1993

The part-time employment of high school students: Relationship to school-related variables

Larry G. Eggink
University of Northern Iowa

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The part-time employment of high school students: Relationship to school-related variables

Eggink, Larry Gene, Ed.D.
University of Northern Iowa, 1993

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THE PART-TIME EMPLOYMENT OF HIGH SCHOOL STUDENTS:
RELATIONSHIP TO SCHOOL-RELATED VARIABLES

A Dissertation
Submitted
In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Approved:

Dr. Thomas Switzer, Chair
Dr. Margaret Ishler
Dr. Carmen Montecinos
Dr. Sharon Smaldino
Dr. Roger Betts
Dr. Charles Davis

Larry G. Eggink
University of Northern Iowa
December 1993
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December 1993

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THE PART-TIME EMPLOYMENT OF HIGH SCHOOL STUDENTS:
RELATIONSHIP TO SCHOOL-RELATED VARIABLES

An Abstract of a Dissertation
Submitted
In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Approved:
Dr. Thomas Switzer, Chair
Dr. John W. Somervill
Dean, Graduate College

Larry G. Eggink
University of Northern Iowa
December 1993
ABSTRACT

The majority of high school students, as many as 80%, have school-year employment prior to graduation (Steinberg, 1988). Many students who work at part-time jobs during the school year are putting in increasingly more hours, some in excess of 20 hours per week (D'Amico, 1984; Steinberg & Dornbusch, 1990). The purpose of this study was to examine the nature of the part-time employment of high school students as it relates to the following measures of academic involvement: GPA, time spent on homework, time spent in extracurricular activities, attitude toward school, classroom engagement, enrollment in math and science courses, and future plans for education. The study investigated three aspects of employment status: work intensity (number of hours worked per week), work situation (working at a job for pay or working at the family farm or business), and work time (working during the week or working only on weekends).

Thirty Iowa high schools were selected at random for participation in this study, and from each of the schools, one section of a junior English class was selected to complete the study's questionnaire. A total of 625 students were included in the study.

The data were analyzed with the use of both multivariate and univariate statistics. Students were categorized into three groups: non-employed students, students who worked less than 20 hours per week, and students who worked 20 or more hours per week. A discriminant analysis was employed to determine whether a linear combination of the measures of academic involvement could be used successfully to predict a student's membership in one of the three work intensity groups, and to provide a means to discriminate those measures that were more closely associated with the work intensity variable. A series of two-way
ANOVAs, ANCOVAs, Chi square tests, and \( t \) tests were employed to
determine whether there were differences in the measures of academic
involvement as a function of work intensity, work situation, and work
time. In addition to the inferential analysis, a descriptive analysis
of other employment features concerning both the employed and the non-
employed students provided information about students’ perceptions of
the impact of their employment on school-related variables, students’
spending and/or saving habits, types of jobs, and attitude toward work,
as well as students’ reasons for not having or not wanting a part-time
job.

Significant differences were found in all of the measures of
academic involvement between those students who worked 20 or more hours
per week and those students who were not employed or who worked less
than 20 hours per week. The tests revealed no significant differences
between the non-employed group of students and those students who worked
less than 20 hours per week. No significant differences were found in
the measures of academic involvement as a function of work situation and
work time.

The findings of this study suggest that the part-time employment of
high school students is not associated with lower scores on the measures
of academic involvement until the level of work intensity exceeds 20
hours per week.
CHAPTER I
INTRODUCTION

Statement of the Problem

The number of high school students entering the job market during the school year has increased in recent years. The majority of high school students, as many as 80%, have school-year employment prior to graduation (Steinberg, Brown, Cider, Kaczmarek, & Lazzaro, 1988). Many students who have part-time jobs are putting in increasingly more hours, some in excess of 20 hours per week (D’Amico, 1984; Steinberg & Dornbusch, 1990). This has created some concern among educators and parents who have been told that employment, while being beneficial, can also be potentially detrimental.

The basic problem addressed by this study was the nature of the relationship between student employment status and various measures of academic involvement among high school students. To better understand the complexity of this problem, employment status was operationalized along three dimensions: work intensity (the number of hours worked per week), work situation (whether the student’s employment was at a job for pay or at the family farm or business), and work time (whether the student worked during the week or only on weekends). The measures of academic involvement include grade point average (GPA), time spent on homework, time spent in extracurricular activities, attitude toward school, classroom engagement, enrollment in math and science courses, and future educational plans.

Justification for the Study

Since the 1980s, there has been a change in the way many researchers and educators view the value of part-time employment among
high school students. What had been considered a worthwhile endeavor with many positive aspects is currently being investigated for its potential detriment to the student's academic achievement (Brooks, 1989; D'Amico, 1984; Meyer, 1985; Steinberg & Dornbusch, 1990; Steinberg, Greenberger, Garduque, & McAuliffe, 1982).

Some studies within the past 10 years have found no significant differences in academic achievement between employed and non-employed students (Green & Jaquess, 1987; Hotchkiss, 1982), while others have shown working at a job to have a negative impact on achievement for employed students (D'Amico, 1984; Greenberger & Steinberg, 1980; Wirtz, Rohrbeck, Charner, & Fraser, 1987). This apparent inconsistency in the research findings suggested that the problem was one that required further study.

Because there are so many variables to consider, the problem is more complex than one might first imagine. This complexity may partly explain why the findings from previous studies have produced mixed results. Logic might suggest, for example, that there is an interrelatedness between the time a student spends at a job and the time he or she can spend doing homework or getting involved in an extracurricular activity. These factors in turn may be related to the student's GPA or to the types of courses the student chooses to take. But the time commitment to work, though an important factor, is only one element to be considered. Additional factors include the student's work situation and the time of week worked.

Concern for the welfare of the high school student is shared by parents and teachers alike. If education is deemed to be an essential ingredient for the success of the individual in today's society, then anything that might be disruptive of that process is worthy of careful examination. The number of students who are trying to balance their
work life with their school life has greatly increased over the past two or three decades. Between 1947 and 1980, there was an increase of 65% in the involvement of 16- and 17-year-old boys in the labor force, and a jump of 240% for girls of the same age (Greenberger, 1988).

The impact of students’ employment on school achievement is a serious concern, one that deserves close scrutiny as it impacts a large number of youths. Data in this study were collected that not only adds to on-going research in the area of part-time student employment, but should enlighten the discussion on this subject among educators, employers, parents, and the students.

Purpose of the Study

The purpose of this study was to examine the nature of the part-time employment of high school students as it relates to the following measures of academic involvement: GPA, time spent on homework, time spent in extracurricular activities, attitude toward school, classroom engagement, enrollment in math and science courses, and future plans for education.

Much of the previous research had defined the working student as one who is holding a job for pay (Goldstein, 1991; Green, 1990; Hamilton, 1988). This may be a shortcoming in the research since it ignores the students who put in as many or more hours working on the family farm or business and who may or may not receive pay. Since a major part of the concern with student employment revolves around the amount of time a student is involved at work, students who are employed without pay need also be considered as working students. Including students who work on the family farm or at the family business becomes increasingly important in school districts with a high rural population, such as Iowa.
Previous research had primarily considered the number of hours worked by the student within the period of a week (D'Amico, 1984; Goldstein, 1991; Lillydahl, 1990). The research reported on here also considered that factor, but in addition sought to determine if the time of employment (weekend only vs. week days or a combination of the two) had any bearing on the specified measures of academic involvement. It is probable that a student who only works on weekends may have more time during the week for doing homework and being involved in school activities. In a case such as this, the number of hours worked per week may have less of an impact on the academic measures than the time of week worked.

The purpose of this study then was to examine the relationship between the student's employment status and the various measures of academic involvement. Additionally, it sought to provide a descriptive analysis of the working and non-working student. This study provided a parallel with certain elements of previous research as it looked at the work intensity aspect, but also included additional features by examining both work situation and work time. By examining the variable of employment status from a dimension beyond work intensity alone, this study intended to provide a fuller understanding of the phenomenon of part-time employment among today's high school students.

The study does not seek to place into question the intrinsic value of work in the life of the student. The role of work in teaching young people greater responsibility, in introducing them to the realities of a market economy, and in providing some students with skills they may use in future full-time employment certainly has merit. This study was concerned with examining whether work intensity, work situation, and work time had any bearing on the students' achievement or involvement in school.
Research Questions

This study examined the relationship between three different aspects of work status and seven measures of academic involvement. In addition, the data collected also provided a profile of the working student and the non-working student. Specifically, the research questions considered in this study are as follows:

Impact of Work Intensity

1. On the basis of the measures of academic involvement (GPA, time spent on homework, time spent in extracurricular activities, attitude toward school, classroom engagement, enrollment in math and science courses, and plans for future education), can students be correctly classified by their work intensity (not employed, employed less than 20 hours per week, or employed 20 or more hours per week)?

On GPA

2. Is there a difference in the student’s GPA as a function of work intensity?

3. Is there an interaction between work intensity and gender as it relates to GPA?

On Time Spent on Homework

4. Is there a difference in the amount of time the student spends on homework as a function of work intensity?

5. Is there an interaction between work intensity and gender as it relates to the amount of time spent on homework?

On Time Spent in Extracurricular Activities

6. Is there a difference in the amount of time the student spends in extracurricular activities as a function of work intensity?

7. Is there an interaction between work intensity and gender as it relates to the amount of time spent in extracurricular activities?
On Attitude Toward School

8. Is there a difference in the student's attitude toward school as a function of work intensity?

9. Is there an interaction between work intensity and gender as it relates to the student’s attitude toward school?

On Classroom Engagement

10. Is there a difference in the student’s classroom engagement as a function of work intensity?

11. Is there an interaction between work intensity and gender as it relates to the student’s classroom engagement?

On Enrollment in Math and Science Courses

12. Is there a difference in the proportion of students enrolled in math courses as a function of work intensity?

13. Is there a difference in the proportion of students enrolled in science courses as a function of work intensity?

On Future Plans

14. Is there a difference in the proportion of students who plan to attend college as a function of work intensity?

Impact of Work Situation

On GPA

15. Among students who work, after controlling for the number of hours worked, is there a difference in GPA as a function of work situation (at a job for pay vs. at a family farm or business)?

On Time Spent on Homework

16. Among students who work, after controlling for the number of hours worked, is there a difference in the amount of time spent on homework as a function of work situation?
On Time Spent in Extracurricular Activities

17. Among students who work, after controlling for the number of hours worked, is there a difference in the amount of time spent in extracurricular activities as a function of work situation?

On Attitude Toward School

18. Among students who work, after controlling for the number of hours worked, is there a difference in attitude toward school as a function of work situation?

On Classroom Engagement

19. Among students who work, after controlling for the number of hours worked, is there a difference in classroom engagement as a function of work situation?

Impact of Work Time

On GPA

20. Among students who work, after controlling for the number of hours worked, is there a difference in GPA as a function of work time (weekend only vs. weekdays)?

On Time Spent on Homework

21. Among students who work, after controlling for the number of hours worked, is there a difference in the amount of time spent on homework as a function of work time?

On Time Spent in Extracurricular Activities

22. Among students who work, after controlling for the number of hours worked, is there a difference in the amount of time spent in extracurricular activities as a function of work time?
On Attitude Toward School

23. Among students who work, after controlling for the number of hours worked, is there a difference in attitude toward school as a function of work time?

On Classroom Engagement

24. Among students who work, after controlling for the number of hours worked, is there a difference in classroom engagement as a function of work time?

Analysis of Employed Students

25. Among working students, is there a relationship between the student's attitude toward school and his/her attitude toward work?

26. Among working students, what are their perceptions of the impact of employment on their school work and school activities?

27. Among working students, what are their spending and/or saving habits?

Analysis of Non-Employed Students

28. Among non-employed students, what are their reasons for not having, not wanting, or for quitting a job?

29. Among non-employed students, do those who are seeking a job differ in GPA from those who are not seeking a job?

30. Among non-employed students, do those who are seeking a job differ in the amount of time spent on homework from those who are not seeking a job?

31. Among non-employed students, do those who are seeking a job differ in the amount of time spent in extracurricular activities from those who are not seeking a job?
32. Among non-employed students, do those who are seeking a job differ in attitude toward school from those who are not seeking a job?

33. Among non-employed students, do those who are seeking a job differ in classroom engagement from those who are not seeking a job?

Definitions

Attitude toward School— a measurement of student responses to statements concerning their interest in, enjoyment of, or seeing the benefit of school and school activities.

Attitude toward Work— a measurement of student responses to statements concerning their interest in, enjoyment of, or seeing the benefits of their work (employment).

Classroom Engagement— a measurement of student responses to statements concerning effort in class, paying attention, concentration, and the tendency for mind-wandering.

Employment Status— a reference to the three variables concerning work: work intensity, work situation, and work time.

Future Plans— a reference to the student’s current plans for after graduation from high school, particularly as to whether the student plans to attend college.

Measures of Academic Involvement— variables used in this study as measurements of student achievement, attitude, or involvement in school (GPA, time spent on homework, time spent in extracurricular activities, attitude toward school, classroom engagement, enrollment in math and science courses, and future plans for education).

Non-Working Student— a student who, at the time the survey was administered, was not employed, and was either seeking or not seeking employment.
Job Seeker—a student who, at the time the survey was administered, was not employed, but was seeking employment.

Non-Seeker—a student who, at the time the survey was administered, was not employed, and was not seeking employment.

Part-time Employment—any regularly scheduled work, including work associated with the operation of the family farm or business, of two hours or more per week, performed during the school year by a person who is regarded as a full-time high school student.

Time Spent in Extracurricular Activities—a response by students that refers to the number of hours spent in extracurricular activities outside of the regular school day in the past week.

Time Spent on Homework—a response by students that refers to the average amount of time spent on homework outside of the regular school day per week.

Work Intensity—a reference to the number of hours committed to employment: not employed, employed less than 20 hours per week, employed 20 or more hours per week.

Work Situation—a reference to whether the student worked at a job for pay or at the family farm or business, regardless of pay.

Work Time—a reference to whether the student worked during the week or on weekends only.

Working Student—a student who, at the time the survey was administered, was employed part time.

Assumptions

The following assumptions were made in this study:

1. The subjects understood the questions in the survey instrument and provided accurate responses.
2. The school representatives administered the questionnaires precisely as instructed.

3. The random selection of schools in Iowa and of the junior English classes within those schools provided subjects that are typical of all juniors in the state of Iowa.

4. Students' jobs were not a part of their curricular responsibilities in their program of study. (Only 1% of the students who had jobs reported that the school had assisted them in acquiring the position.)

Limitations

The following limitations to this study were recognized:

1. The study focused only on high school juniors within the state of Iowa and should not be generalized beyond this population.

