore, the only OHS information delivered by the University focussed on students' security and safety around the University environment.

Most participants claimed that the University had “zero” concern for international students’ working life outside the campuses. Hence, the University provides no OHS information, awareness and education to avoid international students from accident and injury in the workplace.

It was not surprising when some participants revealed that they experienced negative impacts of having paid employment when they had long working hours since this is consistent with the finding from the quantitative study and some literature. However, when the jobs were done during holidays, or on the weekend, or the working hours did not exceed 20 hours a week or hours were flexible, some participants maintained that there was no conflict at all with demands of study.

With respect to health and safety issues, important findings were revealed regarding international students’ perception towards hazards and risks in the workplace. Some participants explained that they did not care about the risks and still performed a highly risky job which reflects the characteristics of young workers who tend to display the risk-taking behaviour that is a major contributing factor to injury. Indeed, some participants revealed that they had experienced accident and injury in the workplace.

The role of the University in teaching OHS education for international student employees is to provide generic or basic knowledge, awareness or training related to all-inclusive OHS issues such as rights and responsibilities and hazards and risks in the workplace. However, this can never act as a replacement for a specific job training provided by employers, nor can be it expected to.

## 7.2 Recommendations

A number of recommendations are made based on evidence statistical reviews, empirical studies and the conceptual frameworks. These recommendations are provided with the aim of reducing accidents and injuries among international students as young migrant workers and to enhance the role and the reputation of the University as education provider for international students. The following recommendations are categorised according to stakeholders:

### 7.2.1 Future researchers

It was noted in Study 1 that overall the number of all injury claims and serious injury claims among young workers tended to be decreasing. However, in terms of the proportion of serious injury claims out of all claims among young workers, this study found that the trend was tended to be growing particularly for the variables directed to young migrant workers' characteristics during the ten-year period of observation. *The reasons for the decline on the one hand and incline on the other hand are unknown and warrant further investigation.*

Study 2 (online survey) has explored international students' working experiences together with some important issues included training experiences, injury experiences and work-study interference with its important predictive factors. As mentioned in the limitations section, the study was conducted as a cross sectional survey where data on each participant was recorded once only. *Hence, a longitudinal study is recommended to have better picture of the associations between risk factors and outcome variables.*

Study 3 (focus group discussions) has provided a wide range of international students' perspective towards a need of effective and relevant OHS education to the workplace to be integrated in the University curriculum and the role of the University in OHS awareness and education. *However, opinions and perceptions from lecturers, the University staffs, and stakeholders such as ISC manager and head of disciplines and schools who play important roles as decision makers should be explored.*

### 7.2.2 University

As an education provider and a part of its duty of care, *the University should better prepare international students to work in the community and raise awareness of how working can interfere with study. The University should also be aware of the impact of health and safety issues of employment on its international students.* Some suggestions are offered:

1. Teaching about hazards and risks in the workplace

OHS topics should be integrated into the University curriculum to prepare international students for safe work as a core value of their working life. Basic introduction to OHS training should be provided for international students, particularly for those who have paid employment. The course content and mode of delivery should be tailored to be student friendly (that is, realistic, attractive, simple and fun), thus accommodating the characteristics of young workers physically and psychologically. *A standard for OHS education and training for international students should be prescribed in terms of learning outcomes.*

2. Rights and responsibilities awareness



A sense of exploitation in the workplace was frequently raised by international students. More than a half of respondents stated that they were underpaid. It was felt that *the University should empower students through services and education.*

### 3. Partnership between the University and industry

Students also distinguished the role of the University in providing basic OHS knowledge as the foundation for future workplace-based training. Simultaneously, industry employers should be more aware of OHS education and training provided by the University to reduce duplication. Industry employers have a legal responsibility to provide appropriate OHS training in the workplace, while the University has a duty of care to ensure international students receive appropriate OHS training. This may bridge and reinforce existing OHS knowledge, attitudes and skills for international students to perform safely in the workplace.

### 7.2.3 Government

This study highlighted that working 20 hours or more per week was significantly associated with injury experience and students' work-study interference. Thus, the *research supports the current regulation to limit international students working hours up to 20 hours per week..*

Or, rather than resolving whether international students to work or not, it is crucial to provide more sufficient information for international students about their right and responsibility in the workplace and to know that working 20 hours or more per week could lead to detrimental effects on health and safety issues and academic performances. Thus, this study provides important evidence for policy-makers to

review the regulation of international students' visa condition particularly for postgraduate research students who can work unlimited hours.

*This study also recommends to SafeWork SA as regulatory body to provide a specific code for student or international student to be included and stand alone as a variable in workers' compensation datasets in order to address specifically their injury profile as sub-group of young workers and to enhance monitoring of injuries among young workers.*

#### **7.2.4 I-Graduate**

As an independent survey company I-Graduate collects data in a regular basis for the Australian universities related to international students experience and perspective through ISB survey. For longitudinal study purposes, *it is recommended that I-Graduate include international students' working experiences and injury experiences within the survey.*

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# APPENDICES



## **List of Appendices**

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## **Appendix 1. Coding variables of workers' compensation data set analysis 2004-2013**

Nine variables were investigated to explore their relationship with serious injury claims: Birth\_Nation, Gender, Language, Age\_Group, New Workers, Employer\_Size, Injury\_Time, Industry\_Sector and Exempt\_type. For the purpose of statistical analysis, the variables were recoded into two categories (dicotomous variables).

### *Outcome variable:*

Serious claims: 1 if Days Lost = 10 days or more; 2 if under 10 days.

### *Predictive variables:*

1. Birth\_Nation: 1 if Non-Australian Born; 2 if Australian Born.
2. Gender: 1 if Female; 2 if Male.
3. Language: 1 if Non-English Speaking Background (NESB); 2 if English.
4. Age\_Group: 1 if 20 to 24; 2 if 15 to 19.
5. New\_Worker: 1 if Yes then 1; 2 if No.
6. Employer size: 1 if Small (1 to 20) or Medium (21-201); 2 if Large (201+).
7. Injury\_Time: 1 if Night shift (18.00-5.59); 2 if Day shift (6.00-17.59).
8. Industry\_Sector: 1 if Outdoor work (Agriculture, Forestry, Fishing and Hunting; Construction; Electricity, Gas and Water; Mining); 2 if Indoor work.
9. Exempt\_type: 1 if Non-Exempt; 2 if Private/Crown.

## Appendix 2. The ISB survey 2013 questions

| QUESTION TITLE   |
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| University / Institution   |
| Where is your university based?  |
| Location   |
| Study type   |
| Study type (Other)   |
| Main area of study   |
| Main area of study (Other)   |
| Course title   |
| Faculty  |
| Campus   |
| Stage of study   |
| When did you start your course?  |
| What is the level of your current course of study?   |
| Level of study (Other)   |
| Attending formal lectures or classroom teaching (In a normal 7 day week, how many hours do you spend on the following?)        |
| Supervised small groups, practical work or tutorials (In a normal 7 day week, how many hours do you spend on the following?)   |
| Individual time with a member of academic staff (In a normal 7 day week, how many hours do you spend on the following?)        |
| Unsupervised study with friends/colleagues (In a normal 7 day week, how many hours do you spend on the following?)             |
| Unsupervised personal study online (In a normal 7 day week, how many hours do you spend on the following?)                     |
| Unsupervised personal study offline (In a normal 7 day week, how many hours do you spend on the following?)                    |
| Employment directly related to field of study (paid) (In a normal 7 day week, how many hours do you spend on the following?)   |
| Employment directly related to field of study (unpaid) (In a normal 7 day week, how many hours do you spend on the following?) |
| Employment not related to field of study (paid) (In a normal 7 day week, how many hours do you spend on the following?)        |
| Employment not related to field of study (unpaid) (In a normal 7 day week, how many hours do you spend on the following?)      |
| How much do you earn approximately per hour?   |
| Attending formal lectures or classroom teaching (Please indicate your opinion on the number of hours spent on the following:)  |
| Supervised small groups / tutorials (Please indicate your opinion on the number of hours spent on the following:)              |
| Individual time with a member of academic staff (Please indicate your opinion on the number of hours spent on the following:)  |
| Nationality  |
| Which state/city/region do you come from?  |
| Year of birth  |
| Gender   |
| ISB / SB   |
| Overall satisfaction   |
| Before commencing your studies, where did you study previously (most recently)?  |
| Foundation programme/preparatory course provider   |

