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THE INFLUENCE OF PART-TIME EMPLOYMENT AND STUDY HABITS
AND ATTITUDES ON ACADEMIC PERFORMANCE
OF HIGH SCHOOL JUNIORS

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TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	i
LIST OF TABLES	v
 Chapter	
I. INTRODUCTION	1
Statement of the Problem	5
Significance of the Study	6
Scope of the Study	11
Limitations	12
Hypotheses	14
Definitions	15
Organization of the Study	16
II. REVIEW OF RELATED LITERATURE	17
Academic Performance	17
Study Habits and Attitudes	20
Studies Concerning Part-time Employment	21
Greenberger and Steinberg Study	22
NCES Study	26
Berryman and Schneider Study	28
Hammond Studies	31
Heffez Study	36
Cook Study	38
Gottfredson Study	40
Ohio State Study	41
Summary	42
III. METHODS AND PROCEDURES	46
Selection of Subjects	46
The Research Instruments	51
Development of Questionnaire on Employment	52
Selection of SSHA Question- aire	53

Chapter	Page
Validity	56
Reliability	56
Pilot Study	58
Distribution of the Question- naires	58
Rationale for the Study	59
Treatment of the Data	62
Summary	66
IV. FINDINGS	69
Description of the Respondents . .	69
Results of Testing the Hypoth- eses	70
Data from Employment Question- naire	97
Summary	105
V. SUMMARY, CONCLUSIONS, AND RECOMMEN- DATIONS	107
Summary	107
Statement of the Problem . . .	109
Significance of the Study . . .	109
Related Studies	110
Research Procedures	111
Findings	112
Conclusions	114
Implications	117
Recommendations	120
REFERENCES	121
APPENDIX A	127
APPENDIX B	131

LIST OF TABLES

Table		Page
1	Subscales of the Survey of Study Habits and Attitudes	57
2	Frequencies and Percentages of Students by Sex and Employment Status	71
3	Age of Students in Survey Sample	71
4	Percentages of Students and Their Ranks on Stanford Achievement Tests	72
5	Comparison of Employed and Non-Employed Juniors Based on Academic Performance	73
6	Comparison of Employed and Non-Employed Juniors Based on SSHA Scores	73
7	Comparison of Employed and Non-Employed Juniors Based on Extracurricular Participation	74
8	Comparison of Employed and Non-Employed Juniors Based on Educational Plans	74
9	Comparison of Employed and Non-Employed Females Based on Educational Plans	75
10	Comparison of Employed and Non-Employed Males Based on Educational Plans	76
11	The Relationship Between Number of Hours Working and Academic Performance	77

Table		Page
12	The Relationship Between Academic Performance of High School Juniors and Each of the Following: SSHA Scores, Number of Hours Worked Per Week, Stanford Achievement Test Level, Extracurricular Participation Per Week, and Total Semesters Working	78
13	Intercorrelations Among Variables Used in Multiple Regression Analysis	79
14	Percentage of Students Living in Single-Parent Households	131
15	Percentage of Students with Both Parents Employed	131
16	Educational Level of Students' Fathers	132
17	Educational Level of Students' Mothers	133
18	Reasons for Not Working	134
19	Total Number of Semesters Employed	135
20	Students Who Own or Have Exclusive Use of Automobile	136
21	Participation in Car Expenses	137
22	Percentage of Students with Checking and Savings Accounts and Credit Cards	138
23	Participation in Extracurricular Activities	139
24	Frequency of Vocational Choices	141
25	Plans for Further Education	143
26	Employed and Non-Employed Juniors	143
27	Average Hours Employed Per Week	144
28	Frequency of Type of Job	145
29	Expectations for Continuing at Present Job	146

Table		Page
30	Frequency of Employment by Relative	147
31	Frequency of Payment If Employed by Relative	147
32	Advantages Gained from Part-time Employment	148
33	Impact of Working on School Life	150
34	Frequency of Need for Stimulants	151
35	Students' Feelings Toward Part- time Job	152

THE INFLUENCE OF PART-TIME EMPLOYMENT AND STUDY HABITS
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CHAPTER I

INTRODUCTION

The National Commission on Excellence in Education
(April, 1983) reported that

. . . while we can take justifiable pride in what our schools and colleges have successfully accomplished and contributed to the United States and the well-being of its people, the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and as a people. What was unimaginable a generation ago has begun to occur--others are matching and surpassing our educational attainments. (National Commission on Excellence in Education Report, 1983)

T. H. Bell, Secretary of Education in the U.S. Department of Education, created the National Commission on Excellence in Education on August 26, 1981, and directed it to present a report on the quality of education in America by April of 1983. The Commission, chaired by David Pierpont Gardner, uncovered many

startling facts and figures concerning American education.

The American public, according to the report, is somewhat disenchanted with the proliferation of undemanding and superfluous high school offerings. More than 75 percent of those Americans questioned during the preparation of the report believed that every student planning to go to college should take four years of mathematics, English, history/U.S. Government, and science, with more than 50 percent adding two years each of a foreign language and economics or business. Many of those surveyed even supported requiring a much stricter curriculum than is now required of those students who do not plan to go to college.

The report further states "These standards far exceed the strictest high school requirements of any State today, and they all but exceed the admission standards of all but a handful of our most selective colleges and universities." (p. 17)

The exhaustive survey by the U.S. Department of Education, completed toward the end of 1983, revealed many additional inadequacies in the American educational system. Education Secretary Bell said, "As a nation, we are embarking on perhaps the greatest and

most broad-based effort at educational reform in American history." (Cromley, 1984)

Among the recommendations in the 1983 report, public schools were asked to toughen high school graduation requirements, especially in English, mathematics, science, social studies, and foreign language. Bell also challenged schools to surpass the ACT/SAT scores attained by the high school class of 1965, when a national decline in college-entrance test scores began. Potential college students generally take either the American College Test (ACT) or the Scholastic Aptitude Test (SAT) before admittance to colleges or universities.

