

1-1-2007

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Anura De Zoysa
University of Wollongong, anura@uow.edu.au

Kathleen M. Rudkin
University of Wollongong, krudkin@uow.edu.au

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Recommended Citation

De Zoysa, Anura and Rudkin, Kathleen M.: The effects of employment on academic performance of Australian accounting students 2007, 1-29.
<https://ro.uow.edu.au/commpapers/1118>

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Keywords

effects, employment, academic, performance, Australian, accounting, students

Disciplines

Business | Social and Behavioral Sciences

Publication Details

De Zoysa, A. & Rudkin, K. M. (2007). The effects of employment on academic performance of Australian accounting students. 7th Global Conference on Business & Economics (pp. 1-29). Lynchburg, VA: Association of Business and Economics Research.

**The Effects of Employment on Academic Performance of
Australian Accounting Students**

Dr Anura De Zoysa

School of Accounting and Finance
University of Wollongong
Wollongong, NSW 2500
Australia
Tel: 61 2 42215382
Fax: 61 2 42214297
E-mail: anura@uow.edu.au

And

Dr Kathy Rudkin

School of Accounting and Finance
University of Wollongong
Wollongong, NSW 2500
Australia
Tel: 61 2 42213148
Fax: 61 2 42214297
E-mail: krudkin@uow.edu.au

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ABSTRACT

This study examines factors that impact students engaged in paid employment while studying in a tertiary accounting program in a regional Australian university. It examines the differences in experience of domestic and international students. No direct significant relationship was found between paid employment and academic performance for the overall study sample. There was a positive relationship found between paid employment and academic performance with respect to domestic students. However, in the case of international students a negative relationship between paid employment and academic performance was observed. A significant positive relationship between a shift work pattern of paid employment and academic performance was found.

The Effects of Employment on Academic Performance of Australian Accounting Students

1. INTRODUCTION

This study makes a contribution to the literature identifying and examining the factors that impact student performance in tertiary accounting programs. Much of this existing literature is located within the United Kingdom and North American institutions. Documented factors in these studies include the impact of gender, prior knowledge of accounting, academic aptitude, mathematical background, previous working experience, age, class size and class attendance. However, more recently, observations of accounting academics suggest a new factor to be examined in the Australian context, the socio-economic circumstances as represented by their need for paid employment of accounting students. Anecdotal evidence suggests that in recent times more students are now working while studying, reducing the time available and quality of their efforts towards their accounting studies, for example many students miss or do not prepare for classes. University administrators have noted concern about student work patterns and student availability to spend time on their studies and participate in the university community life (Rudkin and De Zoysa 2007).

The contribution of this paper is to examine the impact of paid employment while studying on the academic performance of students in an accounting program in Australia. The impact is examined differentiating between domestic and international accounting students. This dichotomy is significant because there is currently a large international student enrolment in accounting programs in Australian universities driven by government immigration policy to address a skills shortage (Birrell and Rapson 2005). There is also a shortage in meeting the demand for accounting graduates in the domestic industry coinciding with a shift in the funding mechanisms for Australian domestic university students in recent years. The impact of the market demand for a skilled workforce and the effects of existing student funding on

work participation requires analysis. This paper investigates two aspects; first whether there is a relationship between paid employment and student performance, and secondly if there is a difference between the experiences of domestic and international students in paid employment and academic performance. Survey data of 170 enrolled students enrolled in a third year 12 credit point financial accounting subject at the University of Wollongong in the autumn session of 2006 was collected for this study.

2. PRIOR RESEARCH

There have been few studies identified that examine the relationship between student participation in paid employment and their academic performance in a tertiary accounting program. There have been no studies identified by the authors that examine the difference in employment on tertiary academic performance between domestic and international accounting students in Australia.

Gul and Fong (1993) conducted a Hong Kong study on first year accounting students, and found predictors of academic achievement to be personality type, grades achieved at the school certificate in mathematics and accounting, and previous knowledge of accounting.

A study by Wooten in 1998 examined 271 students taking introductory accounting at a major south-eastern American university of which there were 74 students identified as non-traditional defined as aged 25 years or older, and 127 traditional students aged under 25 years. Wooten found that for the traditional cohort grade history, motivations and family responsibilities all influenced the amount of effort these students made. However, neither extracurricular activities nor work responsibilities influenced their effort. However for the non-traditional students, motivation was the only variable that significantly influenced effort. Neither grade history nor extracurricular activities, nor work responsibilities, nor family responsibilities had an effect on motivations. Family activities had a significant negative

impact on effort for the traditional students, but not for the nontraditional students. It is conjectured by the authors of this paper that these differences in ages may also capture different socio-economic circumstances. Gose (1998) found an increase in the number of students employed over time, with 39% of students working 16 or more hours per week in 1998 compared with 35% working in 1993.