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| Are either of your parents educated to a degree level?   |
| Time taken to process your visa (During the visa application process, how satisfied were you with the following:)                                  |
| Service levels from visa office staff in your country (During the visa application process, how satisfied were you with the following:)            |
| Biometric information process (fingerprints, Identity card etc.) (During the visa application process, how satisfied were you with the following:) |
| Support from the university with your visa application process (During the visa application process, how satisfied were you with the following:)   |
| Immigration service on arrival at the border (During the visa application process, how satisfied were you with the following:)                     |
| Accommodation  |
| Own funds (How are you funding your studies?)  |
| Loan (How are you funding your studies?)   |
| Family (How are you funding your studies?)   |
| Employer (How are you funding your studies?)   |
| Part-time working (How are you funding your studies?)  |
| Government/State funding (How are you funding your studies?)   |
| Host country government scholarship (How are you funding your studies?)  |
| Home country government scholarship (How are you funding your studies?)  |
| AusAID (How are you funding your studies?)   |
| University or College scholarship/bursary (How are you funding your studies?)  |
| Other scholarship (How are you funding your studies?)  |
| Foundation, charity or trust (How are you funding your studies?)   |
| Research Council funding (How are you funding your studies?)   |
| Other (How are you funding your studies?)  |
| Did you have to sit a language test before joining the university?   |
| Did you have to sit a language test before joining the university? (Other)   |
| How many points did you score on the test overall?   |
| Please describe your level of English  |
| Where were you studying or working before you began this current programme of study?   |
| Where were you studying or working before you began this current programme of study? (Other)   |
| Before commencing your current course of study, how long were you in this country?   |
| Which was more important in your decision of where to study?   |
| Was this country your first choice for your international study?   |
| No other countries considered (If you considered studying in other countries, which countries did you consider?)                                   |
| Austria (If you considered studying in other countries, which countries did you consider?)   |
| Belgium (If you considered studying in other countries, which countries did you consider?)   |
| Canada (If you considered studying in other countries, which countries did you consider?)  |
| China (If you considered studying in other countries, which countries did you consider?)   |
| France (If you considered studying in other countries, which countries did you consider?)  |
| Finland (If you considered studying in other countries, which countries did you consider?)   |
| Germany (If you considered studying in other countries, which countries did you consider?)   |
| Ireland (If you considered studying in other countries, which countries did you consider?)   |
| Italy (If you considered studying in other countries, which countries did you consider?)   |
| Japan (If you considered studying in other countries, which countries did you consider?)   |

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| Malaysia (If you considered studying in other countries, which countries did you consider?)  |
| Netherlands (If you considered studying in other countries, which countries did you consider?)   |
| New Zealand (If you considered studying in other countries, which countries did you consider?)   |
| Singapore (If you considered studying in other countries, which countries did you consider?)   |
| South Africa (If you considered studying in other countries, which countries did you consider?)  |
| South Korea (If you considered studying in other countries, which countries did you consider?)   |
| Spain (If you considered studying in other countries, which countries did you consider?)   |
| Sweden (If you considered studying in other countries, which countries did you consider?)  |
| Switzerland (If you considered studying in other countries, which countries did you consider?)   |
| UAE (incl. Dubai) (If you considered studying in other countries, which countries did you consider?)   |
| United Kingdom (If you considered studying in other countries, which countries did you consider?)  |
| USA (If you considered studying in other countries, which countries did you consider?)   |
| Hong Kong (If you considered studying in other countries, which countries did you consider?)   |
| Other (Other) (If you considered studying in other countries, which countries did you consider?)   |
| No Other Countries applied (Which other countries did you apply to study in?)  |
| Proximity to my home country (How important were the following factors when deciding where to study?)  |
| Entry requirements (How important were the following factors when deciding where to study?)  |
| Personal safety and security (How important were the following factors when deciding where to study?)  |
| Quality of teaching (How important were the following factors when deciding where to study?)   |
| Quality of research (How important were the following factors when deciding where to study?)   |
| Length of course (How important were the following factors when deciding where to study?)  |
| Specific course title (How important were the following factors when deciding where to study?)   |
| Cost of education (tuition fees) (How important were the following factors when deciding where to study?)  |
| Cost of living (How important were the following factors when deciding where to study?)  |
| Scholarship/bursary/fee waiver from this institution (How important were the following factors when deciding where to study?)                    |
| Social life (How important were the following factors when deciding where to study?)   |
| City/Location (How important were the following factors when deciding where to study?)   |
| Opportunities to work while studying (How important were the following factors when deciding where to study?)                                    |
| Opportunities for further study in this country following my studies (How important were the following factors when deciding where to study?)    |
| Opportunities for full-time work in this country following my studies (How important were the following factors when deciding where to study?)   |
| Opportunity for long-term employment or permanent residence (How important were the following factors when deciding where to study?)             |
| Friends or family already living/studying in the country (How important were the following factors when deciding where to study?)                |
| How people would behave towards me as an international student (How important were the following factors when deciding where to study?)          |
| Reputation of the education system in this country (How important were the following factors when deciding where to study?)                      |
| Reputation of this University (How important were the following factors when deciding where to study?)   |
| Reputation (value in my career) of a qualification from this university (How important were the following factors when deciding where to study?) |
| Department reputation (How important were the following factors when deciding where to study?)   |
| Reputation of an individual (academic supervisor, professor) (How important were the following factors when deciding where to study?)            |
| Position in ranking/league tables (How important were the following factors when deciding where to study?)                                       |

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| Ease of getting a visa to study in this country (How important were the following factors when deciding where to study?)                         |
| Earning potential of my chosen degree from this institution (How important were the following factors when deciding where to study?)             |
| Tourism (scenery, culture, recreation and leisure activities) (How important were the following factors when deciding where to study?)           |
| Education agent/consultant (Which of the following HELPED your decision to CHOOSE this institution?)   |
| Pathway provider (Which of the following HELPED your decision to CHOOSE institution?)  |
| Alumni of the university (someone who has already studied here) (Which of the following HELPED your decision to CHOOSE this institution?)        |
| An employer (Which of the following HELPED your decision to CHOOSE this institution?)  |
| Careers adviser at school/college/university (Which of the following HELPED your decision to CHOOSE this institution?)                           |
| Current student or students studying at this university (Which of the following HELPED your decision to CHOOSE this institution?)                |
| A friend or friends (Which of the following HELPED your decision to CHOOSE this institution?)  |
| Home country government advisory service (Which of the following HELPED your decision to CHOOSE this institution?)                               |
| Independent website (Which of the following HELPED your decision to CHOOSE this institution?)  |
| Newspaper or magazine advertisement (Which of the following HELPED your decision to CHOOSE this institution?)                                    |
| Newspaper or magazine article (Which of the following HELPED your decision to CHOOSE this institution?)  |
| On-site campus open day (Which of the following HELPED your decision to CHOOSE this institution?)  |
| Virtual open day (Which of the following HELPED your decision to CHOOSE this institution?)   |
| A visit to the university (not an open day) (Which of the following HELPED your decision to CHOOSE institution?)                                 |
| My parents/parent/guardian (Which of the following HELPED your decision to CHOOSE this institution?)   |
| My partner/husband/wife (Which of the following HELPED your decision to CHOOSE this institution?)  |
| Printed directory or guide (Which of the following HELPED your decision to CHOOSE this institution?)   |
| League tables or rankings (Which of the following HELPED your decision to CHOOSE this institution?)  |
| Social Networking site (e.g. Orkut, Bebo, Facebook, Hyves etc.) (Which of the following HELPED your decision to CHOOSE this institution?)        |
| Sponsor (Which of the following HELPED your decision to CHOOSE this institution?)  |
| Staff of the university at a presentation or meeting (Which of the following HELPED your decision to CHOOSE this institution?)                   |
| An education exhibition/fair (Which of the following HELPED your decision to CHOOSE this institution?)   |
| Teacher/tutor/lecturer where I studied previously (Which of the following HELPED your decision to CHOOSE this institution?)                      |
| TV or radio advert (Which of the following HELPED your decision to CHOOSE this institution?)   |
| A printed document/guide from this university e.g. prospectus (Which of the following HELPED your decision to CHOOSE this institution?)          |
| The website of this university (Which of the following HELPED your decision to CHOOSE this institution?)   |
| Other (Which of the following HELPED your decision to CHOOSE this institution?)  |
| Which newspapers or print media helped you to decide where to study? (1)   |
| Which newspapers or print media helped you to decide where to study? (2)   |
| Which television or radio station helped you decide where to study? (1)  |
| Please tell us which education fair helped you to decide where to study (5)  |
| Times Higher Education (League tables or rankings - Please tell us which league tables or rankings helped you to decide where to study.)         |
| QS World University Rankings (League tables or rankings - Please tell us which league tables or rankings helped you to decide where to study.)   |
| Australian University Rankings (League tables or rankings - Please tell us which league tables or rankings helped you to decide where to study.) |
| Other, please specify (League tables or rankings - Please tell us which league tables or rankings helped you to decide where to study.)          |