Doubtless, many of the forces that are changing society today have an influence on the status and direction of public education, especially in secondary schools. Today, proportionately more American teenagers are working while still in school than at any other time in the past quarter century. Although working does help young people to acquire practical knowledge, learn to manage money, organize and manage time schedules, and develop the self-confidence and pride that comes from a sense of accomplishment,

working may contribute to scholastic tradeoffs.
(McGinley, 1979)

The working teenager, according to McGinley, gets money and a feeling of responsibility, but often does not have enough time or energy for school work or activities. Working seniors, rather than selecting a tough schedule that will keep them in school a full day, often choose easier courses that ensure a minimum of homework and earlier dismissal. "This," McGinley insists, "can leave them inadequately prepared for the tougher schedule of college courses if they choose to go that route." (p. 17)

Part-time employment among teenagers has been increasing rapidly, and in many communities half or more of the high school seniors may be employed part-time during the school year. This increase in teenage employment has caused many educators, as well as parents, to ask: Does teenage part-time employment adversely affect academic performance?

If, as the Commission reports, American students are becoming less well prepared for college and the years beyond, should teenagers be permitted to use valuable high school years working at the sometimes "menial" jobs instead of pursuing a more rigorous

curriculum?

Does working affect, in addition to academic performance, participation in extracurricular activities? Is valuable time squandered by high school students working at jobs that will ensure their having enough money for cars, records, extra clothes, and cosmetics? Does the increased amount of money available to the young people affect their long-term plans to attend college?

Statement of the Problem

The major purpose of this study was to examine the influence of part-time student employment among high school juniors on academic performance. Academic performance was based on students' grade point averages gathered from their permanent record files.

In addition, students' study habits and attitudes were examined to determine the extent to which they affect academic performance. Students' study habits and attitudes were determined by the students' combined scores on study habits and attitudes as measured by Brown and Holtzman's Survey of Study Habits and Attitudes published by The Psychological Corporation.

Significance of the Study

A number of startling facts were revealed in the report prepared by the National Commission on Excellence in Education in 1983. For example:

International comparisons of student achievement completed a decade ago reveal that on 19 academic tests American students were never first or second and, in comparison with other industrialized nations, were last seven times.

Some 23 million American adults are functionally illiterate by the simplest tests of everyday reading, writing, and comprehension.

About 13 percent of all 17-year-olds in the United States can be considered functionally illiterate. Functional illiteracy among minority youth may run as high as 40 percent.

Average achievement of high school students on most standardized tests is now lower than 26 years ago when Sputnik was launched.

Over half the population of gifted students do not match their tested ability with comparable achievement in school.

The College Board's Scholastic Aptitude Tests (SAT) demonstrate a virtually unbroken decline from 1963 to 1980. Average verbal scores fell over 50 points and average mathematics scores dropped nearly 40 points.

College Board achievement tests also reveal consistent declines in recent years in such subjects as physics and English.

Both the number and proportion of students demonstrating superior achievement on the SATs (i.e., those with scores of 650 or higher) have also dramatically declined.

Many 17-year-olds do not possess the "higher order" intellectual skills we should expect of them. Nearly 40 percent cannot draw inferences from written material; only one-fifth can write a persuasive essay; and only one-third can solve a mathematics problem requiring several steps.

There was a steady decline in science achievement scores of U.S. 17-year-olds as measured by national assessments of science in 1969, 1973, and 1977.

Between 1975 and 1980, remedial mathematics courses in public 4-year colleges increased by 72 percent and now constitute one-quarter of all mathematics courses taught in those institutions.

Average tested achievement of students graduating from college is also lower.

Business and military leaders complain that they are required to spend millions of dollars on costly remedial education and training programs in such basic skills as reading, writing, spelling, and computation. The Department of the Navy, for example, reported to the Commission that one-quarter of its recent recruits cannot read at the ninth grade level, the minimum needed simply to understand written safety instructions. Without remedial work they cannot even begin, much less complete, the sophisticated training essential in much of the modern military. (Commission Report, pp. 8-9)

In a time when more and more demands are being placed on the youth of today, parents, teachers, and employers are becoming increasingly aware of the importance of the high school years as a time of intensive preparation for the future. Adolescents who take part-

time jobs while in high school are relinquishing valuable hours--hours which could be devoted toward strengthening their academic preparation for careers that have been rapidly changing due to an explosion of technology.

Since 1940, the proportion of 14- to 16-year-old males who work while attending school has risen by a factor of 5, according to Greenberger and Steinberg (1980). They also report that for females of this age the population of workers has risen by a factor of 11. Current estimates indicate that over half of all high school juniors and seniors and about 30 percent of all 9th and 10th graders are employed at any one time during the school year. (Greenberger and Steinberg, 1980).

Not only are more young people working today, but they are working longer hours. Cole (1980) reports that as early as 1970, 56 percent of the 16-year-old male workers who were still attending school worked more than 14 hours per week; of the 16-year-old females, 46 percent worked more than 15 hours per week.

Berryman and Schneider (1982) surveyed urban and rural secondary students in Georgia and found that young people's reasons for working are extremely

varied. Some work to provide spending money for luxury items, better clothes, car expenses, and college tuition, while others work only because it's something to do or they want to get away from home.

In traditional settings, young people worked to help sustain the family. Today, this is less likely to be true. Some researchers believe working long hours has had a negative effect on teenagers' general attitudes and on social and intellectual achievement, but Berryman and Schneider (1982) feel working may also increase the chances of delinquency. They argue, too, that there are many positive benefits derived from working such as helping develop young people's ability to budget their time wisely, to learn new skills, and to attain good work habits and attitudes.

Johnson (1980) describes the jobs that teens get as "secondary jobs"--jobs that pay low wages, that require few skills, and that provide few incentives for keeping workers on the job. As a result, he feels that high school students tend to move from one job to another too rapidly to learn any but the most minimal skills.

In the last 15 years, the growth in the spending

power of teens has been astronomical. In 1965, teens spent \$4.4 billion on apparel and footwear; in 1979, they spent \$12.9 billion--nearly a threefold increase (Johnson, 1980). The increase in spending power often means that teenagers get used to immediate gratification by being able to buy cosmetics, records, stereos, cars, and other consumer goods. They also spend more money on cigarettes, alcohol, and other drugs. Linnus Pecaut, a psychologist in the Chicago area who specializes in counseling teenagers, says

The problem is that work distracts too many teens from their studies, and the jobs they hold don't really develop responsibility. This is because most kids are involved in jobs that they don't really care about. They're just putting in their time so they can make money. . . . Good students, on the other hand, keep studying because they are able to wait for the future payoff--excellent grades and a more rewarding job. (Johnson, 1980, p. 52)

Although some recent studies have been found on teenagers' reasons for working or not working and the effects of working on self-esteem and academic achievement, no study was found on the influence of part-time employment and study habits and attitudes on academic performance of high school students. There is not much evidence that working per se has negative effects on

physical or psychological well-being. There does seem to be substantial evidence that excessive working contributes to increased use of cigarettes, alcohol, and marijuana.