Naser and Peel (1998) and Koh and Koh (1999) documented much research done on common predictive factors of academic performance in accounting courses, including gender, prior knowledge of accounting, academic aptitude, mathematical background, previous working experience, age, class size, lecturer attributes and student effort. However, they note the findings are not definitive.

An Australian study done by Dobson and Sharma (1999) examined the relationship between student performance and the cost of failure, noting both the public and the private dimensions to the cost of failure. Similarly the Australian study by Booth et al. (1999) examined factors that impact upon accounting student academic performance, but failed to incorporate a socio-economic dimension. Booth et al. (1999) used the Approaches to Learning paradigm from the education literature to investigate the learning approaches of accounting students from two Australian universities, as compared to previously reported data for Australian arts, education and science students. This study provided evidence that Australian accounting students tend to take a superficial approach to learning typified surface learning such as rote memorization, while using lower deep learning approaches than their counterparts in Australian arts, education and science studies. Whether this is due to work factors has not been investigated.

Wijewardena and Rudkin (1999) undertook a study of students enrolled in a first year accounting program at a regional Australian university. They identified that students' attendance at tutorial classes, the commitment of a major in accounting and a demonstrated interest in accounting correlate positively and significantly with academic performance. They also find that local students perform better than their overseas counterparts and that part-time students (who work full time) outperform full time students.

Cheung and Kan (2002) contributed to the limited studies done outside the Western context. They examined factors related to student performance in a distance learning business communications course in Hong Kong. Their results based on studying 168 students showed females outperformed males, and a positive correlation between previous academic achievement and related academic background and student performance (p261). A positive correlation was found between tutorial attendance and student performance and between previous learning experience and student performance. No relationship was found between semester course loads and student performance. The results are consistent with prior Western studies.

A Welsh study by Gracia and Jenkins (2003) undertaken in the second and final year levels of an accounting degree considered gender, prior year performance and students' application to study and their relationship to student performance. Gracia and Jenkins argue that academic failure creates both emotional and financial costs for students, and that significant cultural differences may be attributed to academic success. This study found that if students are actively committed to self-responsibility for their studies, they tend to do well in formal assessment. They also found females outperform males in the second year and that there is a negative correlation between age and grades. Students who have work experience perform

significantly better than students who go straight from the second to the final year. They argue that the work experience allows students to get their finances in order thereby reducing the need for them to earn money while studying in the final year, thereby reducing financial and time management pressures.

Vickers et al. (2003) while not specific to students that study accounting, examined the effects of part-time employment of students on their participation and attrition in tertiary study in Australian universities. They report that the proportion of full-time students undertaking work has increased between 1990 and 2000 from 46% to 56%. They find that an inverse relationship between the number of face to face course hours and the drop out rate of tertiary students, with the more hours of classes the less the drop out rate. They also found that students working 20 or more hours per week are more likely to drop out of tertiary study by 160 – 200% than those who work less than 20 hours. Vickers et al. also find that students receiving Youth Allowance are more likely to drop out of tertiary study than those who do not receive Youth Allowance, despite the fact that the majority of this group do not work part time. They also observe that the odds of dropping out of university decrease by 31-32% if a student is from the highest socio-economic quartile as opposed to the lowest. Those who work between one and 20 hours per week are just as likely to continue in study as those who do not work at all during their studies. The Vickers et al. study is important because it signifies a change in the university experience not only for students but also for academic staff who teach working students.

Strong and Watts (2005) investigated factors affecting accounting student satisfaction at a small public university in New South Wales. They found improvements in the effective allocation of casual and full time staff and the introduction and of common subject outlines

lead to improvements in student performance indicators of satisfaction. Consistent with this theme, Hutcheson and Tse (2006) explained student non-attendance in class as student satisfaction with the teaching performance and course delivery.

Nonis and Hudson (2006) note that the Higher Education Research Institute at UCLA's Graduate School of Education has found that since 1987 the time students spend studying outside of class has declined each year, with only 47% spending six or more hours per week studying outside of class compared with 34% in 2003. Nonis and Hudson (2006) identify a need for empirical research to determine the impact of student work on academic performance, and its impact on the design of academic programs. Their study found a lack of evidence for a direct relationship between times spent working and academic performance.