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| Other, please specify (League tables or rankings - Please tell us which league tables or rankings helped you to decide where to study.) (Other) |
| How long did you wait from making initial contact to getting a response from this university?   |
| How satisfied were you with this response time?   |
| How long did you wait between applying and receiving your offer from this university?   |
| How satisfied were you with this response time for the offer?   |
| Education agents (How satisfied were you with the accuracy of pre-arrival advice and information (including websites) you received from:)       |
| This university (How satisfied were you with the accuracy of pre-arrival advice and information (including websites) you received from:)        |
| Additional communication - Did you receive any additional communication from the university between accepting a place and arriving?             |
| How did you apply to your current course at this university?  |
| Agent rating (Please rate the service you received from the agent/representative office)  |
| Agent name  |
| Agent city  |
| Would you recommend the agent/overseas representative that you used to other students thinking of applying?                                     |
| Have you been contacted by your agent/representative after arriving at the university?  |
| The agent was well informed about Higher Education in this country (To what extent do you agree or disagree with the following statements:)     |
| The agent reduced time and effort needed to complete application (To what extent do you agree or disagree with the following statements:)       |
| The agent described the university accurately (To what extent do you agree or disagree with the following statements:)                          |
| The agent provided helpful services for my visa application (To what extent do you agree or disagree with the following statements:)            |
| The agent provided helpful pre-departure orientation services (To what extent do you agree or disagree with the following statements:)          |
| Overall, how satisfied were you with the ARRIVAL EXPERIENCE?  |
| Welcome/pickup at airport, railway, bus station (Please rate the following statements regarding when you first arrived at the university:)      |
| Academic registration (Please rate the following statements regarding when you first arrived at the university:)                                |
| First night - getting to where I would stay (Please rate the following statements regarding when you first arrived at the university:)          |
| Formal welcome at the university (Please rate the following statements regarding when you first arrived at the university:)                     |
| University orientation (Please rate the following statements regarding when you first arrived at the university:)                               |
| Orientation (finding my way around the local area) (Please rate the following statements regarding when you first arrived at the university:)   |
| Setting up a bank account (Please rate the following statements regarding when you first arrived at the university:)                            |
| Meeting academic staff (Please rate the following statements regarding when you first arrived at the university:)                               |
| Understanding how my course of study would work (Please rate the following statements regarding when you first arrived at the university:)      |
| Condition of accommodation on arrival (Please rate the following statements regarding when you first arrived at the university:)                |
| Health insurance (Please Rate the following statements regarding when you first arrived at the university)                                      |
| Internet access at my accommodation (Please rate the following statements regarding when you first arrived at the university:)                  |
| Organised social activities (Please rate the following statements regarding when you first arrived at the university:)                          |
| Meeting students from my country (Please rate the following statements regarding when you first arrived at the university:)                     |
| Meeting students from this country (Please rate the following statements regarding when you first arrived at the university:)                   |
| Meeting students from other countries (Please rate the following statements regarding when you first arrived at the university:)                |

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| Finance Office (Please rate the following statements regarding when you first arrived at the university:)   |
| Student Accommodation Office (Please rate the following statements regarding when you first arrived at the university:)   |
| Overall, how satisfied are you with the LEARNING EXPERIENCE at this stage in the year?  |
| The quality of lectures (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)  |
| The subject area expertise of lecturers/supervisors (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                |
| The teaching ability of lecturers/supervisors (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                      |
| The academic content of my programme/studies (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                       |
| The organisation and smooth running of the course (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                  |
| The level of research activity (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)   |
| Academic staff whose English I can understand (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                      |
| Getting time from academic staff when I need it/ personal support with learning (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)    |
| Feedback on coursework/formal written submissions (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                  |
| Explanation of marking/assessment criteria (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)   |
| Fair and transparent assessment of my work (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)   |
| Guidance in topic selection and refinement by my supervisor (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                        |
| Confidence about managing a research project as a result of my experience so far (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)   |
| The quality of the lecture theatres and classrooms (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                 |
| The quality of laboratories (if applicable) (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)  |
| The physical library facilities (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)  |
| The online library facilities (access to journals etc) (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                             |
| The learning technology (PCs, networking, etc) (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                     |
| Virtual Learning Environment (Blackboard/WebCT/Weblearn) (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                           |
| Advice and guidance on long-term job opportunities and careers from academic staff (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:) |
| Learning that will help me to get a good job (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                       |
| Opportunities for work experience/work placements as a part of my studies (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)          |
| Studying with people from other cultures (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)   |
| Help to improve my English language skills (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)   |
| Opportunities to teach (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)   |
| The size of the classes (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)  |
| Overall, how satisfied are you with the LIVING EXPERIENCE at this stage in the year?  |
| Accommodation access (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)   |
| The quality of accommodation (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)   |
| The cost of accommodation (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)  |
| The cost of living (food, drink, transport and social) (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                             |
| Feeling safe and secure (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)  |



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| Making friends from my home country (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                     |
| Making friends from this country (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                        |
| Making friends from other countries (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                     |
| Opportunities to experience the culture of this country (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:) |
| The sports facilities (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                   |
| The social facilities (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                   |
| The social activities (organised events) (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                |
| Internet access at my accommodation (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                     |
| Making good contacts for the future (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                     |
| The surroundings outside the University (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                 |
| Transport between university locations (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                  |
| The transport links to other places (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                     |
| The availability of financial support/bursaries, etc (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)    |
| The opportunity to earn money while studying (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)            |
| Immigration and visa advice from the University (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)         |
| Australians (How many close friends do you have from the following groups of people?)  |
| People from my home country (How many close friends do you have from the following groups of people?)                                    |
| People from other countries (How many close friends do you have from the following groups of people?)                                    |
| Australians (How often do you spend social time with the following groups of people?)  |
| People from my home country (How often do you spend social time with the following groups of people?)                                    |
| People from other countries (How often do you spend social time with the following groups of people?)                                    |
| Australians (How often do you study with the following groups of people?)  |
| People from my home country (How often do you study with the following groups of people?)  |
| People from other countries (How often do you study with the following groups of people?)  |
| I feel welcome in Australia (To what extent do you agree or disagree with the following statements about your experience in Australia?)  |
| Australian students (During your time at university in Australia, how have you been treated by the following groups of people?)          |
| International students (During your time at university in Australia, how have you been treated by the following groups of people?)       |
| Tutors/lecturers (During your time at university in Australia, how have you been treated by the following groups of people?)             |
| People in the community (During your time at university in Australia, how have you been treated by the following groups of people?)      |
| Australian students (My Colour - My Colour)  |
| International students (My Colour - My Colour)   |
| Tutors/lecturers (My Colour - My Colour)   |
| Administrative support staff at your university (My Colour - My Colour)  |
| People in the community (My Colour - My Colour)  |
| Australian students (My Religion - My Religion)  |
| International students (My Religion - My Religion)   |
| Tutors/lecturers (My Religion - My Religion)   |
| Administrative support staff at your university (My Religion - My Religion)  |

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| People in the community (My Religion - My Religion)   |
| Australian students (My Disability - My Disability)   |
| International students (My Disability - My Disability)  |
| Tutors/lecturers (My Disability - My Disability)  |
| Administrative support staff at your university (My Disability - My Disability)   |
| People in the community (My Disability - My Disability)   |
| Australian students (My Accent/ Language Ability - My Accent/ Language Ability)   |
| International students (My Accent/ Language Ability - My Accent/ Language Ability)  |
| Tutors/lecturers (My Accent/ Language Ability - My Accent/ Language Ability)  |
| Administrative support staff at your university (My Accent/ Language Ability - My Accent/ Language Ability)                                 |
| People in the community (My Accent/ Language Ability - My Accent/ Language Ability)   |
| Australian students (My Gender - My Gender)   |
| International students (My Gender - My Gender)  |
| Tutors/lecturers (My Gender - My Gender)  |
| Administrative support staff at your university (My Gender - My Gender)   |
| People in the community (My Gender - My Gender)   |
| Australian students (My Age - My Age)   |
| International students (My Age - My Age)  |
| Tutors/lecturers (My Age - My Age)  |
| Administrative support staff at your university (My Age - My Age)   |
| People in the community (My Age - My Age)   |
| Australian students (My Nationality - My Nationality)   |
| International students (My Nationality - My Nationality)  |
| Tutors/lecturers (My Nationality - My Nationality)  |
| Administrative support staff at your university (My Nationality - My Nationality)   |
| People in the community (My Nationality - My Nationality)   |
| Australian students (My Cultural Background - My Cultural Background)   |
| International students (My Cultural Background - My Cultural Background)  |
| Tutors/lecturers (My Cultural Background - My Cultural Background)  |
| Administrative support staff at your university (My Cultural Background - My Cultural Background)   |
| People in the community (My Cultural Background - My Cultural Background)   |
| Australian students (Other - Other)   |
| International students (Other - Other)  |
| Tutors/lecturers (Other - Other)  |
| Administrative support staff at your university (Other - Other)   |
| People in the community (Other - Other)   |
| On campus (To what extent would you say you are, or would be, safe in the following locations?)   |
| Your accommodation (To what extent would you say you are, or would be, safe in the following locations?)                                    |
| Public spaces (city, malls, off campus) (To what extent would you say you are, or would be, safe in the following locations?)               |
| Public transport (includes train stations, bus stops) (To what extent would you say you are, or would be, safe in the following locations?) |
| Overall, how satisfied are you with the SUPPORT SERVICES at this stage in the year?   |
| Student Finance (Please indicate your USE/KNOWLEDGE of the following?)  |