2. The study involved self-reporting on the part of the students. Student responses may not always be as accurate as desired. Research on self-reported GPAs has shown a strong positive correlation (.80) between the students' self-reported GPA and the actual GPA (Steinberg & Dornbusch, 1990). Students were asked to figure an average amount of hours per week for their involvement in extracurricular activities, for homework time, and for hours of employment. In cases where a range was provided, the average was used for the data entry (i.e. 10-14 hours was entered as 12 hours). Any fractions given in student responses were rounded to the nearest whole number.
CHAPTER II
REVIEW OF THE RELATED LITERATURE

Since the end of World War II, the number of adolescents in the work force has consistently been on the rise (Greenberger, 1988). The phenomenon has, however, taken on a different appearance in recent years. Instead of working and schooling being mutually exclusive activities, the two endeavors are now frequently pursued at the same time. The adolescent continues to be a student, and involvement in the labor force has become a part-time activity. Society now has what might be called the "student worker" or the "working student." Though perhaps not entirely new, this phenomenon has certainly become more commonplace in recent years.

The review of the literature is organized into five parts: (a) an historical-sociological background of adolescent employment in America, (b) the student worker at present, focusing on the number of students who are working and the number of hours worked; (c) academic performance, looking specifically at the literature on the impact of work on GPA, time spent on homework, teacher expectations, and classroom behavior; (d) student involvement and attitude, reviewing what has been written about the impact of work on involvement in extracurricular activities, types of courses taken, attitude toward school, and classroom engagement; and (e) worker characteristics, summarizing the research on the gender, race, socioeconomic status (SES), and spending/saving habits of working students.

Historical-Sociological Background

Prior to 1950, having a job as a teenager generally precluded one from attending school. Once a child's work could make a significant
contribution to the family's economic situation, the child was no longer a student. Only the affluent households would continue to send their teenage children to school. For them, having even a part-time job was uncommon. To be both a student and a member of the labor force was a rare occurrence.

Laurence Steinberg and Ellen Greenberger (1986), noted authorities on the subject of working teenagers, have investigated the phenomenon of adolescence and work from a historical perspective. For many teenagers, they claim, the transition from childhood to adulthood was an abrupt one. The move from student to laborer, whether in rural or urban settings, was immediate and necessary. Only in the more prosperous societies could there be an interim called adolescence in which the full participation of the child in the labor force was not required.

In pre-industrial America, the labor of children was valued for two reasons: it was cheap labor, and at the same time it instilled what people called "the Puritan virtue of hard work" as a worthy ambition within the child. Of course, at that time in U.S. history, education was not available to the masses. Thus, the problem of dividing one's time between school and a job did not exist. The two notions of inexpensive labor and the Protestant work ethic were, however, from an economic and sociological perspective, very real elements.

During and after the industrialization of America in the 19th century, the position of the child laborer began to change. The number of children in the labor force began to decline. At the same time, a call for universal free and compulsory education was sounded. It is the contention of Steinberg and Greenberger (1986) that the competition from the cheap labor of children caused workers' organizations to sponsor restraints on child labor and to push for compulsory education to keep them out of the labor force. Mechanization and immigration were already
creating a surplus of workers and a decline in wages. In some cases, it was easier for a child to get a job than for his father to get one, but at lower wages. It seemed, therefore, only practical to restrict child labor and to send the child to school. At the same time, the education might provide a better life for the child than that which his father had.

As we entered the 20th century then, the participation of the child in the labor force was on the decline. Less demand for cheap, unskilled labor and the potential need in the future for more highly trained or educated workers kept youngsters in school. Entry into the labor force was delayed and the length of formal education was extended. Between 1900 and 1940, the percentage of teenagers who completed high school rose from less than 10% to over 50% (Steinberg & Greenberger, 1986). By the middle of the 20th century, American society had established a "protected period of life" for its children, a time when they would not be forced to work, but to learn.

Since the end of World War II, the number of adolescents in the work force once again increased. This re-entrance into the job market, however, took on a different appearance. Instead of working and schooling being mutually exclusive activities, the two endeavors were now pursued at the same time. The teenager continued to be a student, and involvement in the labor force became a part-time activity. The job did not preclude the education. Though not entirely new, this phenomenon has become more commonplace than ever before in American history.

One explanation for this rather sudden growth of student employment can be seen within the labor market conditions. In the past 25 years, the decline of jobs within the manufacturing sector and the rapid growth in service and retail positions have led to an increase in
the number of jobs that are available to youth (Charner & Fraser, 1988). The ubiquitous fast-food restaurant is but one example of an enterprise that thrives on inexpensive, part-time employment. Students are not only willing to work at minimum wage but are willing to accept irregular work schedules and are less demanding and more docile than adults when it comes to benefits, rights, and the improvement of working conditions (Steinberg & Greenberger, 1986). Most of the service and retail jobs that are available hold little prospect for future growth or advancement, which is not a deterrent to students who, for the most part, do not plan to continue in these jobs after they have finished their education.

Another unique aspect of the situation of recent years when compared to the historical background is the lack of real economic need on the part of the families whose children are now working (Greenberger, 1988). As noted earlier, children who worked in the 19th century did so out of economic necessity. The income of the child went toward paying the debts of the family. Today’s youth who work do not appear to be laboring for the economic preservation of their families. More information about this topic is found under “Worker Characteristics.” The literature has shown that the part-time employment of students today has different characteristics than the employment of teenagers in years past.

Student Workers

Concerning the working student of recent years, two fundamental elements seem to be clear and undisputed: (a) more high school students than ever before are entering the labor force while maintaining their role as students, and (b) the work intensity, or number of hours worked per week, has steadily increased in recent years.
Number of Students with Part-Time Employment

Just how extensive is student employment today? In a study of 14 Georgia high schools, Berryman and Schneider (1982) found that only 19.1% of the students surveyed had never held a job during the school year, and only 1 in 10 expressed no interest in having a job.

In another study involving students in grades 10-12, the number of students not working steadily decreased from the sophomore to the senior year (D'Amico, 1984). Among seniors, 76% of white males and 73% of white females had jobs, and the steady increase in labor force experience for grades 11 and 12 was similar for all race and gender groups.

Laurence Steinberg and Ellen Greenberger (1986), noted authorities on the subject of student employment, claimed that as many as 80% of all high school students will have had a job during the school year at some point in their high school career. More recent studies have confirmed this claim. In his dissertation, Cockman (1989) examined this subject in selected North Carolina public high schools and found that 75% of the students held jobs while attending school.

Most of the recent studies reviewed showed an increasing number of student job-holders as the grade level progressed. Goldstein (1991) found that in the junior year, 66% of the students surveyed were employed; the figure was 80% for seniors. The current literature lends support to the position that more and more students are seeking and obtaining part-time employment while engaged in the process of their high school education.

Work Intensity

Of perhaps more serious concern to educators is the increasing amount of time that many students are committing to their part-time
jobs. Not only are more students gaining employment during the school year, many of them are spending more hours at the job than students have in the past. Although educators have been quick to affirm the values of employment toward the development of the adolescent, many have become somewhat skeptical about the value of employment that involves the student in over 15-20 hours per week (Gottfredson, 1985; Greenberger & Steinberg, 1980; Hamilton, 1988; Sedlak, Wheeler, Pullin, & Cusick, 1986).

Work intensity is a variable that is considered more completely in this review of the literature as it relates to the variables of student academic performance, involvement in school activities, and attitude toward school. At this point, it is sufficient to report what various studies have shown the level of work intensity to be.

Cockman (1989), whose study involved selected public high schools in North Carolina, reported that the average number of hours worked by high school students at all grade levels was 21.8 hours per week. D'Amico (1984), who used a nationally representative sample, found that the number of hours worked per week steadily increased from the sophomore to the senior year, with 31% of white males and 23% of white females in the senior year who had jobs, working over 20 hours per week.

In a Wisconsin study, conducted in 1981, a questionnaire was administered to 1577 juniors and seniors from four high schools, through which it was found that 73.7% of the students surveyed were working or had worked during the past year (McNeil, 1984). In two of the four high schools, of the students who worked, approximately one-third of them were putting in more than 20 hours per week, and 53.3% were working over 15 hours per week.

Berryman and Schneider (1982), whose study involved a sample of 14 Georgia high schools, found that among students who held a job, 60%
worked fewer than 21 hours per week, but 40% worked longer, usually equaling or exceeding hours spent in the classroom. A study by Donohue (1984), involving a sample of 165 11th and 12th grade students from a large suburban school, showed a mean of 23 hours per week for those students who were classified as workers.

In a more recent study, conducted in Tennessee, a survey which included opinion items was completed by both students and parents (McNelly, Mann, & Petty, 1990b). The results showed that the majority of parents thought student employment should be limited to 20 hours or less during the school year, but the majority of students did not agree. Parents were more concerned than the students were about what they considered to be excessive hours of employment and the potential consequences.

It is important to note that researchers have categorized the number of hours worked in different ways. The most common point at which the more recent studies have shown a significant relationship between work intensity and other variables is 20 hours per week. It is this level of work intensity that was used as a key variable in the present study.

Academic Performance

One does not have to search too far within the pages of educational literature to find concern for academic excellence, student achievement, or effective schools. State agencies and departments of education strive for improved standards in curriculum and instruction. Questions and concerns abound when the education report card for the United States places our nation below that of the educational levels of competing nations.
Parents and teachers alike are genuinely concerned about the academic performance of today’s children and young people. When something interferes with a child’s opportunity for success in school, it is usually the desire of all concerned to remove the barrier, if at all possible. Thus, the question of student part-time employment as it relates to academic performance has drawn the attention of educational researchers. Does the extensive employment of students during the school year raise a barrier to academic achievement?

Academic performance has been measured in a variety of ways. The research on this topic dealt with academic performance essentially in the following four areas: (a) grade point average (GPA), (b) time spent on homework, (c) teacher expectations, and (d) classroom behavior.

GPA

Research on the impact of part-time employment on a student’s GPA has produced conflicting results. Some studies refuted the contention that employment interfered with schooling, finding no significant differences in GPA between workers and non-workers (Berryman & Schneider, 1982; Green & Jaquess, 1987; Hotchkiss, 1982). In one study, when students were questioned about their perception of the impact of work on GPA, the majority responded that the job caused no change in their grades (Stone, Stern, Hopkins, & McMillion, 1990). In a similar report, most students thought that even working 20 or more hours would not hurt their grades (McNelly et al., 1990b).

More studies however have discovered a relationship between employment and GPA. Lillydahl (1990), using a national sample of 3,000 students, found that modest levels of employment did not interfere with student academic performance, but that the mean GPA dropped as the work hours increased, from a GPA of 3.17 (1 to 10 hours per week) to 2.63
(over 30 hours per week). Other studies confirmed the notion that increased hours of employment were related to lower GPAs (Barton, 1989; Brooks, 1989; Meyer, 1987; Steinberg & Dornbusch, 1990; Steinberg et al., 1982). It is important to note, therefore, that the more recent literature has suggested that our concern ought to be with the amount of work performed by students, not student employment per se.

Two studies showed a curvilinear relationship between hours worked and grades, with 20 hours being the point at which the negative effect began to emerge (Charner & Fraser, 1988; Schill, McCartin, & Meyer, 1985). In research by Barton (1989), who used a national sample of 11th grade students, those who worked 20 or more hours per week tended to exhibit the lowest proficiency in all academic subjects. He found that the academic performance of those who worked less than 20 hours per week was similar to that of non-workers.

When considering the relationship between GPA and work intensity, another problem arises. Is it the work intensity that influences the lower GPA, or is it the student's already low achievement that influences a desire to work more hours? In the research of Wirtz et al. (1987), a distinction was made between students who did and did not plan to go to college. Assuming that most college-bound students would place a strong emphasis on getting good grades, the researchers found that among the college-bound students who worked, the mean GPA was significantly lower for those working over 20 hours than for those working fewer (p < .05). This would, at least in part, control for a priori differences in academic performance.

Since a student's GPA is at least partly associated with the amount of time the student spends in study and completing homework assignments, time spent on homework is an important variable in the
assessment of academic performance. Some researchers have also considered this variable in relation to part-time employment.

**Time Spent on Homework**

Logic would suggest that the more time a student spends at a job, the less time there is available for other activities, such as doing homework, and the research does support this contention (Barton, 1989; D'Amico, 1984; McNelly et al., 1990b; Steinberg & Dornbusch, 1990; Steinberg et al., 1982). In each of these studies, the increase in commitment to a job was accompanied by a decrease in the amount of time spent on homework.

Barton (1989) discovered that students who work more than a moderate number of hours were more likely not to do assigned homework and considerably less likely to do two or more hours of homework per day when compared to non-working students or to those who worked 10 hours or less per week. A confounding factor that may diminish the significance of these results is the growth of evidence that very few students, workers and non-workers, spend much time on homework at all. According to the research, “studies that use this variable as an indicator of student investment may suffer from a ceiling effect” (Steinberg et al., 1988, p. 28).

It is also very possible that students who work continue to spend adequate amounts of time doing homework, but sacrifice time in other areas, such as sleep or recreation time. Budgeting and balancing pockets of time for their many activities and responsibilities can place students under undue pressure. Finch, Shanahan, Mortimer, and Ryu (1991) found that finding time to do homework was a stress factor among employed high school students.
When students do not complete their homework assignments, what happens at school? Depending on the individual teacher or classroom situation, the grades of the student may decline. Occasionally, students may find alternative and sometimes less than ethical ways of turning in a completed assignment. But another concern, which has been documented by research, related to the topic of academic performance, is the subject of teacher expectations.

**Teacher Expectations**

Two researchers have found that, due to the increasing demand of part-time employment on the students' time, teachers have lowered their expectations (Goldstein, 1991; McNeil, 1984). In a Wisconsin study, McNeil discovered through interviews with teachers that, as a result of growing student employment, many teachers assigned less homework, made assignments less challenging, and simplified their classroom lessons. She reported that teachers began to demand less of their students and less of themselves, leaving the demoralizing message that very little of any significance was happening in the school.

In a similar study on student part-time employment, conducted in Connecticut, Goldstein (1991) discovered that 35% of the teachers surveyed gave more class time for reading since students were less likely to come to class prepared. Nineteen percent gave fewer homework assignments, and 47% reported lowering their expectations in the last five years. If the busyness of some students, due to holding down a part-time job, results in the lowering of academic expectations on the part of the teachers, he concluded, the academic performance of all students will be affected in ways that may not be easily measured or noticed.
Classroom Behavior

A student's level of academic performance is also associated with certain aspects of classroom behavior. In comparing workers and non-workers, an early study found workers to have a greater rate of school absenteeism than non-workers (Greenberger & Steinberg, 1980). Lillydahl’s (1990) research revealed the same concern, especially for student workers whose employment was in excess of 15 to 20 hours per week.