Sullaiman and Mohezar conducted a study at the University of Malaya in their MBA program. They found conflicting evidence of the impact of work experience on student academic performance. They note studies by McClure, Wells and Bowerman (1986), Schellhardt (1988) and Dreher and Ryan (2000) finding a positive relationship between work experience and academic performance, but studies by Dreher and Ryan (2000, 2002 and 2004) Dugan et al. (2006) and Graham (2001) and Peiperl and Trevelyan (1997) found no relationship between students working and their grade point average. Sullaiman and Mohezar's study found that work experience is not related to MBA performance.

Hutcheson and Tse (2006) at the University of Technology Sydney found that on average students who attended more than half of the tutorials obtained a higher final mark than students who did not, and that this was particularly so for international students. This begs further research as to why, when students pay high fees for classes, they do not attend. This

paper identifies the need to investigate whether the need to work is one possible reason for this finding.

De Zoysa and Rudkin (2007) undertook a pilot study examining the relationship between academic performance and student socio-economic circumstances, which did not find a direct significant relationship between the number of hours of paid employment and student academic performance in accounting. However, a significant positive relationship between shift workers and academic performance was found.

James et al. (2007) undertook a non-discipline specific study encompassing a survey of 18,954 Australian public university undergraduate and postgraduate students. They found 70.6 per cent of full-time undergraduates reported working during semester two, 2006, working on average 14.8 hours per week, with one in every six full time undergraduate student working more than 20 hours per week. For students enrolled in a part-time pattern, 41.8 per cent were working at least 38 hours per week, which effectively means full time employment. The study found many students worked significant hours merely to afford basic living necessities such as transport, books and study materials, with 39.9 per cent of full-time students and 54.1 per cent of part-time students believing their work adversely impacted upon their studies.

The study of this paper contributes to the literature in that it uniquely examines differences between domestic and international accounting students in the Australian context of the impact of undertaking paid employment on their academic performance in a subject of an undergraduate accounting degree. This study makes two contributions to the accounting education literature. First, rather than a predominant focus on first year students, this study

examines second and final year accounting students in a regional Australian context. It uniquely examines differences between domestic and international accounting student experiences.

3. METHOD

Subjects of this study were drawn from School of Accounting and Finance at the University of Wollongong, a regional Australian university. The accounting program is professionally accredited with both requisite professional accounting bodies, CPA Australia and the Institute of Chartered Accountants in Australia. The degree is a full time three year program, with admission based on the standard University Admissions Index (UAI), or equivalent. Specific to these entry requirements, mathematics is not a compulsory entry requirement, though is recommended. There are no domestic undergraduate full fee paying students admitted to this degree. A prescribed program of study is required, with both compulsory accounting subjects using a prerequisite system, with opportunity for more liberal electives.

This study undertook a survey of 170 third year students in their final compulsory financial accounting subject in 2006. The students were questions about their academic experiences and socio-economic circumstances in the prior session, the Australian Spring Session 2005. To obtain a complete sample, students who failed their prerequisite subject in the prior session Spring 2005 were also surveyed to obtain a representative population. Academic performance for the purpose of this study is determined as the final grade in the second year financial accounting subject, ACCY201, studied in spring session 2005.

The research was conducted by paper surveys handed out in compulsory tutorial classes in the last week of session. Participation in the survey was optional. Both day time and evening

tutorial classes were surveyed, to ensure a representative mix of both part time and full time patterns of study and work commitments.

Of the 170 students surveyed, 101 (59%) of students are domestic students while 69 (41%) are international students. Those enrolled part time in the sample of 170 students are 34 (20%) while those enrolled full time are 136 (80%) of the sample. Of the domestic students, 45 (45%) are male and 56 (55%) are female. More domestic students are enrolled full time than part time, with 69 (68%) being enrolled full time compared with 32 (32%) being enrolled part time. More males are enrolled part time than females, with 18 (56%) of males enrolled in a part time pattern compared with 14 (44%) of females in part time study. There are 27 (39%) of domestic males compared with 42 (61%) of domestic females enrolled in a full time study program.