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| International Student Centre (Please indicate your USE/KNOWLEDGE of the following?)  |
| IT and system support (Please indicate your USE/KNOWLEDGE of the following?)   |
| Hub Central Services (Please indicate your USE/KNOWLEDGE of the following?)  |
| Counselling Service (Please indicate your USE/KNOWLEDGE of the following?)   |
| Careers Service (Please indicate your USE/KNOWLEDGE of the following?)   |
| Provision for religious practice (Please indicate your USE/KNOWLEDGE of the following?)  |
| Accommodation Service (Please indicate your USE/KNOWLEDGE of the following?)   |
| Students' Union (Please indicate your USE/KNOWLEDGE of the following?)   |
| Health Services (Please indicate your USE/KNOWLEDGE of the following?)   |
| Halls of Residence welfare support (Please indicate your USE/KNOWLEDGE of the following?)  |
| Graduate Centre (Please indicate your USE/KNOWLEDGE of the following?)   |
| Campus eating places (Please indicate your USE/KNOWLEDGE of the following?)  |
| University Clubs/Societies (Please indicate your USE/KNOWLEDGE of the following?)  |
| Disability Liaison Office (Please indicate your USE/KNOWLEDGE of the following?)   |
| International Recruitment and Admissions Office (Please indicate your USE/KNOWLEDGE of the following?)                           |
| English Language Centre (Please indicate your USE/KNOWLEDGE of the following?)   |
| The Writing Centre (Please indicate your USE/KNOWLEDGE of the following?)  |
| University Contact Centre (formerly Student Centre) (Please indicate your USE/KNOWLEDGE of the following?)                       |
| Maths Learning Centre, CLPD (Please indicate your USE/KNOWLEDGE of the following?)   |
| Sporting Facilities (Please indicate your USE/KNOWLEDGE of the following?)   |
| Student Finance (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                 |
| International Student Centre (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                    |
| IT and system support (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                           |
| Hub Central Services (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                            |
| Counselling Service (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                             |
| Careers Service (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                 |
| Provision for religious practice (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                |
| Accommodation Service (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                           |
| Students' Union (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                 |
| Health Services (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                 |
| Graduate Centre (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                                 |
| Campus eating places (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                            |
| University Clubs/Societies (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                      |
| Disability Liaison Office (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                       |
| International Recruitment and Admissions Office (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:) |
| English Language Centre (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                         |
| The Writing Centre (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                              |
| Maths Learning Centre, CLPD (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                     |
| Sporting Facilities (Please say how SATISFIED you are AT THIS STAGE IN THE YEAR with the following:)                             |
| University news bulletins (How do you prefer to receive advice and information from the university about the following?)         |
| Accommodation services (How do you prefer to receive advice and information from the university about the following?)            |

## Appendix 3. Ethics approval



RESEARCH BRANCH  
OFFICE OF RESEARCH ETHICS, COMPLIANCE AND  
INTEGRITY

BEVERLEY DOBBS  
EXECUTIVE OFFICER  
LOW RISK HUMAN RESEARCH ETHICS REVIEW  
GROUP (FACULTY OF HUMANITIES AND SOCIAL  
SCIENCES AND FACULTY OF THE PROFESSIONS)  
THE UNIVERSITY OF ADELAIDE  
SA 5005  
AUSTRALIA  
TELEPHONE +61 8 8313 4725  
FACSIMILE +61 8 8313 7325  
email: beverley.dobbs@adelaide.edu.au

16 September 2013

Associate Professor D Pisaniello  
School of Public Health

Dear Associate Professor Pisaniello

**ETHICS APPROVAL No: HS-2013-045**  
**PROJECT TITLE: International students as young migrant workers in South Australia - Role of the University in OHS awareness and education**

I write to advise that the Low Risk Human Research Ethics Review Group (Faculty of Health Sciences) has approved the above project. The ethics expiry date for this project is **30 September 2016**.

Ethics approval is granted for three years subject to satisfactory annual progress and completion reporting. The form titled *Project Status Report* is to be used when reporting annual progress and project completion and can be downloaded at <http://www.adelaide.edu.au/ethics/human/guidelines/reporting>. On expiry, ethics approval may be extended for a further period.

Participants in the study are to be given a copy of the Information Sheet and the signed Consent Form to retain. It is also a condition of approval that you **immediately report** anything which might warrant review of ethical approval including:

- serious or unexpected adverse effects on participants,
- previously unforeseen events which might affect continued ethical acceptability of the project,
- proposed changes to the protocol; and
- the project is discontinued before the expected date of completion.

Please refer to the following ethics approval document for any additional conditions that may apply to this project.

Yours sincerely

**Dr John Semmler**  
**HREC Convenor on behalf of the**  
**Low Risk Human Research Ethics Review Group (Faculty of Health Sciences)**



RESEARCH BRANCH  
OFFICE OF RESEARCH ETHICS, COMPLIANCE AND  
INTEGRITY

BEVERLEY DOBBS  
EXECUTIVE OFFICER  
LOW RISK HUMAN RESEARCH ETHICS REVIEW  
GROUP (FACULTY OF HUMANITIES AND SOCIAL  
SCIENCES AND FACULTY OF THE PROFESSIONS)  
THE UNIVERSITY OF ADELAIDE  
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TELEPHONE +61 8 8313 4725  
FACSIMILE +61 8 8313 7325  
email: beverley.dobbs@adelaide.edu.au

Applicant: Associate Professor D Pisaniello

School: Public Health

Application/RM No: 0000016875

Project Title: **International students as young migrant workers in South Australia - Role of the University in OHS awareness and education**

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**Low Risk Human Research Ethics Review Group (Faculty of Health Sciences)**

**ETHICS APPROVAL No: HS-2013-045**

**APPROVED for the period: 16 Sep 2013 to 30 Sep 2016**

This study is to be conducted by Yahya Thamrin, PhD Candidate. Thank you for the revised documents emailed 5, 10 and 12 September 2013.

**Dr John Semmler**  
**HREC Convenor on behalf of the**  
**Low Risk Human Research Ethics Review Group (Faculty of Health Sciences)**

## Appendix 4. Online survey invitation via International Students Centre (ISC) office

Request from Professor Dino Pisaniello to participate in a survey  
Augustine Bhaskarraj  
Sent: Monday, 1 September 2014 1:56 PM  
Importance:High

Dear International Student, In August, I wrote inviting you to participate in a survey. If you have already completed the survey, I would like to thank you for your contribution as this has been valuable in helping us understand the experience of international students as workers. If you have not yet completed the survey there is still time!

If you have experience working while studying then please take the time to complete this survey.

You have a chance to win one of five \$100 Woolworths vouchers (with \$500 total prize pool).

You are invited to participate in an online survey on: International Students as Young Migrant Workers in South Australia - Role of the University in OHS Awareness and Education.

This study explores work experiences and perceptions among international students as migrant workers in South Australia (SA). It also explores the role of the University in providing occupational health and safety (OHS) awareness for international students.

This project has received Human Research Ethics approval (No:HS-2013-045).

Your participation in this survey is voluntary and your responses will remain anonymous. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study.

As a thank you for completing the survey, you will be in the draw for a \$100 Woolworths voucher.

Further information about the survey and how to participate click here:  
[hps://www.surveymonkey.com/s/internaonal\\_student\\_as\\_young\\_migrant\\_worker\\_in\\_SA](https://www.surveymonkey.com/s/internaonal_student_as_young_migrant_worker_in_SA)

Kind regards, Prof. Dino Pisaniello  
School of Population Health

\*\*\*\*\*

Kind regards, Gus.

--

Augustine Bhaskarraj (Gus)

Student Services Officer | International Student Centre | The University of Adelaide, Australia 5005  
+61 8 8313 4057 | +61 8 8313 4352 | [augusne.bhaskarraj@adelaide.edu.au](mailto:augusne.bhaskarraj@adelaide.edu.au)

## **Appendix 5. Online survey information sheet and consent form**



### **Information Sheet and Consent Form for Online Surveys**

You are invited to participate in a web-based online survey on a research with title: ***International Students as Young Migrant Workers in South Australia - Role of the University in OHS Awareness and Education***. This research study is conducted to explore work health and safety experiences and perceptions among international students as migrant workers in South Australia (SA) and the role of the university potentially could play in providing sufficient occupational health and safety (OHS) awareness and education for international students. It should take approximately 15 minutes to complete.

#### **PARTICIPATION**

Your participation in this survey is voluntary. You may refuse to take part in the research or exit the survey at any time without penalty. You are free to decline to answer any particular question you do not wish to answer for any reason.

#### **BENEFITS**

You will receive no direct benefits from participating in this research study. However, your responses may help us learn more about working experience of international students as migrant workers in SA, and the predictive factors of health and safety perceptions, skills and confidence among international students. In addition, you will be entered in a drawing for one of five AU\$100.00 Woolworths Vouchers AU\$500.00 with total price (we anticipate that 400 students will participate in the study). After we have finished data collection, we will conduct the drawing. Winners will be contacted and receive the voucher via e-mail.