Goldstein (1991) obtained teacher perceptions of certain observable behaviors displayed by their students. Forty percent of the teachers surveyed said that students “being absent more often” was a major problem. “Loss of interest in class” and “being tired in class” were reported as major problems by 40% and 62% of the teachers respectively.

These studies sought to uncover other possible effects of employment on the classroom beyond the comparison of GPAs. Their findings and conclusions suggest that work intensity is strongly related to the student’s ability to be an active participant in the educational endeavors of the classroom.

Student Involvement and Attitude

Another area of concern for research into student part-time employment is that of the student’s involvement in and attitude toward school. Does the student’s commitment to a job have any impact on his or her feelings about school or school activities? Under this heading, the research was divided into the following subsections: (a) involvement in extracurricular activities, (b) course selection, (c) attitude toward school, and (d) classroom engagement.
Involvement in Extracurricular Activities

The research generally has shown that working students are less involved in extracurricular activities, and that the lack of involvement becomes more pronounced as the work hours increase (Green & Jaquess, 1987; Greenberger & Steinberg, 1980; McNelly et al., 1990b; Steinberg & Dornbusch, 1990). Some researchers have, however, found no significant relationship between employment and involvement in extracurricular activities (Goldstein, 1991; Steinberg et al., 1982).

In the research by Goldstein (1991), however, the lack of significance may in part have been due to scheduling adjustments made by the activity sponsors. In his study, 98% of the teachers said they thought that student employment hurt involvement in extracurricular activities, that fewer students participated, and that attendance at meetings was negatively affected. Of the teachers directly involved in an activity, 60% said they changed the way they ran the activity because of student involvement in jobs. Therefore, the lack of significance reported in Goldstein's study could partly be explained by the fact that those who directed the activities were adjusting their schedules to accommodate the working students, providing a measure of flexibility to help keep them involved.

When students who had quit a part-time job were questioned about their reasons, the most frequently cited reason was "interference with school activities" (Berryman & Schneider, 1982). These authors concluded that the declining participation with age (from age 15 to 17) and the increasing time devoted to work "suggests that many students begin withdrawing from the total educational process prior to graduation" (p. 14).

In another study, students were interviewed about their work and its relation to school activities (Green, 1990). Five of the 35
interviewed were seasonal workers who worked only when the job did not interfere with the activity they wanted to be involved in. Three students did not work at all in order to avoid this interference, and four were classified as irregular workers who worked whenever they could while still participating in school activities.

There does appear, then, to be a relationship between work intensity and student involvement in extracurricular activities, but how strong that relationship is depends on many variables, such as the flexibility of scheduling or the seasonal nature of the activity in relation to the job. Another consequence of work intensity may be the possibility that for a student to be involved in these activities and still have a job, he or she might choose to enroll in courses that are less demanding of his or her time outside of class. Course selection, then, is another area of concern that falls under the heading of student involvement.

**Course Selection**

Beyond the required courses, high school students have the opportunity to choose from a certain number of elective courses, especially at the junior and senior level. College-bound students are encouraged to take a sufficient number of courses in math, science, English, and foreign language to meet the requirements for entrance into college. Many of these courses are more demanding of student time and effort, compared to taking an extra study hall or selecting a course with less homework requirements. Do high school juniors and seniors, particularly those with job commitments, in order to keep their grades up and lighten their homework responsibilities, select courses that in their estimation are less demanding?
Barton (1989) reported that as the number of hours at a job progressed beyond 20, the percentage of students taking Algebra II and chemistry diminished. Brooks (1989) found that working students were enrolled in significantly fewer semesters of mathematics than non-working students. In another study, 33% of the students in school-sponsored work experience took fewer courses, and 14% took what the students called “easier” courses (Stone et al., 1990).

If it is true that many working students are choosing to enroll in “easier” courses, it may also be true that this would make it easier for these students to keep their grades up, making it even more difficult for researchers to discern a significant difference in GPA between working and non-working students.

**Attitude Toward School**

As students who work many hours at a part-time job become less involved in school, does their attitude toward school change? A few studies have dealt with different aspects of what could be called attitude toward school, though many suggest that more research is needed in this area (D’Amico, 1984; Gottfredson, 1985; MacArthur, 1989).

Greenberger and Steinberg (1980) reported that students who work, more frequently than those who do not, said they enjoy school less, especially those who worked more than 15 hours per week. This finding was confirmed by Steinberg et al. (1982), as their research further showed that less school enjoyment was tied to more frequent absences and poorer school performance, which in turn was related to higher levels of work intensity. This finding gives further support to the contention of a strong interrelatedness between many variables.

D’Amico (1984) concluded that the early entry into the labor force, with its lure of financial rewards, may cause students to lose
their enthusiasm for schooling as early as the sophomore year. The ability to get a job and to earn money, he concluded, may be a factor in a student’s poorer attitude toward anything associated with school. This can be displayed by a lack of effort, a loss of interest, or a growing perception that education is of little or no benefit to future success.

MacArthur (1989), whose study involved a sample of 851 juniors from three public high schools in a southern city, further confirmed these results through an administration of Brown & Holtzman’s Survey of Study Habits and Attitudes. She reported lower scores among working students than among non-working students on the attitude measures.

Once again, however, not all of the studies supported the same conclusion. Gottfredson (1985) found that working did not significantly reduce students’ commitment to education or attachment to school. A more recent study reported that the majority of students felt that their job taught them the importance of a good education (Stone et al., 1990). Further research is required in order to seek more descriptive responses from students about the impact of having a job on their attitude toward school.

Classroom Engagement

In an attempt to probe even deeper into the relationship between student part-time employment and school involvement, Steinberg and Dornbusch (1990) developed a means to test a student’s classroom engagement. Their concern was focused on the degree to which the high school student was able to remain alert and involved in the activities of the classroom. They found that increased hours of employment was associated with lower levels of school engagement (paying attention in class less often, exerting less effort in school, higher levels of
mind-wandering in class, more school misconduct, and more frequent class-cutting).

Worker Characteristics

This portion of the literature review examined the characteristics of working students, particularly those of gender, race, and socioeconomic status (SES). In addition, research on the spending and/or saving habits of the working student was also reviewed.

Gender

The question of equal opportunities for members of both sexes has been raised quite frequently in the past 25 years, especially as it pertains to job and career opportunities. To determine whether the gender-related patterns of employment discrimination that exist in society as a whole are mirrored in the employment patterns of high school students was the purpose of a study by Meyer (1985). She gathered data from 39 public and private schools in the state of Washington, and found that males earned more than their female counterparts in higher status occupations. Her concern was that female students might endure an unequal labor market experience that could affect their assessment of future possibilities while still in the adolescent years.

Another study found no significant differences between male and female students in the number of hours worked or in hourly wages (Rohrbeck, 1988). Male students averaged 26 hours per week compared to 24 hours for female students. Significant differences between males and females were noted in the types of jobs held and in the reasons given for having a job.
As far as the number of students who work, comparing males to females, D’Amico (1984) reported that the percentage of males was slightly higher than the percentage of females. Among white students in this study, 46.5% of the sophomore males worked at a job some time during the school year, compared to 41.5% of their female counterparts. For juniors, the figures were 69.9% to 63.9%, and for seniors, 75.2% to 72.9%, respectively. For minority students, the pattern was similar, but the difference between males and females was more marked. Minority females had the lowest percentage among all student groups across all grade levels.

In a related study, conducted in four high schools in Wisconsin, McNeil (1984) found that the work intensity was not significantly different between male and female students. Among students who worked, the percentage of females who worked more than 15 hours per week was higher than that for males in one school, six percentage points lower in two schools, and the same in the remaining school. There does not appear to be a major gender difference in the amount of time spent at the job.

Race

From a randomly selected national population, one study showed a glaring disparity between the number of white students who worked and the number of minority students who worked (Gottfredson, 1984). Among students in grades 9-12, 67.9% of the white males worked compared to 42.7% of the black males and 39.1% of the Spanish (American) and 30.0% for Spanish (Puerto Rican). Among females, 60.6% of white females worked compared to 29.0% of the black females, 37.5% of the Spanish (American), and 33.9% of the Spanish (Puerto Rican). These results were confirmed by Charner and Fraser (1988), showing that white students are
more likely to be employed than minority students, and black female students employed even less than Hispanic female students.

Statistics compiled by D’Amico (1984) were also in agreement with these findings. His comparison of white working students to minority working students included figures from grades 10, 11, and 12, and showed that the disparity did not change significantly through the high school years. He did claim, however, that even though minorities had a more difficult time obtaining a job, once employed, the hours worked per week were similar to those of the white students.

**Socioeconomic Status (SES)**

In earlier generations, the adolescent worker did not attend school or else quit school in order to work. This adolescent was usually the product of a poorer family, or at least a family who depended upon the labor of its teenage children for economic survival. It was a rare occurrence to have an adolescent from an upper class family seeking employment. In today’s society, changes are noticed in the social and economic backgrounds of adolescent workers.

The focus of a study by Schill et al. (1985) was to determine if there were differences between employed and unemployed students based on the SES of the family. The sample used included over 4500 students from the state of Washington, with representation from both rural and urban areas from across the state. Duncan’s socioeconomic index (SEI) was used for coding parents’ occupations. Results showed that employed students were more likely to come from higher SES families, and unemployed students were more likely to come from lower SES families.

From this information, the decision to work, for the most part, does not seem to be a response to financial need. Other studies have confirmed this notion with conclusions that support a curvilinear
relationship between student employment and the family's SES (Charner & Fraser, 1988; Meyer, 1987), claiming that the highest rates of participation in the work force among students to be from the middle SES, with lower employment rates from the lower and higher SES groups.

**Spending and/or Saving Habits**

It logically follows that if more of today's student workers are coming out of middle and upper SES families, that the earnings are probably less likely to be used for supporting the family. Based primarily on self-reported data, studies have shown that working students are spending most of the money they earn for immediate needs or wants (Charner & Fraser, 1988; Goldstein, 1991). Goldstein (1991) found that students used most of their money for personal purchases, and that 42% of the students surveyed reported having little or no savings.

Charner and Fraser (1988) reported that of the working students in the study, 81% said that "having money for other things" was very important. In another study, the three most frequently cited reasons for working at a part-time job were "to buy clothes," "to have spending money," and "to buy a car" (McNelly et al., 1990b). It appears from the research that money for spending is a primary motivation for seeking part-time employment on the part of high school students. Saving for future education or supporting the family budget were of less importance.

**Summary**

Within the past decade, studies have verified the increase in the involvement of high school students in the job market during the school year. More recently, attention has been drawn to the increasing number of hours that many students commit to part-time jobs.
The benefits of such employment to the student notwithstanding, research has voiced a concern for the potential drawbacks that too great a time commitment to a job might have on the adolescent's educational success. Inconsistent findings about the effect of employment on educational variables have kept the issue very much alive in the fields of educational and vocational research.

Further study was necessary in order to bring greater clarity and understanding to an extremely complex phenomenon, and to examine the situation in Iowa. In addition to questions about work intensity, questions about the work time and the work situation as they relate to the various measures of academic involvement may help to bring this clarity.
CHAPTER III
METHODOLOGY

The methods followed in this study fall under the headings of (a) subjects, (b) instrumentation, and (c) procedures.

Subjects
Population
The population for this study consisted of high school juniors in the state of Iowa. Research has shown that freshmen and sophomores, though entering the labor force, are not working at part-time jobs to the same degree as are juniors and seniors. In some schools, seniors are less than full-time students and some may have earned a sufficient number of credits to qualify for early graduation. Therefore, using juniors in this study was the most appropriate and meaningful class level for the purpose of the research.

Sampling Method
A complete list of all Iowa high schools, both public and private, and their most recent enrollment figures was obtained from the Iowa Department of Education. From this list, on the basis of school size, a stratification of three categories was established. The purpose of the stratification was to provide the study with a representation from schools of different sizes. Natural breaks in the enrollment figures provided the basis for establishing the three strata. Schools with an enrollment of 700 or more students in grades 9-12 made up the first strata. Those with an enrollment between 200 and 700 students in grades 9-12 made up the second strata. The third strata of schools had enrollment figures of 200 or fewer students in grades 9-12.
Schools were selected at random from these three groups using a Table of Random Numbers, selecting 10 schools from each of the three size categories. Additional schools were included on the list to be used as alternates if necessary. From each of these 30 Iowa high schools, one section (or class) of junior English students was selected to participate in the study. This produced a sample size of 625 students who were selected to participate in the study. Of these, 37% attended the larger schools, 36% attended the medium-sized schools, and 27% attended the smaller schools. Of the 30 high schools, 29 were public schools and one was a private school.

The subjects who participated in this study were students, predominantly juniors, from 30 high schools in the state of Iowa. A small number of seniors, repeating junior English, were included in the sample. A frequency distribution of the students by age shows that 402 students (64%) were 17 years old and 183 students (29%) were 16 years old. Of the remaining 40 students, 33 were 18 years old, 6 were 15 years old, and 1 student was 19 years old. Of the 625 students in the study, 318 (51%) were female and 307 (49%) were male. As for race, 593 students (95%) were white, with the remaining 5% representing minority groups. Only four students (about 1% of those who had a part-time job) were assisted by the school in obtaining their current job.

Instrumentation

Questionnaire

Instrumentation for this study involved the administration of a questionnaire (see Appendix A) that was designed by the researcher, with the assistance of the Center for Social and Behavioral Research at the University of Northern Iowa. Some of the questions had been adapted from other studies (Brooks, 1989; Steinberg & Dornbusch, 1990). This
instrument included three sections: (a) school-related information, (b) work-related information, and (c) demographic information. Students who were not employed at the time the survey was administered were instructed not to complete the work-related section. The questions were written to elicit responses which allowed the researcher to test the hypotheses and answer the research questions.

Some of the questions required the subjects to check a response from a list of choices (n = 16). Other questions required them to fill in a blank with a brief response (n = 10). A few Likert scale items (n = 20) and open-ended questions (n = 3) were included in the questionnaire as well.

A cover letter (see Appendix B) to the questionnaire ensured the subjects that their responses would remain anonymous, and that the questionnaires would be read and used only by the researcher for the purposes of the research project. Names were not included on the instrument. The cover letter also informed the subjects that their participation was voluntary.