Of course, it is entirely possible that students who possess an abundance of basic skills, superior study habits, and positive attitudes toward teachers and education will excel despite working 20 or more hours per week. Therefore, an investigation delving into study habits and attitudes and employment status of teenagers should provide valuable information for those parents, teachers, counselors, and school administration who are concerned that working leads to a decline in academic performance, especially at a time when young people are being challenged to prepare for demanding futures in an ever-changing world.

Scope of the Study

Demographic data and information concerning teenage part-time work were collected by the use of an employment questionnaire administered to selected members of the junior class of Moore High School, Moore, Oklahoma. A second questionnaire, Brown and Holtzman's Survey of Study Habits and Attitudes (SSHA), was

completed by the students approximately three weeks later. This questionnaire was an attitude inventory designed to measure study habits and study attitudes of these junior students. The attitudes and work habits reflected by the SSHA have been significantly related to academic success, according to Brown and Holtzman; the scores identify those whose habits and attitudes may prevent them from taking full advantage of their educational opportunities. (Brown and Holtzman, 1967)

Moore High School, a large urban high school located in Moore, Oklahoma, provided facilities for 990 juniors and 880 seniors in 1983-84. As Moore, a town of approximately 35,000, lies seven miles north of Norman, Oklahoma, and nine miles south of Oklahoma City, there are many opportunities in the area for students to work part-time.

Limitations

The data collected from this research represent only one approach to comparing the academic performance of employed and non-employed high school juniors. The study is limited to a sample of students selected from the junior class at Moore High School, Moore, Oklahoma. Thus, one is cautioned against generalizing the find-

ings of this research effort to populations dissimilar to the one at Moore High School. It is important to note, however, that no literature has been found which indicates there are significant differences in the student population at Moore High School and students at other high schools in the midwestern portion of the United States.

The use of the grade point average as an indication of scholastic performance is perhaps questionable, but Keith believes grades in school are the most frequent means used by parents, students, and schools in assessing a student's progress. (Keith, 1982, p. 249) One should be aware, however, that the grade point average of students often contains a strong motivational component. Some faculty members, according to Mitzel, include in student's grades such traits as motivation, effort, work habits, dependability, and interpersonal skills (1982, p. 1,146).

This study should be looked upon as an exploratory study which may lead to more research. Conclusions drawn from this study should not be seen as inferring causal relationships.

Hypotheses

In order to assess the impact of working on high school students, the researcher examined the following dependent variables: grade point average, scores on Survey of Study Habits and Attitudes, and extent of extracurricular participation. The following null hypotheses were tested using each of the three dependent variables singly.

- (1) Null hypothesis regarding gender main effect: Male and female juniors do not differ on the dependent variables;
- (2) Null hypothesis regarding employment status main effect: Employed and non-employed juniors do not differ on the dependent variables;
- (3) Null hypothesis regarding interaction between gender and employment status: Gender and employment status of high school juniors do not interact in their effects on the dependent variables.

Three additional hypotheses were tested:

- (4) There is no significant difference in plans for education beyond high school between employed and non-employed high school juniors.
- (5) There is no significant relationship between the number of hours worked per week and the academic performance (measured by grade point average for the first semester of the junior year) of high school juniors.
- (6) There is no significant relationship between academic performance (measured by

grade point average for the first semester of the junior year) of high school juniors and each of the following: Survey of Study Habits and Attitudes (SSHA) scores, number of hours worked per week, Stanford Achievement Test level, extracurricular participation per week, and total semesters a student has been working.

Definitions

1. Part-time employment: any regularly scheduled work performed during the school year for wages or other remuneration by a person who is regarded as a full-time high school student. May include babysitting, lawnmowing, newspaper routes, or work in a business operated by a student's parents, even though no wages are paid in money.
2. Employed student: any student employed in a part-time job at least 10 hours per week during the regular school term.
3. Non-employed student: any student who does not have a part-time job or works less than 10 hours per week in casual or irregular employment during the regular school term.
4. Education beyond high school: any formally organized educational program which has the purpose of improving the individual's employability and which is undertaken after graduation from high school.
5. Grade point average: the grade point average for the first semester of the current (junior) year.

Organization of the Study

The report of this research is organized into five chapters. In Chapter I, the rationale which led to the development of the study is presented. A statement of the problem, the significance of the study, the limitations, hypotheses and the definitions of terms are included. A summary of the literature reviewed and its relation to this study are presented in Chapter II. Chapter III contains a complete description of the nature and sources of data. The procedures for collecting and analyzing the data are also presented. The presentation and interpretation of data are found in Chapter IV. The summary and conclusions in Chapter V include recommendations for parents, teachers, counselors, administrators, and others who regularly counsel with students concerning the advisability of combining part-time employment and academics during the high school years.

CHAPTER II

REVIEW OF RELATED LITERATURE

The Rand Youth Poll in New York estimates that two out of three young people (aged 16 through 19) work part-time during the school year or full-time during the summer; also, 45 percent of boys and girls 13 through 15 work part-time as well. (Greenberger and Steinberg, 1980)

A number of educators and researchers have warned that holding down a job can spell trouble for these young people, especially those whose earnings are not really needed at home. Employment may not only detract from teenagers' schoolwork but also may enable them to spend more than they should on cars and unnecessaries--plus alcohol and drugs.

Academic Performance

Educators have witnessed an increased concern for improved student academic performance in recent years (Howes, 1970; Holtzman, 1970). This increased concern is seen by many as a consequence of various forces

coming to bear on our educational system. Howes and Holtzman suggested some of these forces were: the launching of Sputnik, student unrest of the 1960s, civil rights legislation, economic prosperity, and a growing adolescent population.