#### **RISKS**

There are no foreseeable risks involved in participating in this study other than those encountered in day-to-day life.

#### **CONFIDENTIALITY**

Your survey answers will be sent to a link at SurveyMonkey.com where data will be stored in a password protected electronic format. Survey Monkey does not collect identifying information such as your name, email address, or IP address. Therefore, your responses will remain anonymous. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study.

## **CONTACT**

If you have questions or problem associated with the practical aspects of your participation in the project, or wish to raise a concern or complaint about the project, then you should consult the project coordinator: **A/Prof. Dino Pisaniello** via phone at **(08) 8313 3571** or via email at [dino.pisaniello@adelaide.edu.au](mailto:dino.pisaniello@adelaide.edu.au)

If you feel you have not been treated according to the descriptions in this form, or that your rights as a participant in research have not been honored during the course of this project, or you have any questions, concerns, or complaints that you wish to address to someone other than the investigator, you may contact **the Human Research Ethics Committee's Secretary** on phone **(08) 8313 6028** or by email to [herc@adelaide.edu.au](mailto:herc@adelaide.edu.au)

**ELECTRONIC CONSENT:** You may print a copy of this consent form for your records.

Clicking on the button indicates your consent.

'I consent to participate in this research project'

**If you do not wish to participate in the research study, please decline participation by clicking on the "exit" button below.**

**Exit**



## Appendix 6. Online survey questionnaire



*Project title:*  
**International Students as Young Migrant Workers in South  
Australia:  
The Role of the University in OHS Awareness and Education**

### A. DEMOGRAPHIC DATA

1. Age : \_\_\_\_\_ Years
2. Gender : Female  Male
3. Study Program : Undergraduate  Master-Coursework   
Master - Research  PhD   
Other (*please specify*) \_\_\_\_\_
4. Year of study : 1<sup>st</sup>  2<sup>nd</sup>  3<sup>rd</sup>  4<sup>th</sup>   
Other (*please specify*) \_\_\_\_\_
5. Financial Support : Private  Partial Scholarship  Full Scholarship
6. Which country are you from? \_\_\_\_\_
7. In which faculty in the university do you study?  
Humanities and Social Sciences  The Professions  Sciences   
Engineering, Computer and Mathematics  Health Sciences
8. Does your course involve a work placement or internship? Yes  No
9. Does your course involve: Laboratory work  Field Trip  Machinery workshop   
(*you can tick more than one*) Other workshop or practical tasks  
(*please specify*) \_\_\_\_\_

### B. STUDENT WORKING EXPERIENCE

(*Only complete this section if you are currently working, or have been working while studying at a University in Australia*)

10. What is your job Casual  Part-  Seasonal  Other \_\_\_\_\_

- status?  time   \_\_\_\_\_
11. **How many jobs do you have?** One  More than one   
(if more than one please fill the data for the primary job)
12. **What is the sector of industry?** Cleaning  Restaurant/Supermarket   
Agriculture  Other \_\_\_\_\_
13. **Are exposed to any hazards at work?** Chemical  Biological  Repetitive movement   
Physical  Psychosocial  Other \_\_\_\_\_  
(you can tick more than one)
14. **The main reason for working: (you can tick more than one)**  
To pay tuition fee  To supplement living allowance   
To pay living cost  To support family in home country   
To get extra money  To improve my language   
To understand Australian culture  Peer recognition   
Other \_\_\_\_\_
15. **Do you think your wages are fair?** Yes  No
16. **On average, how many hours do you work per week?** \_\_\_\_\_
17. **How long have you been working there?** \_\_\_\_\_
18. **Working conditions:** Mainly outdoor  Mainly indoor
19. **Do you work under supervision?** Yes  No

### C. TRAINING EXPERIENCE

20. **Have you ever had any training in occupational health and safety?** Yes  No
21. **If YES, did it occur at:** University  TAFE  High School   
As part of paid or voluntary employment outside of school?
22. **What was the length of training?** \_\_\_\_\_ hours
23. **Was it:** Single brief session  Formal course   
Ongoing/repeated training
24. **Format :** Paper-based  Computer-based   
Video-based  Face-to-face presentation

25. Were you assessed on the training? Yes  No
26. Do you think the training was Too much  About right  Too little

#### D. INJURY EXPERIENCE

27. Have you ever had an injury at work? Yes  No

*If NO, please go to the question No. 35*

28. If YES, did you receive OHS training before or after the injury? Before  After

29. How many times have you experienced injury at work?  
Once  Twice  Three times  More than three times

30. What sort of injury that you ever had? (please mention the primary one)
- \_\_\_\_\_

31. What did you do to treat the injury?  
Went to hospital emergency  Visited GP   
Did not do anything  Other \_\_\_\_\_

32. If you had treatment in GP/hospital, how did you pay for the treatment?  
Out of pocket payment  Covered by OSHC   
Work Cover Compensation  Other \_\_\_\_\_

33. Did you report the injury to your supervisor or company? Yes  No

34. Have you ever witnessed a workplace accident? Yes  No

*If NO, please go to the question No. 37*

35. Did the accident resulting in a serious injury? Yes  No

36. Have you ever experienced any of following conditions in the workplace?
- |                                     |                              |                             |
|-------------------------------------|------------------------------|-----------------------------|
| <b>Discrimination</b>               | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <b>Intimidation</b>                 | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <b>Exploitation</b>                 | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <b>Other (please specify)</b> _____ |                              |                             |

#### E. ACADEMIC INTERFERENCES

37. Do you feel that your work interferes with your study?  
Never  Sometimes  Often

If Never, please go to the question No. 40.

**38. If SOMETIMES/OFTEN, how did it interfere?**

Tiredness  Time table clash   
 Not focused on study

**39. Have you ever experienced any of following conditions?**

Failure to submit assignment/task on time Yes  No   
Stress Yes  No

**F. STUDENT'S OHS PERCEPTIONS AND CONFIDENCE**

**40. Do you think you have the skills and confidence to discuss health and safety issues with your lecturer, or other relevant person?**

Yes  No

**41. Do you feel strongly about any OHS issue?** Yes  No

**42. If YES, what issue?** Personal security  Bullying   
Workplace safety  Other \_\_\_\_\_ (Please specify)

**G. ROLE OF UNIVERSITY IN RAISING OHS AWARENESS AND EDUCATION**

**43. Do you think the university has a responsibility to provide OHS education?**

Yes  No

**44. Where should OHS information should be included:**

Existing induction program for international students eg, EAP, IBP etc   
Separate workshop/additional OHS workshop   
As a part of normal curriculum at school   
Other \_\_\_\_\_

**45. Do you think that health and safety has been included in your university study?**

Yes  No

If NO, please go to the question No. 48

**46. If YES, what kind of health and safety information provided?** Rights and responsibilities  Hazards   
Specific control measure  Other \_\_\_\_\_