Australian government regulations require that international students be enrolled in a full time study pattern. The survey sample reflects this, with all but two of the 69 international students being enrolled full time. It is surmised that the two males enrolled in a part time pattern are completing remaining subjects needed to satisfy graduation requirements which would arise if subjects must be repeated. The pattern of male and female international students is similar to that of domestic students in the sample, with there being 30 (43%) international male students compared with 39 (56%) international female students. These demographic enrolment patterns are illustrated in Table 1 Enrolment Pattern below, which describes the relationships of male and female, full time and part time, and domestic and international students.

[INSERT TABLE 1 ABOUT HERE]

4. RESULTS AND DISCUSSION

Five aspects pertaining to the relationship between student employment patterns and their academic performance will be discussed. First section 4.1 will discuss the relationship between the hours worked in paid employment by students and their academic performance. Secondly, section 4.2 examines the type of employment mode students undertake and its impact on academic performance. Thirdly the impact of the nature of the paid work done by students and its impact on academic performance is considered in section 4.3. Section 4.4 explores the impact of travel time between students' places of employment, the university and their residences on academic performance. Section 4.5 documents student perceptions on the impact of their paid employment on their academic performance.

The research in these aspects seeks to discover the employment commitments of both full time and part time accounting students, whether the nature of this is different between international and domestic students, and whether these factors impact positively or negatively on the academic performance of accounting students. For the purpose of the survey, those working 20 hours or less a week are regarded as part time workers, consistent with the Australian government working regulations of student visas for full time international students. This is also consistent with a survey undertaken by Vickers et al. (2003) which while not unique to accounting students, found that 20 hours per week of paid employment was a significant indicator with respect to student performance because students who worked above this amount were most likely to withdraw from university study.

4.1 The relationship between hours worked and academic performance.

The survey gathered data on the employment patterns of the sample. Of the 170 respondents to the survey, 165 answered the question of whether or not they were working in paid employment. Of this 165 sample size, 38 (23%) indicated that they were not in paid

employment during the survey study period, while 127 (77%) indicated that they were in paid employment, either working full time or part time. The study seeks to compare the work patterns of students with their academic performance in accounting. Of the 165 students that answered in the affirmative to working while studying, subject results relevant to the period of their work was available for only 144 students. Therefore the sample size was reduced to 144 surveys. Academic performance was classified into three bands. The first band captured students achieving below 44 marks in a subject, indicating poor performance and a fail grade. The second band captured students achieving between 45- 64 marks indicating a satisfactory performance in terms of achieving a pass conceded or pass grade only. The third band captured students achieving a final subject grade of 65 or better, indicating a good performance of a credit grade or better in a subject.

The research reveals no significant relationship between the hours worked by a student and their academic performance in an accounting subject. 44 (31%) out of 144 students achieved poor academic performance. 49 (34%) achieved a satisfactory academic performance, while 51 (35%) achieved good academic performance. Of these students 31 (22%) did not work in paid employment, 71 (49%) worked between 1 and 20 hours per week, and 42 (29%) worked in paid employment 21 hours or more per week. This is illustrated in Table 2 Hours Worked and Student Performance, shown below.

[INSERT TABLE 2 ABOUT HERE]

The survey results were then tested to determine if there was a different relationship between the number of hours per week spent in paid employment and academic performance between domestic as compared to international students in an accounting subject. The results show the impact is different for each group. Acknowledging the limitation of the small sample size of only four domestic students not working, the results show that domestic students who are

working perform better academically than those who are not working. However, the finding for international students is the reverse. International students who are working perform less well academically than international students who do not work in paid employment. While possible reasons can be conjectured such they are working longer hours for lower rates, the determination of such factors is outside the scope of this paper. This is illustrated in Table 2.1 Hours Worked and Student Performance: Domestic Students vs International Students as shown below.

[INSERT TABLE 2.1 ABOUT HERE]

In the table above, it is shown international students in the poor student performance band demonstrate that as the number of hours of work increase, the does the percentage of poor performing students.

When considering student paid employment in the range between one and twenty hours per week, there are different relationships evident between employment and academic performance for international and domestic students. There were 43 domestic students and 28 international students who indicated they worked between one and 20 hours per week. Of the international students who work between one and twenty hours of paid employment per week, 12 (43%) were in the poor performance band, 10 (36%) were in the satisfactory performance band and 6 (21%) were in the good performance band. This is compared with the domestic student trends for paid employment between one and twenty hours per week which showed only 9 (21%) of domestic students in the poor performance band, 8 or 19% fell into the satisfactory performance band, and 26 or 60% met the good performance category criteria. This demonstrates that while part time employment between one and twenty hours a week is more consistent with better academic performance than not, the reverse is evident for

international students. Those international accounting students who worked between one and twenty hours were more likely than not to demonstrate poor academic performance.