Testing of the Instrument

The questionnaire was administered to a junior class of students in a school not participating in the study. The purpose of this administration was to test the clarity of the questionnaire and the procedures of administration. Comments from the students in regard to the choices offered, word meanings, unclear directions, or suggestions that would improve the clarity and of the questionnaire were solicited. This test resulted in minor adjustments to the instrument. The testing of the instrument also provided the researcher with the necessary experience to develop an instruction guide for the school personnel who would be administering the questionnaire within their own classrooms.
Procedures

Sample Selection

Request for permission to conduct the survey within a school and to use instructional time for administration of the instrument was made at the time of the initial contact with the school superintendents (see Appendix C). Each superintendent was informed about the purpose of the study, that the anonymity of the school and the students would be maintained, and that the questionnaire should not take more than 15-20 minutes for most students to complete. Follow-up phone calls by the researcher enabled the school administrators (usually the superintendent or the high school principal) to ask questions about the study and to either grant or deny permission. If permission was denied, the next school from the list of randomly-selected schools was contacted for participation in the study. Of the original thirty schools selected, only three declined to participate.

If permission were granted, the researcher made a selection of one of the junior English classes in that school’s schedule, with no regard for the class size or the academic level of the students, and identified the number of students in that class so that the appropriate materials could be mailed to the school. The selection of the English class to use for the study was done by a rotation procedure (i.e., School A, first period of junior English; School B, second period of junior English; etc.). If a school had only one section of junior English, that class was used in the study. Request was also made at this time to use a school official to administer the instrument. The school administrator was assured that an instruction guide would accompany the materials sent to the school, and that no special training was needed prior to the administration of the questionnaire.
Collection of Data

The questionnaire was administered by school officials in one of the junior English classes within each of the 30 schools sampled. English classes were chosen since most, if not all juniors, are enrolled in English. Each subject, at the time of administration, received a copy of the questionnaire, a cover letter, and a legal-sized envelope. The cover letter instructed the student to place the completed questionnaire inside the envelope, to seal it, and to turn it in to the instructor. The instructor was asked to place all student envelopes into a larger self-addressed, postage-paid envelope (or mailer), which was then sent to the researcher.

In an effort to enhance the validity of students' responses, assurances were made to the students, via the cover letter and the use of sealed envelopes, that no one would see their responses but the researcher, and that the responses would only be used for the purpose of the research study. The school officials who administered and collected the questionnaires were instructed in the aforementioned procedures (see Appendix D). Students who were absent from the class at the time of the survey were not included as subjects in the study. No follow-up administration of the survey for the absentees was possible. Completed packages were received by the researcher from all 30 schools.

Hypotheses

The research and null hypotheses, numbered to correspond to the research questions as enumerated in Chapter 1, are listed below:

Work Intensity

Hypothesis 1: On the basis of the measures of academic involvement, students can be correctly classified by their work intensity.
Null: On the basis of the measures of academic involvement, students cannot be correctly classified by their work intensity.

**Work Intensity and GPA**

Hypothesis 2: There is a difference in the student’s GPA as a function of work intensity.

Null: There is no difference in the student’s GPA as a function of work intensity.

Hypothesis 3: There is an interaction between work intensity and gender as it relates to GPA.

Null: There is no interaction between work intensity and gender as it relates to GPA.

**Work Intensity and Time Spent on Homework**

Hypothesis 4: There is a difference in the amount of time the student spends on homework as a function of work intensity.

Null: There is no difference in the amount of time the student spends on homework as a function of work intensity.

Hypothesis 5: There is an interaction between work intensity and gender as it relates to the amount of time the student spends on homework.

Null: There is no interaction between work intensity and gender as it relates to the amount of time the student spends on homework.

**Work Intensity and Time Spent in Extracurricular Activities**

Hypothesis 6: There is a difference in the amount of time the student spends in extracurricular activities as a function of work intensity.

Null: There is no difference in the amount of time the student spends in extracurricular activities as a function of work intensity.
Hypothesis 7: There is an interaction between work intensity and gender as it relates to the amount of time the student spends in extracurricular activities.

Null: There is no interaction between work intensity and gender as it relates to the amount of time the student spends in extracurricular activities.

**Work Intensity and Attitude Toward School**

Hypothesis 8: There is a difference in the student’s attitude toward school as a function of work intensity.

Null: There is no difference in the student’s attitude toward school as a function of work intensity.

Hypothesis 9: There is an interaction between work intensity and gender as it relates to the student’s attitude toward school.

Null: There is no interaction between work intensity and gender as it relates to the student’s attitude toward school.

**Work Intensity and Classroom Engagement**

Hypothesis 10: There is a difference in the student’s classroom engagement as a function of work intensity.

Null: There is no difference in the student’s classroom engagement as a function of work intensity.

Hypothesis 11: There is an interaction between work intensity and gender as it relates to the student’s classroom engagement.

Null: There is no interaction between work intensity and gender as it relates to the student’s classroom engagement.

**Work Intensity and Enrollment in Math and Science Courses**

Hypothesis 12: There is a difference in the proportion of students enrolled in math courses as a function of work intensity.

Null: There is no difference in the proportion of students enrolled in math courses as a function of work intensity.
Hypothesis 13: There is a difference in the proportion of students enrolled in science courses as a function of work intensity.

Null: There is no difference in the proportion of students enrolled in science courses as a function of work intensity.

Work Intensity and Future Plans

Hypothesis 14: There is a difference in the proportion of students who plan to attend college, as a function of work intensity.

Null: There is no difference in the proportion of students who plan to attend college, as a function of work intensity.

Work Situation and GPA

Hypothesis 15: Among students who work, after controlling for the number of hours worked, there is a difference in GPA as a function of work situation (at a job for pay vs. at a family farm or business).

Null: Among students who work, after controlling for the number of hours worked, there is no difference in GPA as a function of work situation.

Work Situation and Time Spent on Homework

Hypothesis 16: Among students who work, after controlling for the number of hours worked, there is a difference in the amount of time spent on homework as a function of work situation.

Null: Among students who work, after controlling for the number of hours worked, there is no difference in the amount of time spent on homework as a function of work situation.

Work Situation and Time Spent in Extracurricular Activities

Hypothesis 17: Among students who work, after controlling for the number of hours worked, there is a difference in the amount of time spent in extracurricular activities as a function of work situation.
Null: Among students who work, after controlling for the number of hours worked, there is no difference in the amount of time spent in extracurricular activities as a function of work situation.

**Work Situation and Attitude Toward School**

Hypothesis 18: Among students who work, after controlling for the number of hours worked, there is a difference in attitude toward school as a function of work situation.

Null: Among students who work, after controlling for the number of hours worked, there is no difference in attitude toward school as a function of work situation.

**Work Situation and Classroom Engagement**

Hypothesis 19: Among students who work, after controlling for the number of hours worked, there is a difference in classroom engagement as a function of work situation.

Null: Among students who work, after controlling for the number of hours worked, there is no difference in classroom engagement as a function of work situation.

**Work Time and GPA**

Hypothesis 20: Among students who work, after controlling for the number of hours worked, there is a difference in GPA as a function of work time (weekend only vs. weekdays).

Null: Among students who work, after controlling for the number of hours worked, there is no difference in GPA as a function of work time.

**Work Time and Time Spent on Homework**

Hypothesis 21: Among students who work, after controlling for the number of hours worked, there is a difference in the amount of time spent on homework as a function of work time.
Null: Among students who work, after controlling for the number of hours worked, there is no difference in the amount of time spent on homework as a function of work time.

Work Time and Time Spent in Extracurricular Activities

Hypothesis 22: Among students who work, after controlling for the number of hours worked, there is a difference in the amount of time spent in extracurricular activities as a function of work time.

Null: Among students who work, after controlling for the number of hours worked, there is no difference in the amount of time spent in extracurricular activities as a function of work time.

Work Time and Attitude Toward School

Hypothesis 23: Among students who work, after controlling for the number of hours worked, there is a difference in attitude toward school as a function of work time.

Null: Among students who work, after controlling for the number of hours worked, there is no difference in attitude toward school as a function of work time.

Work Time and Classroom Engagement

Hypothesis 24: Among students who work, after controlling for the number of hours worked, there is a difference in classroom engagement as a function of work time.

Null: Among students who work, after controlling for the number of hours worked, there is no difference in classroom engagement as a function of work time.

Analysis of Employed Students

Hypothesis 25: Among working students, there is a difference between the student's attitude toward school and his/her attitude toward work.
Null: Among working students, there is no difference between the student's attitude toward school and his/her attitude toward work.

No hypotheses were tested for Research Questions 26 and 27, as they were examined through a descriptive analysis.

Analysis of Non-Employed Students

Research Question 28 did not involve the testing of a hypothesis, but was examined through a descriptive analysis.

Hypothesis 29: Among non-employed students, the GPA of students who are seeking a job will differ from that of students who are not seeking a job.

Null: Among non-employed students, the GPA of students who are seeking a job will not differ from that of students who are not seeking a job.

Hypothesis 30: Among non-employed students, the amount of time spent on homework by students who are seeking a job will differ from that of students who are not seeking a job.

Null: Among non-employed students, the amount of time spent on homework by students who are seeking a job will not differ from that of students who are not seeking a job.

Hypothesis 31: Among non-employed students, the amount of time spent in extracurricular activities by students who are seeking a job will differ from that of students who are not seeking a job.

Null: Among non-employed students, the amount of time spent in extracurricular activities by students who are seeking a job will not differ from that of students who are not seeking a job.

Hypothesis 32: Among non-employed students, the attitude toward school of students who are seeking a job will differ from that of students who are not seeking a job.
Null: Among non-employed students, the attitude toward school of students who are seeking a job will not differ from that of students who are not seeking a job.

Hypothesis 33: Among non-employed students, the classroom engagement of students who are seeking a job will differ from that of students who are not seeking a job.

Null: Among non-employed students, the classroom engagement of students who are seeking a job will not differ from that of students who are not seeking a job.

Analysis of Data

Due to the number and differing nature of the variables in this study, the analysis of the data involved a variety of statistical procedures. Most of the research questions involved the testing of a null hypothesis. Whenever such was the case, the null hypothesis was rejected at the .05 level of significance.

The analysis of data for this study included three sets of analyses: (a) a descriptive analysis of the students, both the employed and the non-employed, on a series of measures, (b) a statistical testing of the hypotheses listed above, and (c) a descriptive analysis of student responses to questions that did not involve the testing of a hypothesis, but do address the research questions of the study. The first and third sets of analyses required the reporting of descriptive information such as frequency counts, percentages, crosstabulations, and the citing of student comments to open-ended questions.

The second set of analysis involved a series of statistical procedures to test the various hypotheses. The SPSS and SAS statistical software packages were used for the data analysis. The statistical tests used for each of the hypotheses are listed below:
Hypothesis 1 was tested by means of a discriminant analysis. This was used to determine whether a linear combination of the measures of academic involvement could be used successfully to predict a student's membership in one of the three work intensity groups. This analysis also provided a means to discriminate those measures of academic involvement that are more closely associated with the work intensity variable.

Hypotheses 2 through 11 were tested through two-way analysis of variance (ANOVA). This test was used to determine whether there were differences between the three work intensity groups on the mean scores for each of the measures of academic involvement. If significant differences were found, a Tukey post hoc test was utilized to determine where among the three groups the differences existed. Additionally, the ANOVA tests examined if the impact of work intensity on the measures of academic involvement was different depending upon the student's gender.

Chi-square was used to test Hypotheses 12 through 14. Since the measures of academic involvement for these hypotheses were categorical in nature (enrolled in science or not, enrolled in math or not, planning to attend college or not), a chi-square analysis was used to determine whether these three dichotomous measures and the levels of work intensity were associated.

Hypotheses 15 through 24 were tested through analysis of covariance (ANCOVA), with the co-variate being the number of hours worked per week. This test was used to determine if there were differences in each of the measures of academic involvement between the two levels of the work situation (job for pay vs family farm or business) and then for the two levels of work time (weekends only vs week days), after adjusting for the number of hours that the student worked per week. Using the covariate, this test removed any differences.
that might have been found in the dependent variables as a result of hours worked, in order that the differences found could be attributed to the independent variables of work situation or work time.

Hypotheses 25 and 29 through 33 were tested through the use of $t$ tests. In the case of Hypothesis 25, a correlated sample $t$ test was used to determine if there were differences in the mean scores of the employed student's attitude toward school and his/her attitude toward work. In Hypotheses 29 through 33, independent sample $t$ tests were used to determine if, among non-employed students, those who were seeking a job differed in the measures of academic involvement from those students who were not seeking a job.
CHAPTER IV
RESULTS

The data collected and examined in this study are presented here in two sections: (a) an examination of the research questions related to employment status as it is viewed through the independent variables of work intensity, work situation, and work time, and (b) an analysis of other employment features that relate to both the employed and non-employed students.

Employment Status

Research Questions 1-24 required an examination of the eight measures of academic involvement (GPA, time spent on homework, time spent in extracurricular activities, attitude toward school, classroom engagement, enrollment in math, enrollment in science, and future educational plans) as they were impacted by the independent variables of work intensity, work situation, and work time.

Work Intensity

Work intensity, for the purposes of this study, is a reference to the number of hours a student was involved in part-time employment at the time of the survey. The variable was created by grouping students into one of three categories: Group 1, students who were not employed; Group 2, students who were employed less than 20 hours per week; and Group 3, students who were employed for 20 or more hours per week. Of the 625 students who participated in this study, 231 students (37%) were not employed, 200 students (32%) were employed and reported working less than 20 hours per week, and 194 students (31%) were employed and...
reported working 20 or more hours per week. For the sake of convenience, whenever the variable of work intensity is at issue, these groups are referred to in this study as Group 1, 2, and 3 respectively.

Research Question 1: Discriminant Analysis

A multiple discriminant function analysis was utilized to determine if, on the basis of the eight measures of academic involvement (discriminating variables), one could successfully classify students by their work intensity group. The discriminant analysis, using a stepwise discriminant function, had a canonical correlation of 0.309, and the chi square test (df = 10) found the discriminant function to be significant ($\chi^2 = 46.770, p < .05$). The group centroids, however, for Groups 1 and 2 were very close (0.251 and 0.186 respectively), and only 42% of the cases could be correctly classified, with the greatest degree of error found between Groups 1 and 2. The discriminating variables were not good predictors of membership in these two groups, but were more successful at discriminating membership in Group 3, where the group centroid was -0.473. Consequently, a second discriminant analysis was employed after collapsing Groups 1 and 2 together.