**47. Do you think it is directly relevant to your current job?**

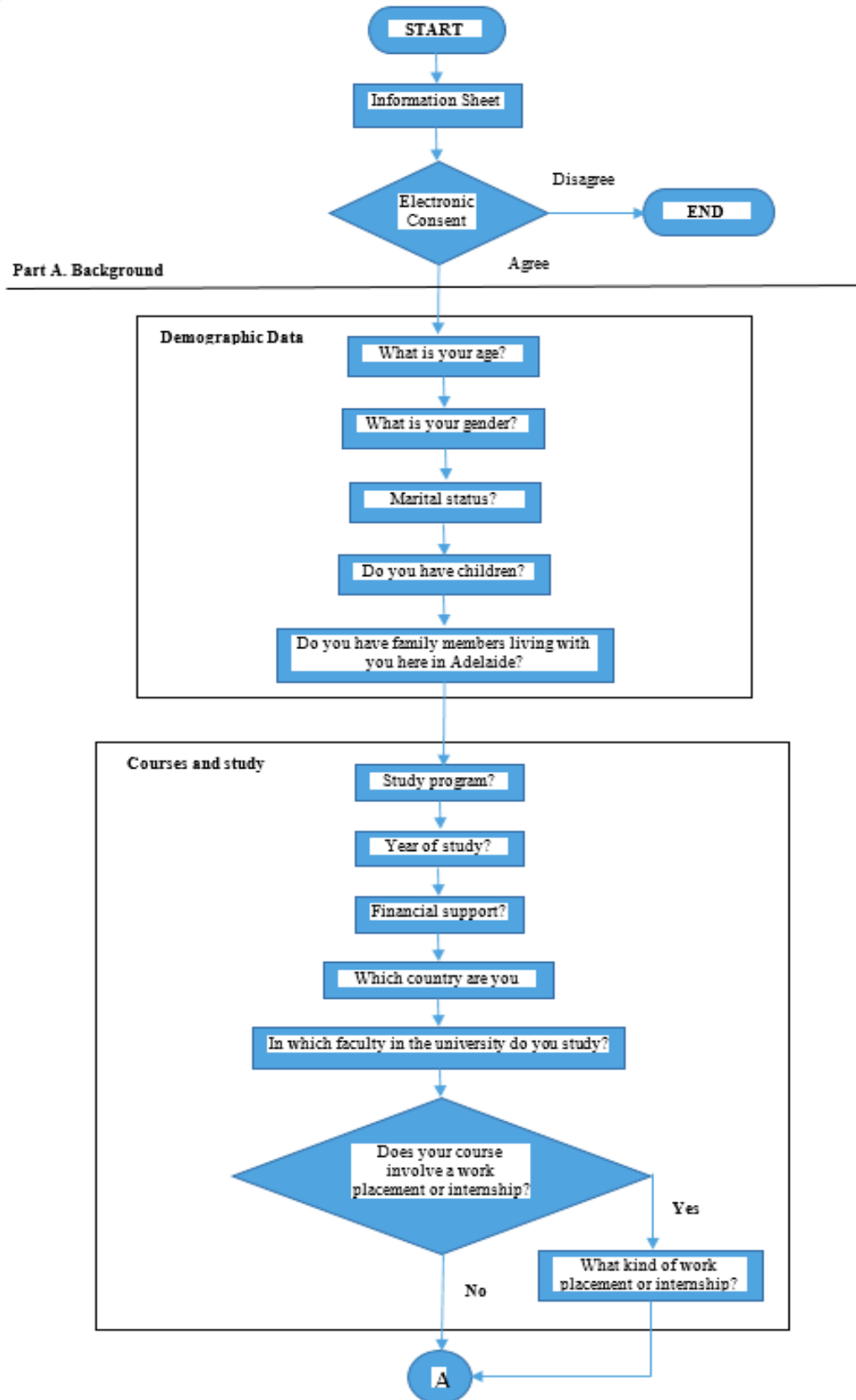
Yes  No

**48. Do you think university needs to do more?** Yes  No

**49. Have you done the university OHS online induction course?**

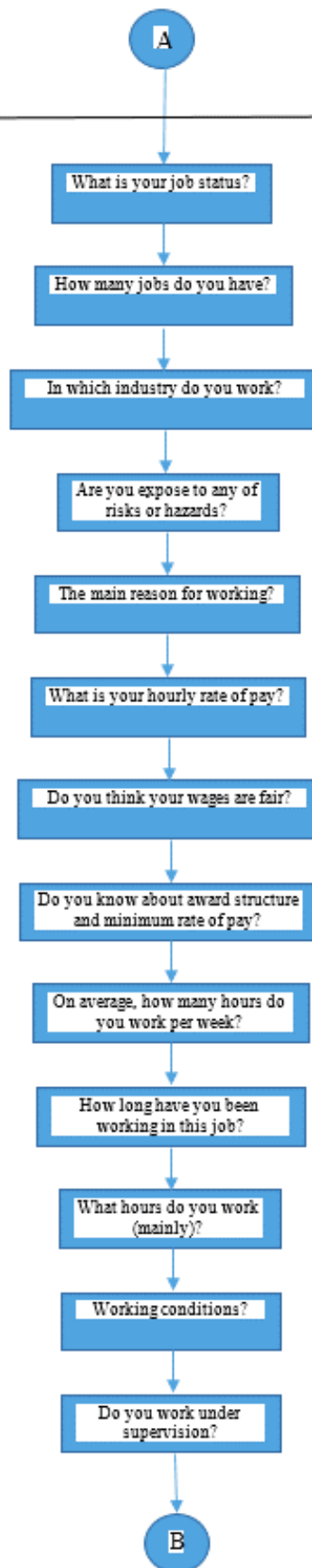
Yes  No

## Appendix 7. Online survey questionnaire flowchart



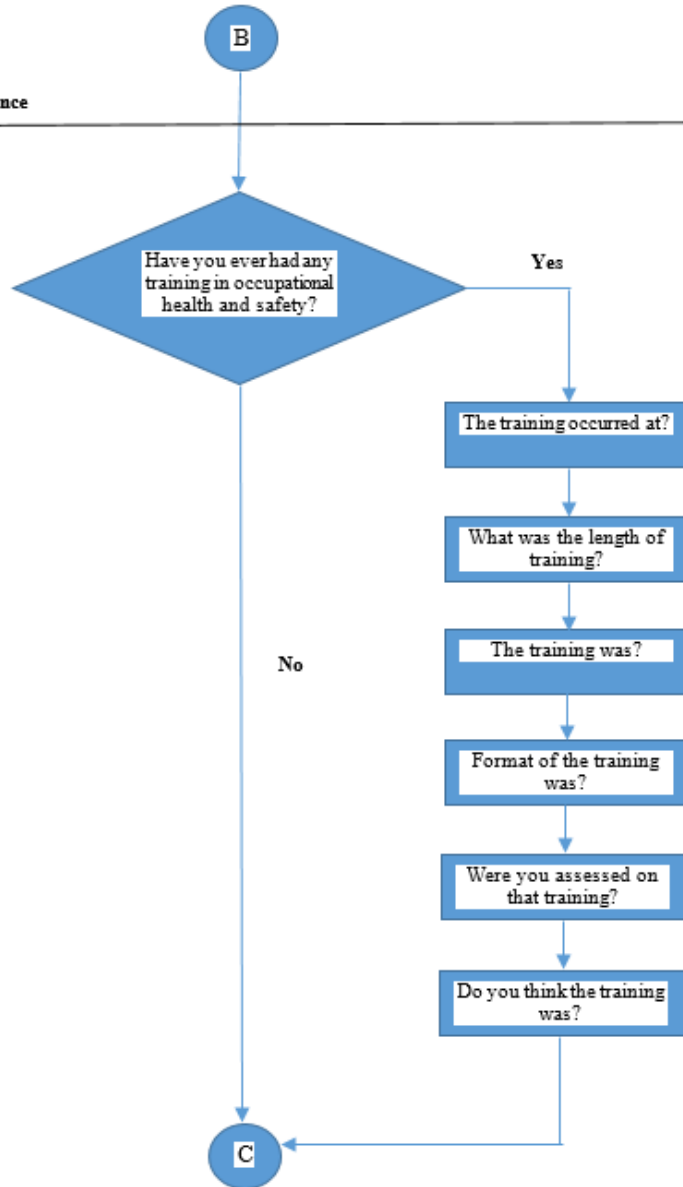
Part B. Student working experience

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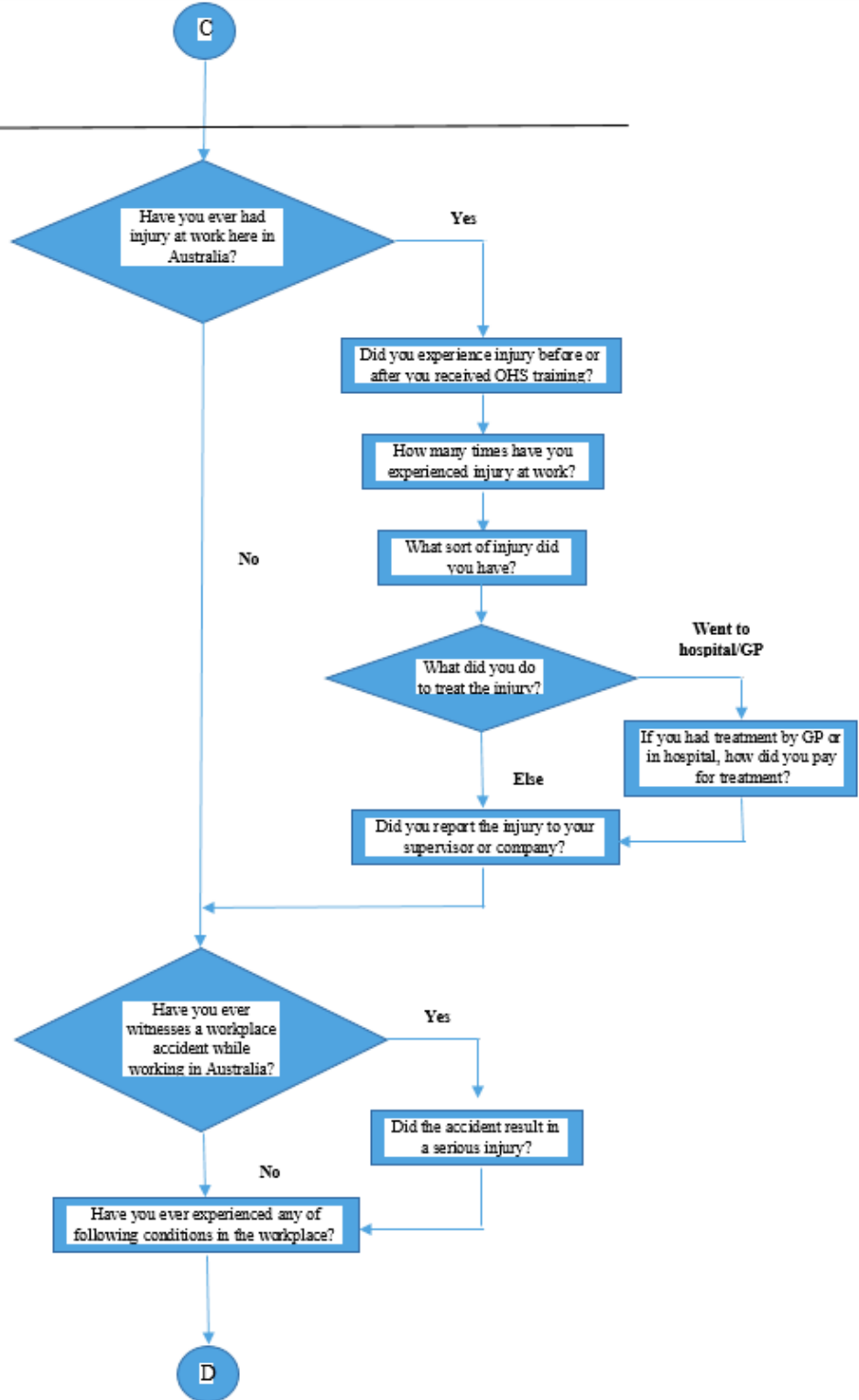
Part C. Training experience