This trend is more apparent in the band of hours worked per week being 21 hours and above. There were a total of 36 domestic students falling into this category, compared to only 6 international students. It is noted that under international student visa requirements, a maximum allowed paid employment is 20 hours per week. There were 6 international students who indicated they worked 21 hours and above, outside this legal requirement. Of these 6, 4 (67%) fell into the poor performance category of a fail grade between 0 and 44%. There was one international student in each of the other two categories. This again is a different trend to the domestic student experience. Generally domestic students working more than 21 hours per week in paid employment performed less well than similar students working only between 1 -20 hours. 10 (28%) of domestic students working 21 hours and above achieved a poor performance grade, while 18 (50%) achieved a satisfactory grade and 8 (22%) achieved a good academic grade.

These results show that domestic accounting students who are working perform better than those who are not working. However, for international accounting students the opposite trend is evident. Specific explorations to the reasons for these opposing trends are outside the scope of this initial survey. However, further analysis of this finding is offered from research done by Rudkin and De Zoysa (2007) who undertook a study of the socio-economic conditions of accounting students at a regional university in Australia in a comparable period. They undertook a survey of student hourly pay rates. Their findings are given in Table 3 below.

[INSERT TABLE 3 ABOUT HERE]

Rudkin and De Zoysa (2007) undertook a pilot social account from 162 questionnaires from students in their second session in the second year of an undergraduate accounting degree at a regional Australian university. In this survey students were asked to indicate their average gross pay rate. Hourly rates varied from under \$10 an hour to \$21 per hour and above. This data was then further analyzed for the purposes of this paper, finding differences between the pay rates achieved between domestic and international accounting students, as shown in Table 3.1 below.

[INSERT TABLE 3.1 ABOUT HERE]

Of the students who are paid less than \$10 per hour, 90% of these are international students. Rudkin and De Zoysa (2007, p.95) found that 18% of students in their study found were illegally underpaid while 20.7% indicated they felt exploited in their employment. It is conjectured by the authors that international students are more vulnerable to illegal and exploitative work practices with lower pay rates, and so must work longer hours to achieve the income necessary to support their study. This is identified as an area for further research.

4.2 Type of employment pattern and academic performance.

This section examines the relationship between the type of employment mode the students are employed under and their academic achievement in an accounting subject. Three categories of employment of students were identified, permanent work, casual work or contract work. Although conditions and entitlements vary across industry of employment, the three categories are reflective of patterns of work conditions, and entitlements with respect to vacation, sickness and family leave, regular hours, guaranteed income and hourly paid rates. The authors assumed that students employed in permanent positions have access to

paid leave, more economic certainty compared to students employed on a casual or contract basis, but they would also have less flexibility in their employment.

Of the sample surveyed, 112 students gave valid responses to the question of the nature of their employment to the three options of permanent, casual or contract. 18 students (16%) indicated they were in permanent employment. There were no international students employed in a permanent position. Overall 87 students (78%) stated they were employed under casual conditions. Of these 87 students 57 (66%) were domestic students and 30 (34%) were international students. A casual employment pattern is most predominant in the international student grouping, with only 57 out of a total of 79 (72%) domestic students who responded to the question indicating casual employment. This is in contrast with the international student cohort, where 30 out of 33 (91%) were employed on a casual basis. The number of students employed on the basis of a contract were minimal, with only 7 (6%) of students working in this form of employment. These results and their relationship to student academic performance are summarized in Table 4 below.

[INSERT TABLE 4 ABOUT HERE]

The chi-square test found no significant relationship between the mode of employment and student academic performance in an undergraduate accounting subject. However, it can be observed that students employed as a permanent worker performed better (22% poor performance compared to a combined 78% for satisfactory and good performance) compared to students employed as a casual worker (31% achieving a poor performance band) and as a contract worker (57% achieved a poor performance band). However, any comparison between domestic and international students of this data is not meaningful due to the small numbers in each category.

4.3 Nature of work patterns and performance

The authors investigated whether regardless of the mode of employment, the nature of the work patterns that student employment required may impact on their academic performance. It was assumed that students who worked shift work did not have a stable work and study pattern preventing or hindering their participation in classes and class preparations. That is, students working irregular shift work times and hours would experience different attendance and study patterns and opportunities compared with those students who worked set hours at regular times. Students were asked to nominate whether their typical work pattern was changing shift work to a roster, or regular hours. 87 valid responses were received to this question. 58 students (67%) indicated that they worked changing shift work compared with 29 (33%) who indicated they worked regular hours. The results of this question are shown below in Table 5.