Meehan (1974) contends that the most widely researched subject area of academic performance is the over- and under-achiever consideration. He further suggests:

The basic premise involved is the acceptance of some level of predicted performance. Causal factors for deviations from the predicted levels are the goals of the research. Many researchers, even the earliest, tended to seek explanations in a combination of intellectual and non-intellectual causal factors, but the great majority of researchers tended to accept intellectual measures, particularly IQ scores, as indicants of levels of ability and to define levels of expected achievement. Deviance from these levels many times connoted laziness on the part of the underachiever and some sort of excessive drive, social ability, or similar unacceptable motivations on the part of the over-achiever. (p. 12)

A proliferation of studies and articles in recent years reflects a widespread concern for academic performance at all levels of education. Wesley maintains that

. . . the earlier studies seem to have been more concerned with the characteristics of

low achievers, and there seems to be some confusion in the reported research caused by assuming the symptoms to be the causes of poor scholarship. Some of the earlier thinking attributed daydreaming, poor study habits, lack of interest, inability to organize material, poor home background, and the like to be the causes of low grades. (1961, p. 21)

Student performance in an educational endeavor is usually assessed by the teacher in the form of a mark or a grade. Marks summarize all the work considered relevant by the teacher over a course or a marking period. Marking systems are in effect at all levels of education; elementary school marking systems communicate primarily to parents, and college systems communicate to students and various external organizations. (Mitzel, 1982, p. 1,139)

The controversy surrounding grading systems in today's schools has been summarized in the Encyclopedia of Educational Research:

The question of defining the aspects of student behavior that should be included in a mark takes on special significance in regard to personal characteristics. Some faculty members and researchers argue that marks should be based solely on academic competence, as shown, for example, by performance on tests and assignments. Others believe that school-related, though nonachievement, traits such as motivation, effort, and work habits should also be considered in assigning marks. Still other faculty members suggest the inclusion of characteristics such as dependability, leadership, interpersonal skills,

and moral behavior as components in the grading process. (Mitzel, 1982, p. 1,146)

Despite their inherent weaknesses, grade in school have been consistently used to communicate to parents and others information concerning student performance; therefore, the grade point averages of high school juniors will be used in this study to represent academic performance.

Study Habits and Attitudes

Study skills are an important factor in academic performance. Heller emphasizes the development of "intellectual honesty" on the part of underachieving students so that they may more adequately and realistically evaluate their own work (Heller, 1968). He further suggests constantly confronting these students with their own inadequacies to encourage them to deal with them.

By the time students have reached high school, many of them have formed study habits and work methods that are less than desirable. This raises questions about whether failing students are lazy, unmotivated, lacking in ability, or perhaps are suffering from a learning disability. A number of authors have posed questions as to how these problems are resolved

(McAllister, Cowgill, and Stephenson, 1972).

Often, guidance and counseling programs are combined with study skills programs. Kaye recognizes that there seems to be no consensus in the literature delineating the most satisfactory method for dealing with the problem of academic failure. (Kaye, 1972)

In a study analyzing sex differences in study habits, study attitudes, and study knowledge of college freshmen, Seals (cited in Meehan, 1974) concluded differences did exist in scholastic motivation, scholastic behavior, and academic skills. In all cases where significant sex-based differences were identified, females scored higher than males. He also found that study attitudes appear to be somewhat more important than study habits in their influence on the academic performance of college freshmen.

Studies Concerning Part-time Employment

Part-time work by high school youth has been both praised and criticized. Working long hours has been cited as having a negative effect on the general attitudes of teenagers and on their social achievement. Others contend that part-time employment helps to develop young people's ability to budget their time

wisely and teaches good work habits. (Berryman and Schneider, 1982)

Several studies have been undertaken to provide information concerning the effects of working on college students, but fewer studies have been done using high school students as subjects.

Greenberger and Steinberg Study

One of the more well-known studies investigating employment of high school students was conducted by Ellen Greenberger and Laurence D. Steinberg (Greenberger and Steinberg, 1980). Data were collected from a sample of 531 10th- and 11th-grade students in Osage County, California. Researchers used survey questionnaires, on-site interviews of the adolescents, and interviews with their parents. The National Institute of Education (NIE), Washington, D.C., in conjunction with the Ford Foundation, funded the research at the University of California, Irvine, through a grant entitled: "Early Adolescents at Work: Costs and Benefits to Learning and Development."

The three reasons cited in the study which led researchers to suspect that employment may have some adverse effects on young people were: (1) Working may

take time away from other important activities such as schooling, family life, and relationships with friends; (2) The types of jobs typically available to teenagers may foster negative attitudes toward working; and (3) Because adolescence is a period of rapid and dramatic life change, the additional demands of a job may produce health and behavioral problems.

"Working" was defined as regular employment of at least three hours per week for a non-family member, and the selection criteria focused on the student's first formal work experience. At the time of the data collection (1978), members of the study sample were employed on the average of 20-24 hours per week in the following types of jobs: food service (35 percent), manual labor (15 percent), retail sales (13 percent), cleaning (10 percent), clerical (9 percent), skilled labor (6 percent), recreation aides and ushers (3 percent), hucksters (3 percent), newspaper delivery (2 percent), health aides (1 percent), and educational aides (1 percent).

The researchers paid careful attention to distinguishing worker/non-worker differences which are the consequence of the work experience from differences

which are operative prior to the work experience and part of the differential sorting or selection of youngsters into those who enter the labor force and those who do not.

Greenberger and Steinberg concluded that the benefits of working during the in-school years have been overestimated. Youngsters who work may gain in practical knowledge and have opportunities for modest levels of responsibility-taking, and youngsters who work may develop more advanced social skills. But adolescents do not typically learn new skills on the job, practice school-taught skills, form meaningful relationships with other adults, nor engage in high levels of responsibility-taking or social cooperation.

The most serious costs revealed by the study include: increased use of cigarettes, alcohol and marijuana; exposure to stressful conditions at work which appear to exacerbate substance abuse; declines in school involvement and academic performance; exposure to various forms of occupational deviance; and increased cynicism about the intrinsic value of work.