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L

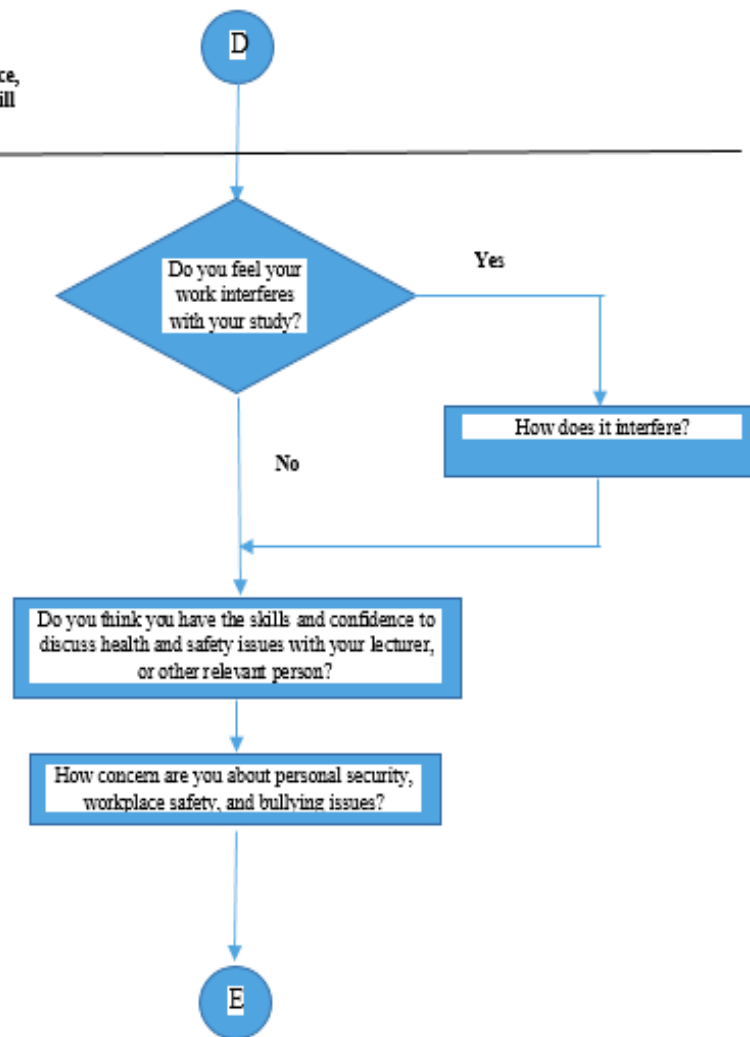
Part D. Injury experience

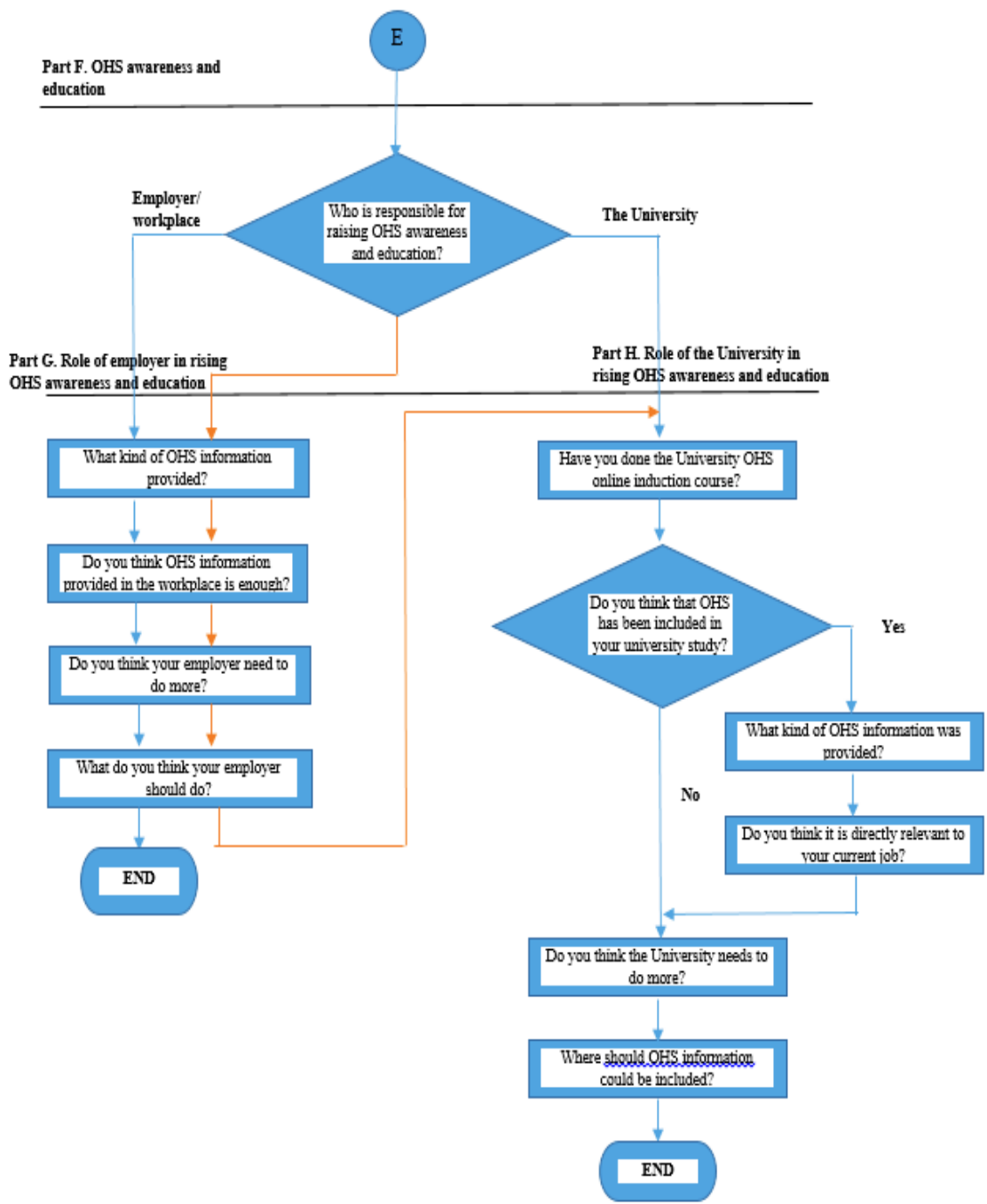




Part E. Work-study interference,  
Students' OHS perceptions, skill  
and confidence


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→ = Both

## Appendix 8. FGD flyer



**Are you international student?  
Are you in or after your second year of study?  
Do you have experience working while studying?  
Would you be willing to share your experience in a focus group?**

You are invited to participate in a focus discussion group to share your views on current practice of occupational health and safety (OHS) education in the university. Your opinions will provide valuable insight for research project being conducted by The University of Adelaide to develop strategy for improving occupational health and safety (OHS) for international student as young migrant workers.

Three focus groups will be held on campus on 21, 22 and 24 October 2013 at 12.00 pm in Hughes Building Level 8 Room 812a North Terrace Campus. The sessions will last up to 1.5 hour and **lunch will be provided**. Each participant will receive a **\$30 Woolworths voucher** to offset the cost of participant.

Participation is entirely voluntary and any information that you provide will be kept strictly confidential.