[INSERT TABLE 5 ABOUT HERE]

An unexpected significant positive relationship was found between students who work changing shift work academic performance. Only 12 (21%) of student working changing shift work compared to 21 (72%) of those working regular hours were classified in the poor student performance band. 80% of students in the changing shift category achieved satisfactory or good academic results while only 27% of students with regular working hours achieved similar results. There were similar results observed between domestic and international students in this respect, with 69% of domestic students and 61% of international students working changing shift work hours. Only 14% of domestic students doing shift work achieved poor results, while 60% of students working regular hours achieved poor results. All of the 9 international students doing regular hours failed the subject. These relationships are described in tables 5.1 and 5.2 below. Table 5.1 gives a comparison between domestic

and international students' work patterns, and Table 5.2 below shows the relationship between both domestic students' and international students' work patterns and their academic performance.

[INSERT TABLE 5.1 ABOUT HERE]

[INSERT TABLE 5.2 ABOUT HERE]

Reasons for the favourable relationship between shift work and academic performance have not been sought in this study, but are identified as an area for further research. Conjecture as to the reasons include greater flexibility for students working shift work to arrange their rosters around their university class and assignment commitments, and the possibility that jobs requiring night shift work such as garage attendants require a presence but only ad hoc activity and so allow time on the job to be spent studying and completing class work.

4.4 Travelling time and performance.

The location of the university of this study is an Australian university located approximately 80 kilometres south of Sydney in the state of New South Wales. It is a regional university that includes the Southern parts of Sydney in its catchment area. Many students travel by public transport being rail from Sydney and a limited local bus service. The travel time from Sydney to Wollongong is approximately 1 ½ hours journey one way. Students residing or working in Sydney face a daily three hour transport commitment. Such a journey is not uncommon as the regional area has a high local unemployment rate and many students seek paid employment outside the region in Sydney. It is the assumption of the authors that time spent by students travelling detracts from their academic performance both because of the fatigue factor of travelling distances, and because travelling time is time not available for academic pursuits. Students were asked to indicate on average how long did a typical

journey take you to travel to the university. A summary of the results to this question is given in Table 6 below.

[INSERT TABLE 6 ABOUT HERE]

It is observed that 46% of students surveyed are spending more than one hour travelling each way when they attend the university. It was assumed by the authors that time spent travelling has a cost to the students both in time available at the University for study and financially in terms of the cost of how many days they attend the university. It was assumed that if students are working, the time spent travelling in addition to the hours they spend in paid employment has a combined impact on their availability to participate in academic tasks.

The relationship between time spent travelling and student performance was measured. No significant relationship was found between travelling time and academic performance of students who are not working. However, there is a significant relationship between academic performance and travelling time with students who are working. It was found that students who spend less time travelling perform better academically than students who spend more time travelling to university. This results are described in Table 6.1 below.

[INSERT TABLE 6.1 ABOUT HERE]

Student perception on the impact of work on studies.

The authors were interested in observing the perceptions of students of the impact of their paid employment on their academic studies. Students were asked whether “my exam and / or assessment marks would have been better if I had not been working”. Out of 124 valid responses from students who are working to this question, 51 (41.1%) answered in the affirmative, while 73 (58.9%) answered in the negative. That is, 41% of the students surveyed thought that their work interfered with their studies.

Students who indicated they were in paid employment were also asked the question whether or not they missed classes because of their work. 110 valid responses were received to this question. 42% indicated that they always missed classes because of their work commitments, while 11% indicated that most of the time classes were missed because of work commitments. While the findings suggest that there is no significant relationship between the amount of paid employment per week that students undertake and their academic performance, it does suggest that these students are deprived of a full academic experience in terms of full engagement with the campus community, networking opportunities and similar. The responses of students who admitted missing classes because of paid employment are shown below in Table 7.

[INSERT TABLE 7 ABOUT HERE]

Other reasons for missing classes given for students were that they were not prepared for class, because they lacked motivation, because they did not find the classes useful, because they had other illness or family or personal reasons, and because they had work commitments to complete in other subjects. The rankings of these reasons are given in table 7.1 below.