Other findings revealed by the study include: (1) Youngsters are provided few opportunities to use cognitive skills taught in school or to acquire new skills;

(2) Working does not alter youngsters' long-term occupational or educational plans; (3) Students who work spend less time on their studies, are less involved in extracurricular activities, and say they enjoy school less than youngsters who do not work; (4) Students who work tend to be absent from school more often than non-workers; and (5) Young people who work 15 hours or more per week are most likely to show a decline in academic performance.

The study uncovered evidence that job stress did appear to contribute to increased frequency of psychological symptoms among girls. Working was associated with increased use of cigarettes, alcohol, and marijuana. Aspects of job stress that exact costs to health are poor environmental conditions, autocratic supervision, impersonal work environment, low wage structure, perceived meaninglessness of job, and conflict of work with other roles.

A number of respected social scientists have argued that work experience during adolescence will facilitate the transition of young people into adulthood. Although this may be the case for some young people, for many young people the workplace

serves more as an extension of adolescent culture than as a bridge to adulthood. As a result, job income is more often spent on items that are highly salient in the peer culture: cars, records, extra clothes, cigarettes, and alcohol.

While holding a job does not appear to deter teenagers from delinquency, Greenberger and Steinberg found that it sometimes promotes a cynical attitude toward the worth of work and its satisfactions. They believe that the costs of working have been underestimated. Their data are based on a sample of first-time student-workers who had worked only nine months, and longer-term effects were not studied.

NCES Study

Another recent study, "Youth Employment During High School," was prepared for the National Center for Education Statistics (NCES) by Noah Lewin-Epstein of the National Opinion Research Center in Chicago. The NCES study was based on data collected through High School and Beyond, a longitudinal study of U.S. high school seniors and sophomores. The sample drew from each of 1,015 high schools a target number of 36 seniors and 36 sophomores, for a total of 58,270 stu-

dents. (Roth, 1981)

The NCES study focused on employment status, hours worked per week, wages, type of jobs, and students' future expectations. Data on working students were broken down by ethnicity, sex, family income, and type of community. Unlike the Greenberger-Steinberg study, the NCES study included students in government-sponsored work and training programs.

Young people cooperating in the study reported spending little time on the job interacting with an adult, used few basic skills learned in school, and underwent a minimum of on-the-job training. While the Greenberger-Steinberg study found that the high schoolers' job experiences were more likely to be an extension of adolescent culture than a bridge to the adult work world, the NCES report indicates that "... work in certain blue-collar and white-collar jobs performed during school serves as an entry mechanism into the adult labor market, particularly for students who do not obtain further schooling." (Roth, p. 46)

According to the NCES report, the American high school student appears to have ample free time; working does not seem to hamper school and social activities. The largest differences in work experience were found

between sophomores and senior students. The senior students resembled the adult labor force more and, even while in school, they seemed to be more involved in work and plans for adult jobs. Lewin-Epstein concluded that with more and more teenage students working, and for longer hours, closer examination should be given to the influence of part-time jobs on schooling.

Berryman and Schneider Study

Charles Berryman and Donald O. Schneider surveyed 1,277 secondary school students enrolled in 14 urban and suburban Georgia high schools (Berryman and Schneider, 1982). Subjects were classified by age, race, sex, demographic setting served by the school, and self-reported grades earned in school. Berryman and Schneider pointed out

Although some recent studies have provided interesting and sometimes contradictory findings about the extent of employment, kinds of jobs, hours worked and effect on school achievement and personal lives, few have looked holistically at work at home and on the job or dealt much with students' perceptions about their work and its effects on their lives. The study was, therefore, designed to parallel elements of other survey research studies in order to provide a basis for comparison, and to add additional dimensions either not dealt with or touched on only in a limited way in other studies.
(p. 2)

The Georgia report emphasized that family circumstances often affect the need to work both at home and outside the home. One measure of family circumstances is, of course, the number of working adults in the home. A majority of the sample (55 percent) lived in a home with two working adults, 37 percent with one working adult, three percent with three working adults, and four percent in a home without an employed adult.

A heavy majority of these students (88 percent) reported that they do some work at home, but 86 percent of these students indicated that they worked no more than 10 hours per week on home tasks. At the time of the survey, only 34.3 percent of the students had a job outside the home. Of students who held a job, 60 percent worked fewer than 21 hours per week, but 40 percent worked longer hours, usually equaling or exceeding their hours spent in class each week.

The number of hours worked per week was not significantly related to grades earned in school even for the small group who worked more than 40 hours per week. However, 20.8 percent of students who had recently given up a job cited interference with school work as

one reason for doing so, thus removing some of the possible tendency for work to affect achievement negatively in this sample.

The teenagers were given a list of ten possible reasons for holding a job. They were asked to respond in two ways: check all items that applied to them and then to list the single most important reason. Spending money was listed by 82.5 percent of the students as a reason for working, and saving for luxury items was listed as the single most important reason. Saving for college was ranked as fifth most important reason for working by only 12.4 percent of the students.

These response patterns were not unexpected as Berryman and Schneider noted " . . . the individualistic materialistic motives of American society, the diminished importance of children as an economic asset, the importance of the automobile and of college education are all clearly reflected in these student responses." (p. 9)

Generally speaking, the researchers found that "The more hours worked at home and away, the fewer hours are devoted to participation in school

activities." (Berryman and Schneider, p. 13) However, students with higher grades devoted more time to school activities than the other students did. Nearly one-third of the students said they didn't participate at all in school activities. The authors also concluded "Declining school participation with age and increasing time devoted to work suggested that many students begin withdrawing from the total educational process prior to graduation." (p. 14)

Hammond Studies

Wayne A. Hammond in his doctoral study, "Part-Time Employment Among High School Seniors: A Study of Selected Variables," investigated part-time employment among high school seniors in the 1966 graduating class of Charles F. Brush High School in the South Euclid-Lyndhurst, Ohio, City School District (Hammond, 1968). Hammond analyzed questionnaire data obtained from 243 boys and 230 girls. Employment history for the five preceding semesters of high school were collected. In 1966 when the data were collected, employed boys were working an average of 16.75 hours per week; employed girls averaged 13.88 hours per week.