In this two-group analysis, the stepwise analysis included six variables in the discriminant function, the strongest discriminating variables being time spent in extracurricular activities and time spent on homework, both factors that relate to the use of time. The canonical correlation for the second discriminant analysis was 0.3121, and the chi square test (df = 6) found the discriminant function to be significant ($\chi^2 = 44.168, p < .000$). Group centroids were 0.224 for the collapsed Groups 1 and 2, and -0.479 for Group 3. The percentage of accurate classification rose to 65%. The discriminant function is
\[ D_1 = 0.17(GPA) + 0.40(THW) + 0.46(TEC) - 0.38(AS) + 0.19(EM) + 0.25(FEP) \]

where GPA stands for grade point average, THW stands for time spent on homework, TEC stands for time spent in extracurricular activities, AS stands for attitude toward school, EM stands for enrollment in math, and FEP stands for future educational plans. Two variables were excluded from the equation: classroom engagement (CE) and enrollment in science (ES). These two variables did not add to the discriminating function since they have a strong correlation to the variables of attitude toward school and enrollment in math, respectively (see Table 1).

Table 1

Correlation Matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group 1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. GPA</td>
<td>-0.154**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. THW</td>
<td>-0.208**</td>
<td>0.130**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. TEC</td>
<td>-0.160**</td>
<td>0.152**</td>
<td>0.161**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. AS</td>
<td>0.189**</td>
<td>-0.361**</td>
<td>-0.172**</td>
<td>-0.079</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. CE</td>
<td>0.119**</td>
<td>-0.291**</td>
<td>-0.262**</td>
<td>0.037</td>
<td>0.460**</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. EM</td>
<td>-0.138**</td>
<td>0.272**</td>
<td>0.173**</td>
<td>0.093*</td>
<td>-0.168**</td>
<td>-0.117**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>7. ES</td>
<td>-0.155**</td>
<td>0.289**</td>
<td>0.157**</td>
<td>0.143**</td>
<td>-0.161**</td>
<td>-0.107**</td>
<td>0.390**</td>
<td>1.00</td>
</tr>
<tr>
<td>8. FEP</td>
<td>-0.125**</td>
<td>0.283**</td>
<td>0.112**</td>
<td>0.063</td>
<td>0.185**</td>
<td>-0.137**</td>
<td>0.158**</td>
<td>0.221**</td>
</tr>
</tbody>
</table>

Note. "Group" refers to the two group analysis in which Groups 1 and 2 were collapsed and correlated with Group 3.
* p < .05. ** p < .01.

Research Questions 2-11: Two-Way ANOVA's

Following this multivariate analysis, a series of univariate analyses were utilized to examine the variable of work intensity as it
relates to each of the measures of academic involvement separately.
Research Questions 2-11 were concerned with finding differences in the measures of academic involvement as a function of work intensity, and whether any interaction occurred when gender was added to the analysis.

As shown in Table 2, female students outnumbered male students in Group 1 (61% to 39%), while male students outnumbered female students in Group 3 (59% to 41%). In comparing girls with boys simply as to whether

Table 2

Work Intensity by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Employed</td>
<td>&lt;20 hr/wk</td>
<td>20+ hr/wk</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>140 44</td>
<td>99 31</td>
<td>79 25</td>
<td>318 100</td>
</tr>
<tr>
<td>Male</td>
<td>91 30</td>
<td>101 33</td>
<td>115 37</td>
<td>307 100</td>
</tr>
<tr>
<td>Total</td>
<td>231 37</td>
<td>200 32</td>
<td>194 31</td>
<td>625 100</td>
</tr>
</tbody>
</table>

Note. Percentages are rounded to the nearest whole number and represent a percentage of the row total.

they were employed or not, a greater percentage of boys (n = 216, 70%) were working than girls (n = 178, 56%), at the time of the survey. When considering only the students who were employed (n = 394), a greater percentage of boys (n = 115, 53%) were working 20 or more hours per week than girls (n = 79, 44%).
A two-way analysis of variance (ANOVA) on each of five measures of academic involvement tested differences in means between the three work intensity groups, and if there was any interaction between work intensity and gender. The means for each of these measures by work intensity group is shown in Table 3.

Table 3
Means for Measures of Academic Involvement by Work Intensity

<table>
<thead>
<tr>
<th>Source</th>
<th>Work Intensity</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group 1</td>
<td>Group 2</td>
<td>Group 3</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n   M   SD</td>
<td>n   M   SD</td>
<td>n   M   SD</td>
<td>n   M   SD</td>
<td></td>
</tr>
<tr>
<td>GPA</td>
<td>199  3.04 .55</td>
<td>175  3.04 .58</td>
<td>180  2.85 .61</td>
<td>554  2.98 .59</td>
<td></td>
</tr>
<tr>
<td>THW</td>
<td>230  6.18 5.84</td>
<td>200  5.16 4.57</td>
<td>193  3.52 3.26</td>
<td>623  5.03 4.8</td>
<td></td>
</tr>
<tr>
<td>TEC</td>
<td>199  7.54 6.85</td>
<td>169  7.18 8.02</td>
<td>171  4.87 6.68</td>
<td>539  6.58 7.2</td>
<td></td>
</tr>
<tr>
<td>AS</td>
<td>227  1.94 .48</td>
<td>190  1.95 .46</td>
<td>185  2.15 .52</td>
<td>602  2.01 .49</td>
<td></td>
</tr>
<tr>
<td>CE</td>
<td>226  2.40 .62</td>
<td>187  2.46 .56</td>
<td>191  2.58 .63</td>
<td>604  2.47 .61</td>
<td></td>
</tr>
</tbody>
</table>

Note. GPA was based on a 4.0 scale; THW and TEC were recorded as hours per week; AS and CE were based on a 1-4 Likert scale, with 1 being a more positive response.

Each ANOVA revealed a significant difference in the measures of academic involvement as a function of work intensity (see Table 4). The hypotheses that stated there would be differences in GPA, time spent on homework, time spent in extracurricular activities, attitude toward school, and classroom engagement (2, 4, 6, 8, and 10) were supported, and the null hypotheses were rejected (p < .05). Follow-up Tukey tests
Table 4
Two-Way ANOVA's (Work Intensity by Gender)

<table>
<thead>
<tr>
<th>Work Intensity (WI)</th>
<th>Gender (G)</th>
<th>WI x G</th>
<th>Within</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MS</strong></td>
<td>1.63</td>
<td>5.52</td>
<td>.006</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>4.92*</td>
<td>16.63*</td>
<td>.017</td>
</tr>
<tr>
<td>THW</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MS</strong></td>
<td>292.04</td>
<td>333.36</td>
<td>12.96</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>13.20*</td>
<td>15.06*</td>
<td>.59</td>
</tr>
<tr>
<td>TEC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MS</strong></td>
<td>431.19</td>
<td>302.92</td>
<td>195.92</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>8.52*</td>
<td>5.98*</td>
<td>3.87*</td>
</tr>
<tr>
<td>AS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MS</strong></td>
<td>2.31</td>
<td>.97</td>
<td>.171</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>9.81*</td>
<td>4.12*</td>
<td>.725</td>
</tr>
<tr>
<td>CE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MS</strong></td>
<td>1.36</td>
<td>1.77</td>
<td>.135</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>3.74*</td>
<td>4.87*</td>
<td>.371</td>
</tr>
</tbody>
</table>

* df = 1 for gender; df = 2 for work intensity; df = 5 for within. * p < .05.

revealed that the differences in GPA, time spent on homework, time spent in extracurricular activities, and attitude toward school were discovered between Group 3 (students who were employed 20 or more hours per week) and each of the other two groups. No differences were noted between Groups 1 and 2. For the variable classroom engagement, the post hoc test showed a difference only between Group 1 and Group 3. The results of these univariate tests, that differences are more discernible between Group 3 and each of the other two groups than they are between Groups 1 and 2, strengthen the findings of the discriminant analysis which also noted similarities between Groups 1 and 2.

The only interaction discovered between work intensity and gender was for time spent in extracurricular activities (F = 3.87, p < .05).
In Groups 1 and 2, boys reported spending more hours in extracurricular activities than girls, but in Group 3, the average amount of time spent in extracurricular activities by boys dropped below that of girls (see Figure 1). Since there was an interaction, the null statement for Hypothesis 7 was rejected, but the study failed to reject the null hypotheses (Hypotheses 3, 5, 9, and 11) in which the analysis revealed no interaction among work intensity groups between boys and girls for the variables of GPA, time spent on homework, attitude toward school, and classroom engagement.

Figure 1. Interaction plot for time spent in extracurricular activities by work intensity with gender.

Research Questions 12-14: Chi Square Tests

The variables "enrollment in math," "enrollment in science," and "future educational plans," as they are associated with work intensity (Hypotheses 12-14), were analyzed by using chi square tests. In each of
the three tests, the results allowed the researcher to reject the null hypothesis: for enrollment in math \( (df = 2, \chi^2 = 12.58, p < .05) \), for enrollment in science \( (df = 2, \chi^2 = 15.91, p < .05) \), and for future educational plans \( (df = 2, \chi^2 = 9.25, p < .05) \). In each of the tests, the greatest residual appeared in Group 3, indicating a greater discrepancy between the observed and expected frequencies for Group 3 than for Group 1 or 2. Students who worked 20 or more hours per week were less frequently enrolled in math and science courses and reported plans to attend college less frequently than students who were not employed or were employed less than 20 hours per week (see Table 5).

Table 5

<table>
<thead>
<tr>
<th>Source</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolled in a math course</td>
<td>91.0%</td>
<td>91.2%</td>
<td>82.4%</td>
</tr>
<tr>
<td>Enrolled in a science course</td>
<td>78.7%</td>
<td>82.0%</td>
<td>67.5%</td>
</tr>
<tr>
<td>Planning to attend college</td>
<td>72.2%</td>
<td>76.5%</td>
<td>58.8%</td>
</tr>
</tbody>
</table>

Work Situation

Work situation, for the purpose of this study, was a reference to whether the student was employed at a job for pay or was employed at the
family farm or business (whether paid or not). If a student reported being involved in both situations (23 cases), he/she was placed in the group for which the greater "number of hours worked" was reported. The non-employed students were not included in this portion of the analysis. Of those students who were employed, 316 (80%) were working at a job for pay, while 78 (20%) were working at the family farm or business. A crosstabulation of work situation by work intensity revealed no significant differences between the percentage of students working 20 or more hours per week and those working less than 20 hours per week within each of the two work situation categories.

Research Questions 15-19: ANCOVA’s for Work Situation

The testing of the hypotheses involving the measures of academic involvement and work situation (Hypotheses 15-19) required the use of analysis of covariance (ANCOVA). The use of the ANCOVA design permitted the researcher to statistically account for differences in the dependent variables that resulted from differences in the number of hours worked. The Type III Sum of Squares, a part of the General Linear Models (GLM) procedure of the SAS statistical package, was employed to adjust for the uneven cell sizes. The adjusted means for the five dependent variables by work situation are displayed in Table 6.

For each of the five variables, no significant F value was discovered for work situation (see Table 7). The results of the statistical tests showed that students who worked at the family farm or business did not have significantly different scores in GPA, time spent on homework, time spent in extracurricular activities, attitude toward school, or classroom engagement than students who worked at a job away from the home. Failure to reject the null statements for Hypotheses 15-19 thus resulted.
Table 6

Adjusted Means for Measures of Academic Involvement by Work Situation

<table>
<thead>
<tr>
<th>Work Situation</th>
<th>Job for Pay</th>
<th>Family Farm or Business</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>n  M  SD</td>
<td>n  M  SD</td>
<td>n  M  SD</td>
</tr>
<tr>
<td>GPA</td>
<td>312 2.96 0.60</td>
<td>43 2.86 0.65</td>
<td>355 2.94 0.61</td>
</tr>
<tr>
<td>THW</td>
<td>351 4.50 4.14</td>
<td>42 3.51 2.92</td>
<td>393 4.32 4.03</td>
</tr>
<tr>
<td>TEC</td>
<td>304 6.08 7.44</td>
<td>36 5.60 7.74</td>
<td>340 5.99 7.46</td>
</tr>
<tr>
<td>AS</td>
<td>333 2.04 0.50</td>
<td>42 2.10 0.50</td>
<td>375 2.05 0.50</td>
</tr>
<tr>
<td>CE</td>
<td>336 2.51 0.61</td>
<td>42 2.58 0.48</td>
<td>378 2.52 0.60</td>
</tr>
</tbody>
</table>

Note. GPA was based on a 4.0 scale; THW and TEC were recorded as hours per week; AS and CE were based on a 1-4 Likert scale, with 1 being a more positive response.

Work Time

In addition to work intensity and work situation, the variable work time was examined in this study. Work time was used as an independent variable of a dichotomous nature: working during the week or working only on the weekends. Here again, the non-employed students were not included in this portion of the analysis. At the time of the survey, 322 students (83% of those who were employed) reported working during the week or a combination of week days and weekends, while 65 students (17%) reported working only on the weekends.

A cross-tabulation of work time by work intensity revealed an uneven distribution between groups, with a greater frequency of weekend-only...
Table 7

ANCOVA's for Measures of Academic Involvement by Work Situation

<table>
<thead>
<tr>
<th>Source</th>
<th>Work Situation</th>
<th>Work Situation x Hrs Worked/Week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MS</td>
<td>F</td>
</tr>
<tr>
<td>GPA</td>
<td>1.372</td>
<td>3.82</td>
</tr>
<tr>
<td>THW</td>
<td>35.652</td>
<td>2.26</td>
</tr>
<tr>
<td>TEC</td>
<td>9.558</td>
<td>0.18</td>
</tr>
<tr>
<td>AS</td>
<td>0.335</td>
<td>1.38</td>
</tr>
<tr>
<td>CE</td>
<td>0.396</td>
<td>1.11</td>
</tr>
</tbody>
</table>

Note. df = 1 in each analysis.

students in the Group 2 level of work intensity. This is probably due to the fact that students who worked only on the weekends were less able to accumulate 20 hours of work per week than students who worked during the week.