[INSERT TABLE 7.1 ABOUT HERE]

5. SUMMARY AND CONCLUSIONS

This study examines the relationship between employment and the study of accounting students in Australia. Given the high incidence of paid employment in the accounting student population and its impacts on academic performance, this study has ramifications for the nature of accounting program delivery in the Australian context in terms of times classes are offered and flexibility in delivery modes, and the quality of the university education experience with which students can engage.

Limitations of this study include use of self reporting by students, a small sample size. In addition, findings pertain to a regional university in the Australian context. While many tertiary institutions in Australia are regional in nature given the geographic and demographic characteristics of the country, this experience may be different and not generalisable to metropolitan institutions in Australia and outside the Australian context. Further testing at other institutions would contribute to the knowledge of the relationship between paid employment and academic performance for accounting students.

This study makes four findings. First, this investigation did not find a direct significant relationship between the hours students worked in paid employment and their academic performance in an accounting subject. However, contradictory results did emerge with respect to differences between domestic students and international students in a cohort. Secondly, while there was a positive relationship between paid employment and academic performance in relation to domestic students, there was a negative relationship between paid employment and academic performance for international students. Thirdly, with respect to international students, although a statistically significant relationship was not found, it seems that the academic performance of international students not working is better than that of working international students. Fourthly, a significant positive relationship between shift workers and academic performance was revealed that offers no obvious explanation and is identified as an area needing further research.

With respect to the quality of university education experience of accounting students, there are indicators that accounting students may not be optimally engaging in a full university experience because of work pressures. There were 9% of students are found to be working fulltime and studying full time simultaneously. The fact that many choose to miss classes for

work commitments does not afford them the opportunities associated with campus life including generic skill development of a social nature, networking with their future professional peers, and engagement with the benefits of cultural exchange with an international student body. Given that Vickers et al. (2003) found if students work more than 20 hours per week they are 160%-200% more likely to drop out of university, this has implications for attrition rates in accounting courses also. The authors contest that there is a need to explore further to understand the positive and negative impacts of paid employment on academic performance, and why differences exist between domestic and international students. This will aid in meeting the demand for good Australian accounting graduates.

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Table 1: Enrolment Pattern

		<i>Enrolled Part-time</i>		<i>Enrolled Full-Time</i>		<i>Total</i>	
		Count	%	Count	%	Count	%
Domestic (59%)	Male	18	56%	27	39%	45	45%
	female	14	44%	42	61%	56	55%
		32	100%	69	100%	101	100%
International (41%)	Male	2	100%	28	42%	30	43%
	female	0	0%	39	58%	39	57%
		2	100	67	100%	69	100%
		34	20%	136	80%	170	100%

Table 2: Hours Worked and Student Performance

<i>Hours worked</i>	<i>Student Performance</i>			<i>Number of Students</i>	
	<i>Poor</i> 0-44	<i>Satisfactory</i> 45-64	<i>Good</i> >65	Total	%
None	9	12	10	31	22%
1-20 hours	21	18	32	71	49%
21 and above	14	19	9	42	29%
	44	49	51	144	100%
$X^2 = 7.7491, P = 0.1012$					

Table 2.1: Hours Worked and Student Performance: Domestic Students vs International Students

<i>Domestic Students</i>								
<i>Hours worked</i>	<i>Student Performance</i>						<i>No. of students</i>	
	<i>Poor</i>		<i>Satisfactory</i>		<i>Good</i>		<i>Total</i>	<i>%</i>
	<i>0-44</i>	<i>%</i>	<i>45-64</i>	<i>%</i>	<i>>65</i>	<i>%</i>		
None	2	50%	0	0%	2	50%	4	100%
1-20 hours	9	21%	8	19%	26	60%	43	100%
21 and above	10	28%	18	50%	8	22%	36	100%
	21	25%	26	31%	36	43%	83	100%
$X^2 = 15.5083, P = 0.0037$ - Significant at 1% level								
<i>International Students</i>								
<i>Hours worked</i>	<i>Student Performance</i>						<i>No. of students</i>	
	<i>Poor</i>		<i>Satisfactory</i>		<i>Good</i>		<i>Total</i>	<i>%</i>
	<i>0-44</i>	<i>%</i>	<i>45-64</i>	<i>%</i>	<i>>65</i>	<i>%</i>		
None	7	26%	12	44%	8	30%	27	100%
1-20 hours	12	43%	10	36%	6	21%	28	100%
21 and above	4	67%	1	17%	1	17%	6	100%
	23	38%	23	38%	15	25%	61	100%
$X^2 = 4.1302, P = 0.3887$								