Most of the seniors worked in retail stores,

restaurants, and other relatively unskilled positions. The employed senior boys were significantly lower in scholastic aptitude than were the non-employed. The employed and non-employed boys did not differ significantly in educational plans or choice of future careers. There were no significant differences among employed and non-employed girls on any of the foregoing traits. (Hammond, 1968)

Employed senior boys participated less in extracurricular activities than did the non-employed boys; employed and non-employed senior girls did not differ significantly in extracurricular participation. Unemployed boys made significantly higher grades than did the employed in both semesters of the 11th grade and in the first semester of the 12th grade. The difference in the 12th grade was significant with scholastic aptitude held constant. Unemployed girls made significantly higher grades than employed girls in the first semester of the 12th grade only; the difference was not significant with aptitude held constant. Hammond found that scholastic achievement was not significantly related for either sex to number of hours of employment per week or to type of job held. The lower-achieving employed boys, however, showed a ten-

dency to be employed longer hours and to be in different jobs than did the higher-achieving boys.

The results of Hammond's study leave considerable doubt that part-time employment is directly detrimental to scholastic achievement. Later, in summarizing his study the author stressed " . . . the findings do show evidence that the level of achievement may be significantly lower among the employed students than among the unemployed." (Hammond, 1970, p. 465)

A second study was conducted by Hammond in 1970 involving members of the senior class at Mentor, Ohio, High School, a large comprehensive school in a white residential suburb of Cleveland (Hammond, 1971). Although this was not a follow-up study in the exact sense, Hammond appears to be one of the few researchers who did additional work at a later time to gather data concerning the effects of part-time employment on the academic performance of high school students.

Hammond's second study utilized a revised form of his original questionnaire and obtained additional data from the school's permanent record cards. The study population consisted of 246 male and 189 female seniors. The mean number of hours of employment per

week was 22.18 for the boys and 18.26 for the girls, about five and four hours more, respectively, than for the Brush High School seniors in the earlier study.

Comparisons between the employed and unemployed students in six successive quarters failed to show any evidence that grades varied significantly with employment status. A student was classified as employed if he had a part-time job during more than half of the weeks in the quarter. Hammond theorized that if grades went down when students were employed and rose when they were not, that phenomenon should have manifested itself in comparisons of the grade point averages of the employed and unemployed groups.

The survey revealed that the employed boys did make lower grades in each grading period than did the unemployed; however, only in the final quarter of the junior year did the difference reach the .02 level of significance, as tested by the chi-square distribution. Scholastic aptitude did not appear to be a determining factor as the difference in mean IO between the employed and unemployed boys was very slight.

The data concerning the employed and unemployed girls presented a somewhat different pattern. Employed girls achieved at a higher level than the unemployed in

each of the six grading periods, although the difference was significant at the .05 level in the third quarter of the junior year only. Hammond found, though, that the employed girls had a higher average IO in each quarter, also. Further analysis showed that the differences in aptitude could account for part or all of the obtained differences in achievement, but these differences were not great enough to account for a significant difference in favor of the unemployed. Hammond (1971) says, "Since no significant differences in achievement were found, except as noted for the boys, certainly no assumption is warranted of a causal relationship between employment and achievement." (p. 66)

Hammond's conclusion reveals quite an introspective analysis of the arguments pro and con for employment of high school students:

The foregoing data certainly do not support the idea that part-time employment is damaging to the academic progress of the youths involved. Nor do they support the notion that the younger generation consists of indolent parasites who want worldly goods handed to them. On the contrary, if this study population is typical of teenagers generally, then one can reasonably conclude that these young people want to break away from dependence on their parents, provide for

their own futures, and take their place in the adult world. Unfortunately, the high school curriculum offers little that is applicable to adult life. A part-time job, even a low-skill, blind alley job, does provide meaningful experiences and a means whereby a teenager can begin to free himself financially, by providing funds for further education, from dependency on others. (p. 70)

Heffez Study

"The Effects of Part-Time Employment on High School Students' Grade Point Averages and Rate of School Attendance" was the title of a small-scale research project undertaken by Jack Heffez, Supervisor of Educational Services for the Youth Incentive Entitlement Project (YIEP). The YIEP participants attending Wingate High School were selected to represent the treatment group in the pretest-posttest control group (true) experimental design. The treatment was on-going participation in the YIEP program from April 1978 to February 1979. The 28 participants were given part-time employment, ten hours a week, during the school year and full-time employment, 35 hours a week, during the summer.

The control group included 28 randomly selected high school students who were not eligible for the YIEP program and who were also unemployed during the testing

period. The Heffez study (1979) was designed to test the empirical validity of the assumption that providing high school students with part-time employment during the school year and full-time employment during the summer increases the GPA scores and frequency of school attendance of these students.

Heffez detailed the qualifications for participation in the YIEP as follows: age (16 to 19 years of age), school enrollment, residence in entitlement area, and income at poverty level.

Two null hypotheses were tested:

- (1) There is no difference between the adjusted means of the YIEP students' GPA scores and non-YIEP participants' GPA scores.
- (2) There is no difference between the adjusted means of YIEP students' rate of school attendance and non-YIEP participants' rate of school attendance.

Since there were no significant differences suggested by the F ratios of either analysis of covariance, both null hypotheses were accepted. Although the results clearly do not support the proposition that providing high school students with part-time employment during the school year and full-time employment during the summer will result in an increase

in their GPA scores and the number of days which they attend school, the researcher concludes that " . . . attitudes which high school students took nine or more years to formulate cannot be radically transformed in so short a time span." (Heffez, 1979, p. 12)

Cook Study

Cook, in a study conducted through the Center for Social Organization of Schools at Johns Hopkins University, worked with a sample of 406 primarily inner-city dropouts in Milwaukee (1983). Measures of psychological health, interpersonal competency, and rebellious autonomy were taken on each dropout and repeated seven months later. Comparisons were made between the youths who had gone to work, returned to school, or done neither.

Cook interpreted the results of his study as follows:

1. Most of the predictable variance in outcome measures of Psychological Health, Interpersonal Competency, and Rebellious Autonomy is explained by pre-existing differences among individuals.
2. Youth employment has no measurable effect in these data on Psychological Health or Interpersonal Competency.
3. The full-time employment of dropout youth produces small increases in Rebellious

Autonomy, i.e., an increase in full-time work is associated with an increase in self-reported desire not to be told what to do or how to spend one's money.