If you are interested in taking part, please email your name, country, study program (degree), and your appropriate session date to [yahya.thamrin@adelaide.edu.au](mailto:yahya.thamrin@adelaide.edu.au). Registration closes on Monday, 14 October 2013. You will receive an email to confirm your registration and provide further details about the session.

|   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|
| <a href="mailto:yahya.thamrin@adelaide.edu.au">yahya.thamrin@adelaide.edu.au</a><br>Phone: 0481170995 – OHS FGD | <a href="mailto:yahya.thamrin@adelaide.edu.au">yahya.thamrin@adelaide.edu.au</a><br>Phone: 0481170995 – OHS FGD | <a href="mailto:yahya.thamrin@adelaide.edu.au">yahya.thamrin@adelaide.edu.au</a><br>Phone: 0481170995 – OHS FGD | <a href="mailto:yahya.thamrin@adelaide.edu.au">yahya.thamrin@adelaide.edu.au</a><br>Phone: 0481170995 – OHS FGD | <a href="mailto:yahya.thamrin@adelaide.edu.au">yahya.thamrin@adelaide.edu.au</a><br>Phone: 0481170995 – OHS FGD | <a href="mailto:yahya.thamrin@adelaide.edu.au">yahya.thamrin@adelaide.edu.au</a><br>Phone: 0481170995 – OHS FGD | <a href="mailto:yahya.thamrin@adelaide.edu.au">yahya.thamrin@adelaide.edu.au</a><br>Phone: 0481170995 – OHS FGD | <a href="mailto:yahya.thamrin@adelaide.edu.au">yahya.thamrin@adelaide.edu.au</a><br>Phone: 0481170995 – OHS FGD | <a href="mailto:yahya.thamrin@adelaide.edu.au">yahya.thamrin@adelaide.edu.au</a><br>Phone: 0481170995 – OHS FGD | <a href="mailto:yahya.thamrin@adelaide.edu.au">yahya.thamrin@adelaide.edu.au</a><br>Phone: 0481170995 – OHS FGD |
|---|---|---|---|---|---|---|---|---|---|

## Appendix 9. FGD participant information sheet



### Participant Information Sheet – Focus Group

---

**Title of study:** International Students as Young Migrant Workers in South Australia - Role of the University in OHS Awareness and Education

**What are some general things you should know about this study?**

You are being invited to take part in a focus group. Your participation in this study is entirely voluntary. You may refuse to join, or you may withdraw your consent to be in this study, for any reason, without penalty. The focus group will be audio-taped, with your permission, so we can capture comments in a transcript for analysis.

This research study is conducted to explore work health and safety experiences and perceptions among international students as migrant workers in South Australia (SA) and the role of the university potentially could play in providing sufficient occupational health and safety (OHS) awareness and education for international students.

This research has been given ethics approval number HS-2013-045 from Human Research Ethics Committee (HERC) The University of Adelaide.

Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about being in this research study. After reading this information sheet you will be asked to sign a consent form if you are willing to participate. You can ask the researchers any questions you have about this study at any time.

**What is the purpose of this study?**

The purposes of this focus group are to evaluate current practice in raising OHS awareness and provision of health and safety education and what it is used to support international students to work safely in the workplace, and to explore the perception of academic and administrative staff in relation to OHS in the curriculum.

**How long will your part in this study last?**

Your participation in this focus group will last approximately 90 minutes. The focus group will be audio-taped, with your permission, in order to enable transcription.

**What will happen if you take part in the study?**

The group will be asked to discuss their knowledge several topics about OHS education.

**What are the possible risks or discomfort involved from being in this study?**

We do not anticipate any risks or discomfort to you from being in this study. Even though we will emphasize to all participants that comments made during the focus group should be kept confidential, it is possible that participants may repeat comments outside the group at some time in the future. Therefore, we encourage you to be as honest and open as you can, but remain aware of our limits in protecting confidentiality.

**How will your privacy be protected?**

Every effort will be taken to protect your identity as participants in this study. You will not be identified in any report or publication of this study or its results. Your name will not appear on any transcripts; instead you will be given a code number. All information will be kept in a locked file cabinet. After the focus group tape has been transcribed, the tape will be destroyed.

**What if you have question about this study?**

You have the right to ask, and have answered, any questions you may have about this research.

**If you would like further information or need assistance, please contact:**

**Mr. Yahya Thamrin**  
**Discipline of Public Health**  
**Mobile: 0481170995**  
**Contact email: [yahya.thamrin@adelaide.edu.au](mailto:yahya.thamrin@adelaide.edu.au)**

**A/Prof. Dino Pisaniello,**  
**Discipline of Public Health**  
**Ph: (08) 8303 3571**  
**Contact email: [dino.pisaniello@adelaide.edu.au](mailto:dino.pisaniello@adelaide.edu.au)**

**Dr. Cally Guerin**  
**School of Education**  
**Contact email: [cally.guerin@adelaide.edu.au](mailto:cally.guerin@adelaide.edu.au)**

## Appendix 10. FGD consent form



### CONSENT FORM

1. I have read the attached Information Sheet and agree to take part in the following research project:

|                                |  |
|--------------------------------|--|
| <b>Title:</b>                  | <b>International Students as Young Migrant Workers in South Australia:<br/>Role of the University in OHS Awareness and Education</b> |
| <b>Ethics Approval Number:</b> | <b>HS-2013-045</b>   |

2. I have had the project, so far as it affects me, fully explained to my satisfaction by the research worker. My consent is given freely.
3. I have been given the opportunity to have a member of my family or a friend present while the project was explained to me.
4. Although I understand the purpose of the research project it has also been explained that involvement may not be of any benefit to me.
5. I have been informed that, while information gained during the study may be published, I will not be identified and my personal results will not be divulged.
6. I understand that I am free to withdraw from the project at any time and that this will not affect my study at the University now or in the future.
7. I agree to the interview being audio/video recorded.    Yes     No
8. I am aware that I should keep a copy of this Consent Form, when completed, and the attached Information Sheet.

#### Participant to complete:

Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

#### Researcher/Witness to complete:

I have described the nature of the research to \_\_\_\_\_  
(print name of participant)

and in my opinion she/he understood the explanation.

Signature: \_\_\_\_\_ Position: \_\_\_\_\_ Date: \_\_\_\_\_

## **Appendix 11. FGD questions**

### **International Students as Young Migrant Workers in South Australia – Role of University in OHS Awareness and Education**

1. What do you think if I mention about “Occupational Health and Safety (OHS) Education”?
2. What kind of OHS education/training have you experienced in this university?  
Could you please specify that? Example: safety procedure, policy, personal protection, manual handling, right and responsibility for working related to visa etc.
3. To what extent do you think OHS education provided is directly relevant to the workplace or your current part time job?
4. To what extent you aware of the potential impact for health and safety issue such as illness and injury due to having a part time job?
5. To what extent you aware of the potential conflict between your job and your academic performance?
6. To what extent do you think it should be part of the curriculum in university?
7. In your view, how much is the university concerned about OHS education?
8. What do you think the role of university should be in teaching OHS? And what do you think the university needs to do for improvement?

## **Appendix 12. Conceptual model and self-measure of occupational health and safety vulnerability**

*The 29-item instrument to capture information that potentially associated with increased risk of injury (The items were derived from Smith et al. 2015)*

### *Hazards*

1. Have to manually lift, carry or push items heavier than 20kg at least 10 times during the day
2. Have to do repetitive movements with your hands or wrists (packing, sorting, assembling, cleaning, pulling, pushing, typing) for 3 hours during the day
3. Have to perform work tasks, or use work methods, that you are not familiar with
4. Interact with hazardous substances such as chemical, flammable liquids, and gases
5. Have to work in a bent, twisted or awkward work posture
6. Experience pain or discomfort as a result of your job
7. Work at a height that is 2 m or more above the ground or floor
8. Work in noise levels that are so high that have to raise your voice when talking to people less than one metre away
9. Have you been bullied or harassed at work
10. Have to stand for more than two hours in a row
11. Come to work feeling fatigued

### *Policies and procedures (P&P) at workplaces: At my workplace*

12. Everyone receives the necessary workplace health and safety training when starting a job, changing jobs or using new techniques
13. There is regular communication between employees and management about safety issues
14. System are in-place to identify, prevent and deal with hazards at work
15. Workplace health and safety is considered to be at least as important as production and quality
16. At workplace, there is an active and effective health and safety committee, and/or worker health and safety representation
17. Incidents and accidents are investigated quickly in order to improve workplace health and safety



18. Communication about workplace health and safety procedures is done in a way that I can understand

***Awareness (Aware): At my workplace***

19. I am clear about my rights and responsibilities in relation to workplace health and safety
20. I am clear about my employers' rights and responsibilities in relation to workplace health and safety
21. I know how to perform my job in safe manner
22. If I became aware of a health or safety hazards at my workplace, I know who (at my workplace) I would report it to
23. I have the knowledge to assist in responding to any health and safety concern at my workplace
24. I know what the necessary precautions are that I should take while doing my job

***Empowerment: At my workplace***

25. I feel free to voice concerns or make suggestions about workplace health and safety a my job
26. If I notice a workplace hazards, I would point it out to management
27. I know that I can stop work if I think something is unsafe and management will not give a hard time
28. If my work environment was unsafe I would not say anything, and hope that the situation eventually improves (reverse scored)
29. I have enough time to complete work task safely.