Research Questions 20-24: ANCOVA's for Work Time

It was hypothesized that there would be differences in the measures of academic involvement as a function of work time (Hypotheses 20-24). The adjusted means for these five measures by work time are displayed in Table 8. Again, the null hypotheses for these five research questions, that no differences would be found, were statistically tested with the analysis of covariance, using the actual number of hours worked as the covariate. As in the previous ANCOVA's, the GLM procedure was utilized to adjust for the uneven cell sizes.
Table 8

Adjusted Means for Measures of Academic Involvement by Work Time

<table>
<thead>
<tr>
<th>Source</th>
<th>Weekdays</th>
<th></th>
<th></th>
<th>Weekends Only</th>
<th></th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>GPA</td>
<td>293</td>
<td>2.94</td>
<td>0.60</td>
<td>55</td>
<td>2.94</td>
<td>0.57</td>
<td>348</td>
<td>2.94</td>
</tr>
<tr>
<td>THW</td>
<td>321</td>
<td>4.20</td>
<td>3.80</td>
<td>65</td>
<td>6.49</td>
<td>5.06</td>
<td>386</td>
<td>4.83</td>
</tr>
<tr>
<td>TEC</td>
<td>276</td>
<td>4.98</td>
<td>6.49</td>
<td>57</td>
<td>14.00</td>
<td>9.16</td>
<td>333</td>
<td>7.73</td>
</tr>
<tr>
<td>AS</td>
<td>305</td>
<td>2.05</td>
<td>0.52</td>
<td>63</td>
<td>1.90</td>
<td>0.40</td>
<td>368</td>
<td>2.04</td>
</tr>
<tr>
<td>CE</td>
<td>310</td>
<td>2.51</td>
<td>0.61</td>
<td>61</td>
<td>2.42</td>
<td>0.50</td>
<td>371</td>
<td>2.50</td>
</tr>
</tbody>
</table>

Note. GPA was based on a 4.0 scale; THW and TEC were recorded as hours per week; AS and CE were based on a 1-4 Likert scale, with 1 being a more positive response.

After controlling for the number of hours worked, the analysis revealed no significant F value for GPA, time spent on homework, time spent in extracurricular activities, attitude toward school, and classroom engagement as a function of work time. Hypotheses 20-24 were not supported, and the null hypotheses were rejected (p < .05). Table 9 provides a summary of the results of the five ANCOVA's for the variable work time.
Table 9
ANCOVA's for Measures of Academic Involvement by Work Time

<table>
<thead>
<tr>
<th>Source</th>
<th>Work Time</th>
<th></th>
<th></th>
<th>Work Time x Hrs Worked/Week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MS</td>
<td>F</td>
<td>Sig</td>
<td>MS</td>
</tr>
<tr>
<td>GPA</td>
<td>0.466</td>
<td>1.32</td>
<td>0.251</td>
<td>0.256</td>
</tr>
<tr>
<td>THW</td>
<td>9.778</td>
<td>0.61</td>
<td>0.435</td>
<td>57.677</td>
</tr>
<tr>
<td>TEC</td>
<td>16.389</td>
<td>0.34</td>
<td>0.561</td>
<td>292.126</td>
</tr>
<tr>
<td>AS</td>
<td>0.034</td>
<td>0.14</td>
<td>0.706</td>
<td>0.225</td>
</tr>
<tr>
<td>CE</td>
<td>0.384</td>
<td>1.09</td>
<td>0.297</td>
<td>0.441</td>
</tr>
</tbody>
</table>

*Note.* df = 1 in each analysis.

Other Employment Features

Research Questions 25-33 focused on other features of part-time employment among high school students. The examination of the data for these questions involved both inferential and descriptive analysis. This section includes two parts, an examination of characteristics of employed students and an examination of characteristics of non-employed students who participated in this survey.

Employed Students

Types of Jobs Held by Students

Previous research discovered that the increase in student part-time employment coincided with the increase in service-oriented jobs that are available for our nation’s young people (Charner & Fraser, 1988;
Steinberg & Greenberger, 1986). A majority of the students in this study who were working at the time of the survey were employed in some type of service-oriented job (n = 232, 59%). In descending order of frequency, other types of jobs included sales (n = 68, 17%), farming (n = 36, 9%), laborers (n = 18, 5%), and clerical work (n = 15, 4%).

When students were asked if they hoped to pursue their current type of work after they had completed high school or college, only 24 students (6%) responded that they did intend to pursue their current type of work. Most students (n = 308, 79%) did not view their current part-time jobs as career choices, but as temporary situations. In fact, some students commented on the questionnaire that they planned to further their education in order to avoid having to continue work in their current part-time jobs.

**Attitude Toward Work and School**

The hypothesis for Research Question 25 stated that there would be a difference between attitude toward work and attitude toward school. A correlated samples $t$ test discovered no difference between the two attitude measures ($t = -1.50, p > .05$), and thus, the null hypothesis was not rejected. When the employed students were split into their two work intensity groups, it was discovered that students who worked less than 20 hours per week had a more positive attitude toward school than toward work ($t = -3.38, p < .001$), while no significant difference between the two attitude measures was discovered for the students who worked 20 or more hours per week ($t = 1.67, p > .05$). Table 10 provides the means and standard deviations for attitude toward school and attitude toward work for students in each of the two work intensity groups.
Table 10

Attitude Toward Work and School by Work Intensity Group

<table>
<thead>
<tr>
<th>Work Intensity Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 20 hours per week</td>
<td>190</td>
<td>1.85</td>
<td>.48</td>
<td>2.03</td>
<td>.50</td>
<td>-3.38</td>
<td>.001</td>
</tr>
<tr>
<td>20 or more hours per week</td>
<td>187</td>
<td>2.04</td>
<td>.52</td>
<td>1.96</td>
<td>.59</td>
<td>1.67</td>
<td>.097</td>
</tr>
<tr>
<td>Total</td>
<td>377</td>
<td>1.95</td>
<td>.51</td>
<td>2.01</td>
<td>.68</td>
<td>-1.50</td>
<td>.135</td>
</tr>
</tbody>
</table>

Note. Mean scores for attitude measures were based on a Likert scale of 1 to 4 with 1 being more positive and 4 being more negative.

Students' Perceptions of the Impact of Their Employment

The survey for this study also included a series of Likert scale items in which students responded to statements about their perception of the impact of their part-time employment on specific elements of their education (Research Question 26). A frequency chart for these six survey items is displayed in Table 11. Frequencies and percentages are shown for each of the two work intensity groups (Groups 2 and 3). The non-employed students did not complete this portion of the questionnaire.

An examination of the data shows that, in general, a strong majority of the employed students perceive that their employment has not made it harder for them to keep their grades up ($n = 273, 70\%$), has not
Table 11
Students' Perceptions of the Impact of their Employment

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My job makes it harder for me to keep my grades up in school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td>9</td>
<td>5</td>
<td>34</td>
<td>17</td>
</tr>
<tr>
<td>Group 3</td>
<td>18</td>
<td>9</td>
<td>55</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>7</td>
<td>89</td>
<td>23</td>
</tr>
<tr>
<td>My working part time has reduced my time for homework and studying.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td>19</td>
<td>10</td>
<td>52</td>
<td>26</td>
</tr>
<tr>
<td>Group 3</td>
<td>36</td>
<td>19</td>
<td>76</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>14</td>
<td>128</td>
<td>33</td>
</tr>
<tr>
<td>My time for extracurricular activities has been reduced by the fact that I work part time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td>19</td>
<td>10</td>
<td>55</td>
<td>28</td>
</tr>
<tr>
<td>Group 3</td>
<td>34</td>
<td>18</td>
<td>76</td>
<td>39</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>14</td>
<td>130</td>
<td>34</td>
</tr>
<tr>
<td>My work experience has helped me to appreciate the need to continue my education.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td>60</td>
<td>30</td>
<td>102</td>
<td>51</td>
</tr>
<tr>
<td>Group 3</td>
<td>61</td>
<td>32</td>
<td>97</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>121</td>
<td>31</td>
<td>199</td>
<td>51</td>
</tr>
<tr>
<td>My part-time job has caused me to be less interested in school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td>4</td>
<td>2</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td>Group 3</td>
<td>10</td>
<td>5</td>
<td>33</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>4</td>
<td>52</td>
<td>13</td>
</tr>
<tr>
<td>The work I do at my job is more important to me than what I am doing at school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td>3</td>
<td>2</td>
<td>21</td>
<td>11</td>
</tr>
<tr>
<td>Group 3</td>
<td>13</td>
<td>7</td>
<td>29</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>4</td>
<td>50</td>
<td>13</td>
</tr>
</tbody>
</table>

Note. Percentages in each row reflect the percentage of responses for that row only. Percentages were rounded to the nearest whole number.
caused them to be less interested in school \( (n = 324, 84\%) \), and has not made them think that their job is more important to them than what they are doing at school \( (n = 322, 83\%) \). In addition, a majority of the employed students agreed with the notion that their employment has helped them to appreciate the need to continue their education beyond high school \( (n = 320, 82\%) \).

Smaller majorities are noted for the other two statements. Just over half of the employed students disagreed with the statements that their working part time reduced their time for studying or doing homework \( (n = 207, 53\%) \) and that their working reduced their time for extracurricular activities \( (n = 204, 52\%) \).

A comparison of the students' responses in Group 2 with those in Group 3 reveals a pattern of, at least, moderate differences. Students who worked 20 or more hours per week (Group 3) agreed more frequently than students who worked less than 20 hours per week (Group 2) on the following statements: that their job made it harder for them to keep up their grades \( (38\% \text{ for Group } 3 \text{ to } 22\% \text{ for Group } 2) \), that their working has reduced their time for homework \( (59\% \text{ to } 36\%) \) and for extracurricular activities \( (57\% \text{ to } 38\%) \), that their job has caused them to be less interested in school \( (22\% \text{ to } 12\%) \), and that their work is more important to them than what they are doing in school \( (22\% \text{ to } 13\%) \). The two work intensity groups were fairly even as to their agreement with the statement that their work experience has helped them to appreciate the need to continue their education beyond high school \( (82\% \text{ to } 81\%) \).

**Students' Spending and/or Saving Habits**

Employed students were asked to estimate the percentage of their earnings spent or saved for a series of purposes (Research Question 27).
A display of how students in this survey responded to this question is provided in Table 12.

Table 12

Employed Students' Spending and/or Saving Habits

<table>
<thead>
<tr>
<th>Purpose</th>
<th>A (0%)</th>
<th>B (1-33%)</th>
<th>C (34-66%)</th>
<th>D (67-100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disbursement Levels</td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
</tr>
<tr>
<td>Use for high school (books, supplies, fee, etc.)</td>
<td>251 65</td>
<td>133 34</td>
<td>1 0</td>
<td>4 1</td>
</tr>
<tr>
<td>Use to buy or do things (clothes, dates, movies, etc.)</td>
<td>8 2</td>
<td>184 47</td>
<td>146 38</td>
<td>51 13</td>
</tr>
<tr>
<td>Use for car expenses (loans, gas, insurance, etc.)</td>
<td>74 19</td>
<td>177 46</td>
<td>90 23</td>
<td>48 12</td>
</tr>
<tr>
<td>Give to your family to help with household expenses</td>
<td>312 80</td>
<td>75 19</td>
<td>2 1</td>
<td>0 0</td>
</tr>
<tr>
<td>Save for college or other education after high school</td>
<td>214 55</td>
<td>122 31</td>
<td>41 11</td>
<td>12 3</td>
</tr>
<tr>
<td>Save for other purposes besides college</td>
<td>147 38</td>
<td>192 49</td>
<td>41 11</td>
<td>9 2</td>
</tr>
</tbody>
</table>

Note. A = percentage of students who estimated 0% of their income for any given purpose. B = percentage of students who estimated between 1% and 33% of their income for any given purpose. C = percentage of students who estimated between 34% and 66% of their income for any given purpose. D = percentage of students who estimated more than 66% of their income for any given purpose. N = 389.
The information in this table shows that students spend a greater proportion of their income to "buy or do things" and to pay for "car expenses." A large majority of the students (n = 312, 80%) reported contributing none of their earnings toward the family's household expenses. No students reported giving their families over 66% of their earnings, and only two students (1%) reported giving their families at least one-third of their income. Furthermore, only 14% of the employed students (n = 53) reported saving one-third or more of their income for college, while 55% of the employed students (n = 214) claimed to be saving none of their earnings for college.

**Non-Employed Students**

In addition to an investigation of the employed students, this study also examined the non-employed students (n = 231, 37%). This part of the analysis focused on two aspects: (a) whether or not there were differences in the measures of academic involvement between non-employed students who were seeking a job and those who were not, and (b) an examination of the non-employed students' reasons for not having or wanting a job, or for quitting a job that they had had within the current school year.

**Job-Seekers and Non-Seekers**

Of the students who were not employed at the time of the survey, 127 students (57%) were seeking employment, while 97 students (43%) reported that they were not seeking a job. This distinction is referred to as "seek status," and was used as the independent variable in the statistical analysis.

Hypotheses 29-33 stated that there would be differences in GPA, time spent on homework, time spent in extracurricular activities,
attitude toward school, and classroom engagement between the non-employed students who were seeking a job and those who were not. Independent sample t tests were employed to test the null hypotheses (see Table 13). In all but one of the tests, that for GPA, no significant differences were discovered (p < .05). For Hypothesis 29, the significant t value allowed the researcher to reject the null hypothesis. The mean GPA for students who were not seeking a job (M = 3.16) was higher than the mean GPA for students who were seeking employment (M = 2.94). The null hypotheses that were tested for time spent on homework, time spent in extracurricular activities, attitude

Table 13
Independent Sample t Tests for Seek Status

<table>
<thead>
<tr>
<th>Source</th>
<th>Not seeking a job</th>
<th>Seeking a job</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>GPA</td>
<td>83</td>
<td>3.16</td>
</tr>
<tr>
<td>THW</td>
<td>97</td>
<td>6.92</td>
</tr>
<tr>
<td>TEC</td>
<td>83</td>
<td>7.23</td>
</tr>
<tr>
<td>AS</td>
<td>95</td>
<td>1.89</td>
</tr>
<tr>
<td>CE</td>
<td>93</td>
<td>2.35</td>
</tr>
</tbody>
</table>

Note. GPA was based on a 4.0 scale; THW and TEC were recorded as hours per week; AS and CE were based on a 1-4 Likert scale, with 1 being a more positive response.
* p < .05.
toward school, and classroom engagement, between the two categories of seek status (Hypotheses 30-33), were not rejected.

**Students’ Reasons for Not Wanting, Not Having, or for Quitting a Job**

Students who did not have a part-time job at the time of the survey were asked to give their reasons for not working, and those who had quit a job earlier in the school year were asked to give their reasons for quitting their jobs (Research Question 28). Among the non-employed students in the survey, 45 (20%) had been employed at some point during the course of the current school year, while 183 (80%) had not had any part-time employment during that same time period. A distribution of the most frequently cited student responses is provided in Tables 14 and 15.