4. Returning to school has negative effects on both Psychological Health and Interpersonal Competency in this dropout sample.
5. Self-reported arrests are not associated with employment status for these young urban dropouts.

Cook feels persistence in school is generally regarded favorably, but a return to schooling for some dropouts may cause decreases in psychological health and interpersonal competency. He maintains these students are returning to a previously unrewarding environment and could benefit from special attention and assistance from teachers.

Because working takes students out of the home, decreasing the amount of parental control, and exposes them to negative influences, often in the form of less-than-desirable co-workers, Cook says many people naturally feel that teenagers are pushed into delinquent behavior. He concludes, "Dropout youth would appear to be better served by employment than by the other options available to them." (p. 17)

Gottfredson Study

Denise C. Gottfredson (1984) investigated the effect of working while attending secondary school on self-reported delinquency. The study, also conducted through the Center for Social Organization of Schools at Johns Hopkins University, involved students from 69 schools in 17 cities in the United States.

Gottfredson states, "The preponderance of evidence from the studies on work and delinquency suggest that work as teenagers experience it has little or no effect on delinquency." (p. 23) The researcher also found that work experiences typically available to students do not affect the academic learning or psychological well-being of adolescents. The study, using data collected in 1981 and 1982, uncovered evidence that working does not have a detrimental effect on commitment to education, involvement in extracurricular activities, time spent on homework, attachment to school, or attachment to parents.

Unlike the Greenberger and Steinberg work (cited previously), this study revealed that students who work spend more time on homework and are more involved in extracurricular activities than nonworkers; also, working during the high school years tended to increase

later employment and earnings.

Evidence suggested that working decreases school attendance and dependence on parents for some subgroups on the study, but these effects are not translated into increases in delinquency. Gottfredson concludes, " . . . carefully implemented and theoretically based work experience and work-study combinations remain a plausible approach to reducing the risk of delinquency." (p. 24)

Ohio State Study

A recent study, released by Ohio State University, offers parents good news and bad news. After interviewing 12,000 high school students once during each of their four years of high school from 1979 to 1983, the researchers concluded that high school students who hold down part-time jobs do just as well academically as students who don't. The researchers caution, though, that the part-time workers are more likely to use drugs.

One of the more disturbing findings was that 59 percent of the boys who held down jobs had tried marijuana by the time they graduated, compared to only 48 percent of the jobless youths. With the girls, the

comparable figures were 59 percent and 36 percent.

Ron D'Amico, a researcher on the project, sponsored by the U.S. Labor Department, believes that greater independence and more available income contribute to increased drug usage. The study indicated that more teens are working now; 75 percent of the seniors surveyed worked at least once a week--double the figure for the early '60s. Few of the students reported they worked to help support their families. (Long, 1984)

Summary

As many recent surveys suggest that Americans are losing faith in their schools, educators are inclined to search for variables to manipulate to improve student performance. One easily manipulated variable is the time students spend on homework. Timothy Z. Keith, Duke University, studied the causal effects of homework time on high school seniors, as measured by grades. He used data gathered from the massive High School and Beyond report and concluded that " . . . increased homework demands and more stringent grading standards might increase both student achievement and confidence

in the schools." (Keith, 1982, p. 248)

The principal hypothesis of Keith's study revolved around the relationship between time spent on homework and high school grades. Of course, the employment status of high school students clearly affects the time available for homework or, for that matter, any other intellectual pursuits the students might lean toward. Thus, a student who spends 20 or more hours per week on the job must be highly motivated to "put in" a sufficient amount of time on homework.

For many college students, working has become a necessity, and many young people regularly accept this as a way of life. However, college students are more mature, and part-time employment for them may not be entirely detrimental. The Greenberger and Steinberg study (1980), one of the larger and more highly respected research efforts, revealed that students who work during high school spend less time on extracurricular activities and say they enjoy school less than students who do not work. Perhaps this decrease in extracurricular involvement and enjoyment of school affects decisions by students to terminate their education with the close of high school.

Berryman and Schneider (1982) also reported on the

decline of participation in extracurricular activities. They reported that nearly one-third of students did not participate in any school activities. They also felt that less participation in school activities and increased time devoted to work caused students to withdraw from the educational process as they approached graduation.

Such a withdrawal from the "educational process" could easily influence their decision to discontinue education beyond high school. As students become less involved, their attitudes toward their teachers and education, in general, might become less than favorable. Perhaps these negative attitudes, then, might be passed to their children.

Many of the studies cited used either small samples or ones of limited generalizability. The Heffez study, previously cited, included only 28 students who were eligible to participate in the YIEP (Youth Incentive Entitlement Program) and 28 students who were not eligible for the YIEP program. The YIEP students were provided part-time jobs, and the non-YIEP students were not employed. Since one of the requirements for participation in the YIEP program was "income

at the poverty level," the results of the study could be affected by the attitudes of the students.

A study involving the influence of part-time student employment on academic performance and investigating the study habits and attitudes of students could shed additional light on the complex decisions today's high school students must make. On the more positive side, however, such a study could reveal that favorable work experiences while in high school foster self-confidence, a personal sense of accomplishment, and interpersonal skills in dealing with others.

CHAPTER III

METHODS AND PROCEDURES

This study sought to examine the influence of part-time student employment and study habits and attitudes on academic performance of high school juniors. Specifically, this chapter contains a description of: (1) the selection of subjects, (2) the development and selection of the research instruments, (3) rationale for the study, and (4) treatment of the data.

Selection of Subjects

Demographic data and information concerning teenage part-time employment were collected by the use of a questionnaire administered to selected members of the junior class at Moore High School by their high school English teachers. Moore High School, a large urban high school, is located in Moore, Oklahoma.

The Survey of Study Habits and Attitudes (SSHA), a standardized survey instrument published by The Psychological Corporation and designed to measure study habits and attitudes of high school students and

college freshmen, was administered to the students three weeks later by their English teachers.

A purposive sample was selected to minimize the influence of community differences in educational offerings and availability of jobs. The sample, consisting of 477 junior students, was drawn from a pool of 990 students and included students who were present on each of two testing days at Moore High School. Juniors who were excluded from the study were those special education students who were not present in the regular junior English classes and whose grades could not properly be compared to students in the regular program.

