

## **Student Employment and Academic Performance at the University Level**

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### **EXTENDED ABSTRACT**

It has become commonplace for many full-time, as well as part-time, students to work during some, if not all, of their undergraduate college careers. Gose [1998] reported survey results in 1998 that indicated 39% of freshman college students worked at least 16 hours per week. More recent literature suggests that the percentage of full-time university students with jobs is now probably over 50% in the United States [Hawkins et al., 2005; Nonis and Hudson, 2006; Miller et al., 2008; Bennett et al., 2007; Bradley, 2006]. This situation is also prevalent in other countries [Bradley, 2006; Holmes, 2008; Callender, 2008]. Perhaps financial pressures from continually rising tuitions and fees are contributing to this trend of increasing employment during higher education. Other factors leading to more working students may include academic mandates for internship participation and the desire to gain social work experiences.

Observing late working students sleeping during class and listening to their pleas for extensions of due dates and make-up exams could lead to a generalized perception that working has a negative effect on students' academic performances. Associated with this perception of the influence of working on academic performance is the notion that time spent working potentially takes away from time spent studying. Nonis and Hudson [2006] cited inconclusive previous work on a relationship between studying and academic performance in looking at both time spent studying and time spent working and their effects on academic performance. Evidence for a positive relationship with studying was found by Pascarella and Terenzini [1991] and McFadden and Dart [1992], no relationship by Mouw and Khanna [1993], and less free time leading to higher GPAs by Ackerman and Gross [2003]. Zhang and Johnston [2009] also study the relationship of student employment with the corresponding academic performance during a specific academic semester and conclude that no significant relationship can be identified between number of hours working per week and semester grade point average. While many studies have been based on the assumption of potential negative employment impacts, it has also been documented that working can have a perceived positive impact on academic performance as well [Holmes, 2008].

In fact, studies seeking to imply cause and effect relationships between working and academic performance can be complex to compare due to their specific sample demographics,

use of non-objective self-reported predictors, and a lack of linkage to past academic performance. In order to provide a more comprehensive study in this research stream, the objective of this paper is to utilize a larger student sample in a university domain without major restrictions, establish a more reliable measure construct for student perceptions on the effect of working, and incorporate predictors of past academic performance and working experiences.

In order to perform a comprehensive analysis to reveal the role of employment in academic performance at a university level, student information on a comprehensive set of factors needs to be collected. The factors include demographics, current academic performance, past academic performance, current working information, past working information, and students' own perception on the working effect. Hence, working characteristics investigated here encompass not only how much students worked currently and in the past, the nature of their employment and why they worked, but also their perceptions of working effects on academic performance, such as low attendance due to working schedule conflicts, no job relevance to academic majors, low physical preparedness for study due to full time working, low mental preparedness for study, few out-of-class communication with fellow students and instructors, commuting and parking distractions, and so on.

The target population consists of the approximately 6,000 students in all the colleges of the authors' university. Students' current and past employment information and perceptions on working will be collected through an online survey instrument. After validating results from piloting the survey instrument, a formal online questionnaire will be set up to begin at approximately the 10<sup>th</sup> week of the fall 2009 semester. The online survey instrument will be open until the end of the fall 2009 semester in order to maximize the number of respondents. Prior to the beginning of the spring 2010 semester, official information will be retrieved regarding students' demographic information, academic performances (as measured by their semester GPAs), past academic performances (as measured by cumulative GPAs before the fall 2009 semester), and total earned credit hours before the fall 2009 semester. Note that all the academic information will be retrieved from the students' official records using their campus wide identification numbers. Therefore, the study avoids the inaccuracy of self-reporting problems in the past literature where the academic performance measurements are usually reported or estimated by the students themselves.

Preliminary data analysis will focus on the descriptive analysis for both categorical and continuous variables. Further, for categorical variables, one-way ANOVA (Welch's test) will be conducted to see any group differences with respect to academic performance [Lindman, 1974]. Tamhane test without equal variance assumption will be conducted to compare pair wise differences between group levels for any groups exhibiting significant differences. For continuous variables, Person zero-order correlation analysis will be conducted to avoid multi colinearity problems. For the measurement construct of student perception on working, since Likert scale questions will be used to measure items of the perceptions on working related factors, reliability analysis will be performed.

Stepwise Linear Regression will be used for the formal data analysis. The dependent variable is the academic performance of the 2009 fall semester as represented by the students' GPAs. Students' overall GPAs will also be studied as dependent variable based on their overall working information. In order to better control the factors of demographic information, basic academic standing information, past academic performance, and current employment information, stepwise models will be used to test the corresponding information by adding the regression variables in batches and observing the changed R-square [Hocking, 1976].

This research is an extension of a similar study performed during the Fall 2008 semester involving only the students of the College of Business Administration. Those results were presented at the 2009 conference in Oklahoma City. The authors are excited about the potential of this research to add significantly to that presented previously and to contribute to the existing body of knowledge on working and going to college. With an emphasis on university students, it is particularly suited to the conference attendees, and the authors would benefit greatly from their comments and suggestions. Working students are a fact of life and their numbers are growing. Understanding the situation is the first step in developing innovative approaches to deal with it effectively.

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