Table 14

<table>
<thead>
<tr>
<th>Students’ Reasons for Not Having a Job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason</td>
</tr>
<tr>
<td>My parents won’t let me have a job</td>
</tr>
<tr>
<td>It interferes with extracurricular activities</td>
</tr>
<tr>
<td>I can’t find a job right now</td>
</tr>
<tr>
<td>It interferes with time for doing homework</td>
</tr>
<tr>
<td>I just don’t want a job</td>
</tr>
</tbody>
</table>

*Note:* Students were permitted more than one response. Percentage figures are rounded to the nearest whole number and reflect the percentage of non-employed students (having not worked during the school year) who checked that particular response. N = 183.
Table 15

Students' Reasons for Quitting a Job

<table>
<thead>
<tr>
<th>Reason</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>I did not like the job</td>
<td>20</td>
<td>44</td>
</tr>
<tr>
<td>It interfered with extracurricular activities</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td>It did not pay well enough</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>My parents did not want me to work</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>It interfered with time for doing homework</td>
<td>16</td>
<td>36</td>
</tr>
</tbody>
</table>

Note. Students were permitted more than one response. Percentage figures are rounded to the nearest whole number and reflect the percentage of non-employed students (having quit a job during the school year) who checked that particular response. N = 45.

Needing time for extracurricular activities (54%) and needing time for doing homework (43%) were the more frequently cited reasons for not having or wanting a part-time job during the school year. Parental disapproval was stated as a reason by 20% of the students.

Among the 45 students who had quit a job within the current school year, the most frequently cited response (44%) was their dislike of the job they had. The next two most popular reasons for quitting their jobs were needing time for homework (36%) and needing time for extracurricular activities (33%). Among these students, parental disapproval was cited in only 13% of the cases.
CHAPTER V
DISCUSSION AND CONCLUSIONS

The results of this study provide support to previous research that has shown that part-time employment among high school students does have an impact on certain measures of student achievement and involvement in school, but primarily when the number of hours worked exceeds 20 hours per week (Gottfredson, 1985; Greenberger & Steinberg, 1980; Hamilton, 1988). This chapter presents a discussion of the findings of this study, the researcher’s conclusions, and recommendations for further study.

Discussion

Work Intensity

The results of both the multivariate and univariate tests on the measures of academic involvement among the three levels of work intensity show that significant differences in these measures did not exist between students who were not employed and students who were employed for less than 20 hours per week. Differences in GPA, time spent on homework, time spent in extracurricular activities, attitude toward school, and classroom engagement were significant, however, when the hours worked was 20 or more hours per week.

The discriminant analysis found time spent on homework and time spent in extracurricular activities to be the strongest predictors of a student’s placement within the highest work intensity level. Since time is the common element in both of those measures, it is apparent that students who work 20 or more hours per week do not have as much time for...
doing homework or for being involved in school activities as students who are not employed or who work less than 20 hours per week.

At the time of the survey, more boys than girls were employed, and more boys than girls were working 20 or more hours per week. In this study, however, gender did not appear to be a factor in the analysis of work intensity and the measures of academic involvement. The differences noted in GPA, time spent on homework, attitude toward school, and classroom engagement between work intensity groups were similar for boys and for girls. The only interaction found between gender and work intensity was for time spent in extracurricular activities. Girls in the highest work intensity group were more involved in school activities than boys within that same work level, which was not the case for boys and girls who were not employed or who worked less than 20 hours per week. It appears that girls, at least those in this sample, who worked more than 20 hours per week, were more likely than their male counterparts to remain involved in extracurricular activities.

The results of the Chi square tests on student enrollment in math and science classes among the work intensity groups also showed little difference between the non-employed students and the students who worked less than 20 hours per week. For students who worked 20 or more hours per week, the percentage who were enrolled in a math or science course dropped when compared to the other two work intensity groups. This does not necessarily mean that working 20 or more hours per week caused these students to be less interested in math or science, but it does support the contention that increased work intensity is associated with less frequent enrollment in math and science courses.
On the basis of the analysis, a similar statement can be made in regard to students' plans to attend college. Though it is likely that students who do not plan to attend college may choose to increase their level of work intensity while still in high school, it is still worthy of note that little difference in plans to attend college was found between students who were not employed and those who were working less than 20 hours per week. A significant drop in the percentage of students planning to attend college occurred for those students working 20 or more hours per week. It is a possibility that the increased time involvement at a job, along with the increased size of the pay check, plays a role in the student's decision about whether or not to attend college.

This is not to suggest that every student in high school must attend college, or that not attending college ought to be viewed in a negative way. The concern here is whether the student whose initial plans for future education, or for pursuing a particular career or profession, might be altered by the immediate monetary rewards of a part-time job.

Work Situation

Students who work for their parents at a family farm or family business, and may or may not get paid for their work, were included as working students in this study. It was considered possible that students in this situation might have higher scores on the measures of academic involvement than students who worked at jobs in which their parents were not their employers. The results of the analysis showed that this was not the case.
This finding strengthens the contention that the number of hours worked per week has a greater impact than the work situation on the measures of academic involvement. Regardless of who the student works for, the time commitment to the work is a key factor. It is also apparent from some of the students' written comments that some employers have shown a concern for their student employees' success in school and for their involvement in school activities. A number of students made reference to the fact that their employers allowed them to be flexible with their work schedules, to work around school activities.

Work Time

As in the case of work situation, work time did not prove to be as essential a factor as work intensity. Students who worked only on the weekends, on the average, worked less hours per week than students who worked during the week or a combination of week days and weekends. Students who work only on weekends would appear to have more time during the week to do homework or to be involved in extracurricular activities, but the lack of significant differences in the analysis means that any real differences in the measures of academic involvement are more a reflection of the number of hours worked than the time of week the student worked.

It must still be recognized, however, that a student's involvement in after-school activities is going to be affected by having a part-time job during those hours. Some students reported working only on the weekends during the season of their particular activity, and then changing their work schedule when the season ended. That kind of flexibility, if available to students, would certainly encourage students to be involved in extracurricular activities and still benefit
from a part-time job. Employers ought to be encouraged to promote that type of flexible scheduling when it involves student employees.

Other Employment Features

Attitude Toward Work and School

When attitude toward work was compared with attitude toward school, no differences were discovered until the two work intensity groups were separated. Students who worked 20 or more hours per week displayed about the same attitude toward both their work and their school. Students who worked less than 20 hours per week displayed a more positive attitude toward school than toward work. The implication here is, that among students who do work, those who do not have as great a time commitment to their part-time jobs will be more likely to display a more positive attitude toward school than toward their employment.

Students' Perceptions of the Impact of Their Employment

This study confirms one of the conclusions of McNelly et al., (1990b), that most of the students themselves do not perceive any impact of their employment on their school work. This may be due in part to the fact that students are not always in a position to objectively evaluate such an impact. In addition, students may not want to acknowledge the impact of their employment on their school work if that acknowledgement might lead to losing the opportunity of having a job.

Although categorically confirming earlier research, an interesting aspect of this study when comparing the work intensity groups is that those students who worked 20 or more hours per week perceived a greater impact of their employment upon their work in school than did those students who worked less than 20 hours per week. It is probably not that these students are more perceptive. A more probable explanation
for this is that the students with a greater time commitment to their work perceived a greater impact because that is indeed the case.

When responding to the statement "my part-time job has caused me to be less interested in school," only 12% of those students who worked less than 20 hours per week agreed, compared to 22% of those students who worked 20 or more hours per week. In both categories, more students disagreed with the statement, but among those students who did agree with it, a greater percentage are found within the higher work intensity group.

In a related statement, that "the work I do at my job is more important to me than what I am doing at school," similar results occurred. Among the students who worked less than 20 hours per week, only 13% agreed with that statement, while 22% of the students who worked 20 or more hours per week agreed. Though most students from both categories disagreed with the statement, it is evident that a greater percentage of students from the higher work intensity group than from the lower intensity group perceive their jobs to be more important to them than their schooling.

Both work intensity groups agreed with the statement that their work experience helped them to appreciate the need to continue their education beyond high school (over 80% in each group). This is certainly a positive aspect of the students' work experience. Regardless of the level of work intensity, the majority of working students in this study perceived the value of continuing their education beyond high school, not just in spite of their work experience, but at least in part, because of their work experience.
Students' Spending and/or Saving Habits

This study confirms the conclusions of previous research (Charner & Fraser, 1988; Goldstein, 1991; McNelly et al., 1990b), that students are spending most of their earnings on immediate needs or wants. Spending money for “car expenses” and “to buy or do things” received higher percentages of the students’ monetary expenditures than any of the other choices. Saving money for college or for other purposes received much lower percentages among most students, and using their earnings to help support the family was even less prevalent.

In this study, students were not asked to cite their reasons for having or wanting a part-time job, but the results of this portion of the study would seem to suggest that many students seek part-time employment primarily to have spending money. Though a student’s employment, or at least the subsequent income from that employment, may indirectly help that individual’s family, this research shows that very few students in this sample were working to help pay for household expenses. Neither is it apparent in this study that students are seeking employment in order to have money for their college education. Eighty-six percent of the employed students reported saving none or less than one-third of their income for college or other education after high school.

Non-Employed Students

Job-Seekers and Non-Seekers

A comparison of non-employed students who were seeking a job with those who were not seeking employment was made in order to determine if there were any a priori differences in the measures of academic involvement between these two groups of students. Only in GPA was there
a significant difference discovered. No differences were noted between these two groups of students in the amount of time spent on homework, in the amount of time spent in extracurricular activities, in attitude toward school, nor in the measure of classroom engagement. With the exception of GPA, these findings suggest that a priori differences do not exist between students simply on the basis of whether or not they are seeking a job. Therefore, differences that were discovered in the measures of academic involvement, as previously reported, are the result of the actual time commitment to the work, and are not due to any preexisting differences within the students on the basis of their desire to have or not to have a part-time job.

Students’ Reasons for Not Wanting, Not Having, or for Quitting a Job

Since the results of this study showed that “interference with extracurricular activities” and “interference with time for doing homework” were the students’ most frequently cited reasons for not having a job, and two of the three most frequently cited reasons for quitting a job, it seems apparent that the time element involved in having part-time employment is an important factor for many students. For many of the students who were not employed, commitment to school work and to their involvement in school activities precluded their involvement in a part-time job, or led to their giving up a job that they already had. As previously stated, however, it is not necessarily the job itself, but too great a time commitment to the job, that is associated with less time for homework or extracurricular activities.

Conclusions

Part-time employment among high school students should not be looked upon as a great evil within our society. These types of jobs can
serve many important purposes, for both the employers and the student employees. Students can learn responsibility, specific job skills, appreciation for the work of others, and earn needed spending money as well. This study showed that the work experience can also help students appreciate the value of continuing their education. In some schools, job experiences have even become a part of a student's high school education.

This study, however, showed that the unrestricted amount of time that a high school student is allowed to work at a part-time job might have a negative impact on their achievement and involvement in school. Students who are working in excess of 20 hours per week while enrolled as a full-time student are less likely to be as academically successful as those students who are not employed or who are working less than 20 hours per week. Working 20 or more hours per week is associated with lower GPA, less time spent on homework, less time involved in extracurricular activities, a less positive attitude toward school, and decreased ability to be engaged in classroom activities. It is also associated with less frequent enrollment in math and science courses and less frequent plans to attend college.

The results of this research add further support to previous studies that have found a negative impact on educational variables by employment that exceeded 20 hours per week. This study found that testing the variables work situation (whether at a job or at the family farm or business) and work time (whether week days or weekends only) did not make any significant contribution to the research, except to show that in each of the analyses the number of hours worked was a more significant variable than the situation or the time of week.
Since no significant differences were discovered in the measures of academic involvement between non-employed students and those students who worked less than 20 hours per week, employment among high school students of a limited nature ought not to be discouraged. In these situations, students may reap the benefits of part-time employment without the drawbacks that may result from working too many hours per week.

Those who employ high school students should be concerned about the number of hours they require of their student employees. It is also beneficial to the student if the work schedule could remain somewhat flexible to allow for student involvement in school activities. In addition, employers should also be considerate of students' need for time to do homework, and not require high school students to work late into the night when the following day is a school day. Student success in school ought to be a concern of the student's employer.

School personnel ought also to become aware of and alert to student problems that may be associated with the student's level of work intensity. Teachers should not lower their expectations of those students who have jobs, as previous research has shown (Goldstein, 1991; McNeil, 1984), but should make attempts to work with students in a cooperative effort to help the student succeed in school. Communication between the schools and the businesses can help to prevent potential problems that might result from student part-time employment. Joint efforts by the high schools and the businesses within the community to plan and work together for the benefit of the students would be a worthy pursuit.
Recommendations for Further Study

Given the association between the high level of work intensity and the negative findings in the measures of academic involvement, further research that explores the reasons for such association is desirable. Are students seeking more hours of employment because they already have lower levels of achievement or less involvement in school activities? Are lower scores on the measures of attitude toward school and classroom engagement the result of greater work intensity or a cause of it?

In addition, since a study of this nature is not able to show cause and effect relations, studies of an experimental nature might provide data that could answer questions of a causal comparative nature. Case studies that follow specific students through their high school years and beyond, including both empirical and qualitative data, might be able to shed more light upon the subject of part-time employment and its effect on a student’s performance and involvement in school. In addition, such studies could answer questions about the relationship of the student’s part-time employment to the formation and development of student goals and to the student’s future education and employment. Since a high school student’s plans to attend or not to attend college may depend on prior academic achievement, a longitudinal study could account for those long-term factors.

Interviews with students who are employed at different types of jobs and at different levels of work intensity might also bring new insights to the subject. In an interview situation, some students might provide a greater depth of information, more of their personal feelings or motivations, than they might be willing or able to provide on a questionnaire.
It would also be desirable to know if there is any relationship between the type of job that a student has and the student's academic performance. Do some types of work promote student academic success more than others? Are certain types of work more closely associated with the school's curriculum, and thereby provide reinforcement of what is learned in school? Stated another way, could some of the desired curricular outcomes of a school be accomplished through a program that brings together the business and education leaders of a community?

Since the findings of this study showed that most students do not intend to continue in their current type of employment after they complete their education, it would be beneficial to know to what extent working part-time actually assists high school students in seeking future employment. Furthermore, are working students, as a result of their job experience, better able to clarify future goals and objectives than non-working students?

This study discovered that students who work generally have an appreciation for continuing their education beyond high school. It might also be interesting to discover if working students still have an appreciation for their high school education, or if they are finding little relevance in their high school education as a result of working. Furthermore, would this in turn be associated with a desire to work more hours?