Table 3: Student Hourly Rate of Pay

<i>Pay Rate</i>	<i>Number of Students</i>	<i>%</i>
Less than \$10 per hour	13	18.6
\$11 to \$15 per hour	24	34.3
\$16 to \$20 per hour	22	31.4
More than \$20 per hour	11	15.7
TOTAL	70	100.00

Source: Rudkin and De Zoysa (2007), p.95

Table 3.1: Student Hourly Rate of Pay, Domestic and International Students

<i>Pay rate</i>	<i>Domestic students</i>		<i>International Students</i>		<i>Total</i>	
	Count	%	Count	%	Count	%
Less than \$10 per hour	2	10%	18	90%	20	100%
\$11 to \$15 per hour	22	67%	11	33%	33	100%
\$16 to \$20 per hour	26	79%	7	21%	33	100%
More than \$20 per hour	79	62%	49	38%	128	100%
	129		85		214	

Table 4: Type of Employment Mode and Performance

<i>Type of Employment</i>	<i>Student Performance</i>			<i>No. of Students</i>	
	<i>Poor</i> 0-44	<i>Satisfactory</i> 45-64	<i>Good</i> >65	Total	%
Permanent	4	9	5	18	16%
Casual	27	26	34	87	78%
Contract	4	1	2	7	6%
	35	36	41	112	100%

$X^2=5.2428$, $P=0.2633$

Table 5: Nature of Work Patterns

<i>Nature of work</i>	<i>Student Performance</i>			<i>Number of Students</i>	
	<i>Poor</i> 0-44	<i>Satisfactory</i> 45-64	<i>Good</i> >65	Total	%
Changing shift work	12	23	23	58	67%
Regular hours	21	3	5	29	33%
	33	26	28	87	100%

$X^2=22.2119$, $P=0.0000$ –Significant at 1% level

Table 5.1: Work Patterns and Academic Performance: Domestic and International Student Comparison

<i>Students</i>	<i>Nature of Work</i>	<i>Count</i>	<i>%</i>
Domestic	changing shift work	44	69%
		20	31%
	regular hours	64	100%
international	changing shift work	14	61%
		9	39%
	regular hours	23	100%

Table 5.2: Relationship between Work Patterns and Academic Performance

<i>Nature of work</i>	<i>Student Performance</i>			<i>Total</i>
	Poor 0-44	Satisfactory 45-64	Good >65	%
<u>Domestic</u> changing shift work regular hours	14%	41%	45%	100%
	60%	15%	25%	100%
	28%	33%	39%	100%
<u>International</u> changing shift work regular hours	43%	36%	21%	100%
	100%	0%	0%	100%
	65%	22%	13%	100%

Table 6: Travelling time

	Frequency	%
less than 30min	52	31
30min to 1 hours	39	23
1 hour to 1 1/2 hours	32	19
1 1/2 to to 2 hours	29	17
2 hours and above	17	10
Total	169	100.0

Table 6.1: Relationship Between Travelling Time and Student Performance

	<i>Student Performance</i>						<i>No of students</i>	
	<i>Poor</i>		<i>Satisfactory</i>		<i>Good</i>		<i>Total</i>	<i>%</i>
	0-44	%	45-64	%	>65	%		
Not working								
< 30 min	1	8%	6	50%	5	42%	12	100%
30 min to 90min	6	46%	4	31%	3	23%	13	100%
>90 min	2	33%	2	33%	2	33%	6	100%
	9		12		10		31	
$X^2 = 4.4447, P=0.34916$								
Working								
< 30 min	9	25%	10	28%	17	47%	36	100%
30 min to 90min	10	20%	21	43%	18	37%	49	100%
>90 min	16	59%	6	22%	5	19%	27	100%
	35		37		40		112	
$X^2 = 15.3437, P=0.004$ -Significant at 1% level								

Table 7: Students who missed classes due to paid employment

	<i>Frequency</i>	<i>%</i>
Never	22	20
Sometimes	19	17
About half the times	11	10
Most of the time	12	11
Always	46	42
Total	110	100

Table 7.1: Reason for missing classes

	<i>N</i>	<i>Mean</i>	<i>Rank</i>
missed classes as I wasn't prepared for the class	117	3.85	1
missed classes because of work	110	3.37	2
missed classes because of laziness/lack of motivation	124	3.28	3
missed classes as they are not useful	114	3.10	4
missed classes due to illness/family/personal reasons	129	3.01	5
missed classes because of work in other subjects	137	2.69	6