Finally, since this study was limited to the students in the state of Iowa, other researchers may wish to replicate this study or a similar study in other states. Other researchers may also wish to include all high school students in their studies, as the current study focused only on 11th grade students.
REFERENCES


Appendix A

Questionnaire
Questionnaire

SECTION A

1. What courses are you taking this semester?
   (Check all that apply and list any others not already named.)
   { } HISTORY    { } CHEMISTRY    { } ALGEBRA II
   { } ENGLISH    { } PHYSICS      { } FOREIGN LANGUAGE
   OTHERS:____________________________________________________

2. Outside of school time, how many hours per week on the average do you
   spend doing homework assignments and studying? ________ hrs

3. What is your current grade point average? _______
   a. Is this a 4-point scale? { } YES
      { } NO - If NO, what scale is it? ______
   b. Are you currently in an Advanced Placement program? { } YES
      { } NO

4. In what extracurricular activities at school do you participate?
   (Check all that apply.)
   { } SPORTS  { } MUSIC  { } YEARBOOK/NEWSPAPER
   { } CLUBS   { } DRAMA  { } OTHER_____________________
   { } SPEECH  (please specify)

5. Outside of school time, how many hours per week on the average do you
   spend involved in extracurricular activities? ________ hrs

6. How many hours outside of school time were you involved in
   extracurricular activities last week? ________ hrs

7. Which of the following best describes your current plan for after
   graduation from high school? (Check one)
   { } FULL-TIME EMPLOYMENT (not just summer)
   { } 2-YEAR TECHNICAL OR TRADE SCHOOL
   { } 2-YEAR COMMUNITY OR JUNIOR COLLEGE
   { } 4-YEAR COLLEGE OR UNIVERSITY
   { } MILITARY
   { } OTHER:____________________________________________ (please specify)
Please answer Questions 8-17 by circling the appropriate number to the right.
SA=Strongly Agree; A=Agree; D=Disagree; SD=Strongly Disagree

<table>
<thead>
<tr>
<th>Question</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. My high school education is a positive aspect of my life right now.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. My high school education will be a benefit to me in the future.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. It is often difficult for me to pay attention in class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. In my classes at school, I try to learn as much as possible.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. I enjoy most of the time I spend at school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. School work is beneficial to my personal growth and understanding.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14. It is often difficult for me to concentrate in class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15. Involvement in school activities is beneficial to my personal growth and development.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16. I find myself losing interest in school and school activities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17. I find myself wanting to sleep or let my mind wander while I am in class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

SECTION B

18. Are you currently working in a job for pay or in work at your family's farm or business? (Check any that apply)

{ } YES - JOB FOR PAY
{ } YES - FAMILY FARM If YES, skip to #19 on the next page.
{ } YES - FAMILY BUSINESS
{ } NO -- (If NO, please answer the following sub-questions.)
a. Are you currently **seeking** work?  { } NO  
{ } YES

b. Have you held a job during this school year?
   { } NO - If NO, go to letter c below.
   { } YES- If YES, go to letter d on the next page.

c. What are your reasons for not having or not wanting a part-time job at this time? (Check all that apply.)
   { } PARENTS WON'T LET ME
   { } INTERFERES WITH EXTRACURRICULAR ACTIVITIES
   { } I CAN'T FIND A JOB RIGHT NOW
   { } INTERFERES WITH TIME FOR HOMEWORK
   { } I JUST DON'T WANT A JOB
   { } OTHER (please specify)

   __________________________________________________________

d. Why did you leave the part-time job you had?
   (Check all that apply.)
   { } I DIDN'T LIKE THE JOB
   { } THE JOB INTERFERED WITH EXTRACURRICULAR ACTIVITIES
   { } THE JOB DIDN'T PAY WELL ENOUGH
   { } MY PARENTS DIDN'T WANT ME TO WORK
   { } IT INTERFERED WITH TIME FOR DOING HOMEWORK
   { } OTHER (please specify)

   __________________________________________________________

**NOTE:**
If you are not currently employed, please skip over to Section C at the end of the questionnaire, and complete that portion of the survey.

---

**Students who currently have a part-time job should continue here:**

19. On the average, how many **hours per week** do you work?

   a. JOB FOR PAY: ______ hrs
   b. FAMILY FARM: ______ hrs
   c. FAMILY BUSINESS:_______ hrs

TOTAL:_______ hrs

---

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20. Which of the following statements best describes your work schedule for last week? (Check one)

( ) I WORKED MOSTLY AFTER SCHOOL HOURS DURING THE WEEK.
( ) I WORKED JUST ON THE WEEKEND.
( ) I WORKED AFTER SCHOOL HOURS AND ON THE WEEKEND.

21. What type of work do you do?

22. Who do you work for?

(Name of company or business)

23. Did the school assist you in getting your current job?  

( ) NO  
( ) YES

24. Is your current job the type of work you hope to pursue after you’ve completed high school or college? (Check one)

( ) NO  
( ) YES  
( ) NOT SURE

25. Are you able to do homework while working at your job?  

( ) NO  
( ) YES

Please answer Questions 26-35 by circling the appropriate number to the right.

SA=Strongly Agree; A=Agree; D=Disagree; SD=Strongly Disagree

<table>
<thead>
<tr>
<th></th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>26. My part-time job is a positive aspect of my life right now.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>27. My part-time job will be a benefit to me in the future.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>28. I enjoy most of the time I spend at my part-time job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>29. My part-time work is beneficial to my personal growth and development.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>30. My job makes it harder for me to keep my grades up in school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
31. My work experience has helped me to appreciate the need to continue my education after high school.  
   SA  A  D  SD  
   1   2  3  4  

32. My working part time has reduced my time for homework and studying.  
   SA  A  D  SD  
   1   2  3  4  

33. My time for extracurricular activities has been reduced by the fact that I work part time.  
   SA  A  D  SD  
   1   2  3  4  

34. My part-time job has caused me to be less interested in school.  
   SA  A  D  SD  
   1   2  3  4  

35. The work I do at my job is more important to me than what I am doing at school.  
   SA  A  D  SD  
   1   2  3  4  

36. How do you usually spend the money that you earn?  
   (Please list an approximate percentage figure for each line.)  

   A. Use for high school (books, supplies, fees)............ _____%  
   B. Use to buy or do things (clothes, dates, movies, etc.) ____%  
   C. Use for car expenses (loans, gas, insurance, etc.)..... ____%  
   D. Give to your family to help with household expenses... ____%  
   E. Save for college or other education after high school..____%  
   F. Save for other purposes.................................____%  
   G. Other:______________________________________________....____%  
      (please specify)  

   Total: 100 %
37. Has your part-time employment affected your grades and the time you have to do your homework? If yes, how? If not, why not?

38. Has your part-time employment affected your time for involvement in extracurricular activities? If yes, how? If not, why not?

39. Has your part-time employment affected your attitude toward school? If yes, how? If not, why not?

SECTION C

40. Age____

41. Gender: { } FEMALE
   { } MALE

42. Ethnic Self-description:{ } WHITE { } HISPANIC { } NATIVE AMERICAN
   { } BLACK { } ASIAN { } OTHER_______
   (please specify)

43. Of the adults living in your home, what are their current occupations? (Please be as specific as possible.)

FATHER or STEPFATHER:________________________________________

MOTHER or STEPMOTHER:________________________________________

OTHER GUARDIAN:_____________________________________________

OTHER GUARDIAN:_____________________________________________

You have reached the end of the questionnaire. Please fold it, place it inside of the letter-sized envelope, seal it, and hand it in to your instructor.

Thank you for being a part of this study!
Appendix B

Cover Letter to the Questionnaire
COVER LETTER FOR THE QUESTIONNAIRE

Dear Student,

The purpose of this questionnaire is to gather information about
the relationships among a variety of school aspects concerning working
and non-working students.

The information you provide will be used in a research study.
Your anonymity is maintained. No one but the researcher will see your
completed questionnaire. Your responses will not be known to anyone but
the researcher, and all questionnaires will be destroyed after the
responses have been collected.

Your participation in this research is much appreciated, but I
want you to know that it is voluntary. If you choose to participate,
take just a few minutes now to fill out the questionnaire. When you are
finished with the questionnaire, please fold it, place it inside the
letter-sized envelope that is provided, and return the sealed envelope
to your instructor.

All student envelopes will be placed in a larger envelope by the
instructor and sent to my address. No school officials will see your
responses.

Thank you for your time and effort in making this research
possible!

Sincerely,

Larry G. Eggink

Doctoral Student
College of Education
University of Northern Iowa
Appendix C

Permission Letter
PERMISSION LETTER

Dear __________________________:

I am requesting approval to conduct research in your high school. As part of the requirements for the Doctor of Education Degree at the University of Northern Iowa, and under the direction of Dr. Thomas Switzer, Dean of the College of Education, I am studying the relationships between the part-time employment of high school students and such educational variables as grade point average, time spent on homework, involvement in extracurricular activities, and attitude toward school.

Your high school is one of thirty in the state of Iowa selected to participate in this study. The emphasis of this study is to identify the working student and the potential impact the number of hours worked at a part-time job may have on his or her education. The methods of the study and the instruments to be used do not evaluate the school or the staff in any way. I am not requesting access to any student files.

With your permission, I would like to have a questionnaire administered to one section of junior English students, a class that I would select at random. I realize that this would involve instructional time and the assistance of a staff member. The questionnaire has been designed so as to take most students no more than 15 minutes to complete. Instruction sheets would also be included for the sake of the staff member who administers the questionnaire. Students will be informed that their participation is voluntary, and that all responses are anonymous. No questions, however, should cause the student any anxiety or discomfort. I will assume all costs for mailers and postage.

Any publications as a result of this study will generalize findings. The identities of the individuals are anonymous and identity of the school will be kept confidential.

At the conclusion of this study, the results will be made available to you and your staff at your request. I would be prepared to share any of this information with you.

Enclosed is a copy of the questionnaire, that you might have a better understanding of the nature of the study. I will call within the next few days to answer any questions you might have concerning this request, the purpose of the study, or its procedures.

Sincerely,

Larry G. Eggink
401 Jefferson, Pella, IA 50219
Doctoral Candidate
University of Northern Iowa

Home (515) 628-8603
School (515) 628-4440
Appendix D

Instruction Sheet to the Questionnaire
INSTRUCTION GUIDE TO THE QUESTIONNAIRE

Materials Provided:
1. A cover letter, questionnaire, and envelope for each student.
2. Large, addressed envelope (mailer) for the collection of student envelopes when questionnaires are completed.

Time Required: Probably 15-20 minutes for most students; no time limit is imposed.

Student Needs: Pen or pencil.

Procedure:
1. Hand out the cover letter, questionnaire, and envelope to each student.
2. Instruct students to read the cover letter. (Since the letter informs them that their participation is voluntary, some may return them at this time. Hopefully, most of them will choose to participate.)
3. When they have finished reading the cover letter, instruct them to fill out the questionnaire as completely and as accurately as possible.
4. As the students complete the questionnaire, collect the sealed envelopes containing the questionnaire. (The cover letter instructed them to place the questionnaire in the envelope, preserving confidentiality, before handing them in.)
5. Place all student envelopes in the large, self-addressed mailer, seal it, and mail it. (All expenses incurred by the school will be reimbursed by the researcher.)

Note: Please return in the mailer any extra envelopes or questionnaires of students who were absent or are no longer in the class.

Thank you very much for helping me out with this important part of my research. Your attention to all of these details is certainly appreciated. I hope the sacrifice in instructional time might be outweighed by the benefit to educational research in the area of student employment.

Larry G. Eggink
401 Jefferson
Pella, IA 50219

Home (515) 628-8603
School (515) 628-4440

Doctoral Student
College of Education
University of Northern Iowa
Appendix E

*Students' Responses to Open-Ended Questions*
STUDENTS' RESPONSES TO OPEN-ENDED QUESTIONS

Listed here are the responses to three open-ended questions by the students in this sample. They are presented in no specific order. The purpose for including these responses is to provide a measure of additional perspective and to show the consistency in these responses with the findings of the study.

Has your part-time employment affected your grades and the time you have to do your homework? If yes, how? If not, why not?

Yes:

1. "I'm too tired to study."
2. "I get tired at school more often."
3. "My homework doesn't get finished."
4. "I have less time to study for tests."
5. "I don't have time to get my homework done."
6. "My grades have dropped from A's to B's."
7. "My GPA has dropped from 3.5 to 3.1."
8. "For the better, because I've learned to be more organized."
9. "My grades went up, but I have less time for homework."

No:

1. "My homework gets done after work; I stay up later."
2. "I get it done, but I'm always cramming for time."
3. "I get all my work done in school (study halls)."
4. "My classes are easy; very little homework."
5. "I don't work that many hours."
6. "Most of my work is on the weekends."
7. "I do more homework at my job than I do at home."

8. "My employer is concerned that my GPA stay up."

9. "I don’t do that much homework anyway."

Has your part-time employment affected your time for involvement in extracurricular activities? If yes, how? If not, why not?

Yes:

1. "Making money is more important to me than being in sports."

2. "I’d like to be in track, but I need the money."

3. "My job keeps me from being involved in extracurricular activities."

4. "I had to give up things."

5. "It takes away time from my activity; I really need more time for my music."

6. "Sometimes I have to miss practice, or leave practice early."

7. "I could do better in my activity if I didn’t work."

8. "I miss the time I used to spend after school lifting weights with my friends."

No:

1. "My boss is flexible about scheduling my work; I can work around my school activities."

2. "Dad’s my boss and he lets me go."

3. "I don’t work during my sports season."

4. "I’m not involved in extracurricular activities."
5. "I’m not interested in school activities."

6. "I only work on weekends, so it doesn’t interfere with my activity."

7. "My work is more fun than those activities."

8. "I just make sure I have enough time for my school activities."

Has your part-time employment affected your attitude toward school? If yes, how? If not, why not?

Yes:

1. "I see how little what I learn relates to the real world."

2. "I want to quit school because my classes don’t seem worthwhile any more."

3. "I’m sick of the rules and the routine; school is dumb and useless."

4. "I know that not everything is learned in school."

5. "I’d rather be at school; it’s better than work."

6. "School is a nice break from my job."

7. "I’m run down most of the time and lack motivation."

8. "I’m grouchier."

9. "Since working, school has become tremendously stressful."

10. "I’m more positive; it has made me a happier person."

11. "I don’t feel like getting up to go to school."

12. "It has taught me responsibility."
13. "I’m more positive now, and people at work have helped me with career decisions."

14. "It has made me want to get a better education, because I don’t want a job like this one forever."

15. "I realize the importance of studying."

16. "I don’t care as much about school; I don’t want to try any more."

17. "I think I have a more positive outlook on learning."

18. "School gets in the way."

No:

1. "School and work are two separate things; not related."

2. "I didn’t enjoy school anyway."

3. "I didn’t care much about school even before I had a job."

4. "I enjoy them both."

5. "Why would it?"

6. "I still try to do my best in school."

7. "My attitude is still positive because school is important to me."

8. "At school I am with my friends."

9. "I like school."