Data were collected on each student including: employment status (taken from the student employment questionnaire), Survey of Study Habits and Attitudes scores; grade point average, and level of past achievement (based on students' stanine scores on the Stanford Achievement Tests from the ninth grade).

After the employment questionnaires and the Survey of Study Habits and Attitudes tests were collected and collated, those students for whom information was not available on all of the selected variables were dropped from the sample. Thus, the sample of 477 students

represented 48 percent of the available population.

Similar studies reviewed included data gathered from high school sophomores, juniors, and/or seniors. Junior students were selected for this study as they were more likely to be carrying a normal class load; many seniors take a reduced load. Thus, the effects of part-time employment on the seniors might not be so pronounced. Generally speaking, junior students are more mature than most sophomores and are probably more involved with planning for college or for future employment. The researcher and the cooperating high school principal believed, too, that data collected concerning these high school juniors might be useful in counseling with students and parents regarding the advisability of students continuing to work extensively if their achievement appears to be affected.

Moore contains two mid-high schools and one large high school, housing juniors and seniors, with a combined enrollment of 1,870 in 1983-84. Moore, Oklahoma, with a population of approximately 35,000, lies seven miles north of Norman, Oklahoma, a city where the University of Oklahoma is located, and nine miles south of Oklahoma City. Thus, there are many opportunities

in the area for students to work part-time.

While offering its citizens many of the advantages of a larger community, Moore appears to be representative of many other small towns across the midwestern portion of the United States. Located within easy driving distance of a number of four-year and two-year colleges and universities, Moore provides countless opportunities for students to pursue education beyond high school.

Some have described Moore as a "bedroom" community in that no large industries are located here, and over 75 percent of its labor force commutes outside the city for employment. Employment opportunities within Moore are principally in retail sales, fast food, several industries associated with home building, and some oil-related businesses.

The community of Moore came into being when Oklahoma Territory was legally opened for settlement on April 22, 1889. The first 70 years of Moore's existence gave little indication of what the future held. During the very brief period from 1960 to 1964, the townsite was expanded from an area of about two square miles to more than 21 square miles. The rapid

development of Moore is influenced by its location approximately midway between Oklahoma City, the state's largest city and Norman, the state's fourth largest city. The completion of Interstate 35, which cuts through the center of Moore, and other expressways provided access to major employment centers and cultural and recreational facilities. (1980 Community Profile of Moore, Oklahoma, prepared by the Moore Chamber of Commerce)

According to the 1980 Census of Population and Housing, prepared by the Oklahoma State Data Center (Department of Economic and Community Affairs), the mean family income in Moore in 1979 was \$23,044. Another plus for the city was its relatively low unemployment rate of 5.6 percent in 1980 as reported by the Moore Chamber of Commerce.

The North Central Evaluation of Moore High School (December, 1982) showed the ethnic composition of the student body (1981-82) as follows: Indian, 17 percent; Black, 1 percent; Spanish, 1 percent; Vietnamese, 1 percent; Oriental, 1 percent; and White, 79 percent. Many students in Moore apparently plan to continue with their education after completing high school; a survey made in the senior English classes in 1982 indicated

that 72 percent of the students planned to continue with some kind of formal education beyond high school.

The Research Instruments

Questionnaires were used to collect the data for the study. Tuckman identified the purposes for which questionnaires are used:

Questionnaires are used by researchers to convert into data the information directly given to a person. By providing access to what is 'inside a person's head,' these approaches make it possible to measure what a person knows (knowledge or information), what a person likes or dislikes (values and preferences), and what a person thinks (attitudes and beliefs). (Tuckman, 1972, p. 48)

Two separate questionnaires were used for this study. One questionnaire was developed to collect personal data on employed and non-employed high school juniors. Questions were designed to elicit information on such things as number of hours worked per week, education level of parents, reasons for not working, and type of jobs held. Later, the grade point averages were compared for the employed and the non-employed students to determine if there were differences in performance between the two groups.

A second questionnaire was administered to the students some three weeks later. This questionnaire was a standardized survey instrument designed to measure study habits and study attitudes of these junior students. It was believed that the study habits and study attitudes formed over a period of years could affect the academic performance of high school students.

Development of Questionnaire on Employment

The initial step in the development of the survey instrument was a review of the literature concerning part-time student employment. A computer search was conducted at East Central University, Ada, Oklahoma, to obtain a listing of all studies recently conducted pertaining to part-time employment of teenagers.

Using studies conducted by Hammond (1968), Berryman and Schneider (1982), and Greenberger and Steinberg (1980) as models, the researcher selected 25 items for the questionnaire. (See Appendix A)

Principal Glen Moore of Moore High School, Moore, Oklahoma, then asked seven counselors at the high school to review the questionnaire and to make suggestions for additions, deletions, or revisions.

These counselors were knowledgeable about the employment patterns of the students and were able to make suggestions concerning the reading level and general clarity of the questionnaire.

Selection of SSHA Questionnaire

A number of publishers' survey catalogs were perused, and specimen sets of tests on study habits and attitudes were reviewed. Tests in Print II (Buros, 1974) and Tests in Print III (Mitchell, 1983) were searched thoroughly. Carleton B. Shay, California State College, Los Angeles, California, in his review in The Seventh Mental Measurements Yearbook, stated:

Brown and Holtzman's Survey of Study Habits and Attitudes (SSHA) has been carefully devised and has satisfactory reliability. It is a good teaching aid for teachers and counselors. (Buros, 1972, p. 1,211)

The Survey of Study Habits and Attitudes (SSHA), which was designed to measure factors associated with student academic success other than intellectual aptitude, may be given to secondary school students (grades 7 - 12) or to college freshmen. Published by The Psychological Corporation (1967), the test yields a score on Study Habits (possible 100), a score on Study Attitudes (possible 100), and a combined score called

Study Orientation (possible 200).

The SSHA is recommended for use as a (a) screening instrument, (b) diagnostic instrument, and (d) research tool. Martin J. Higgins advises " . . . the SSHA appears to have adequate validity and reliability and it is feasible to administer and score. It may have considerable use as a counseling aid in high schools, junior colleges, and four-year institutions." (Buros, 1972, p. 1,211)

Construction of the Survey of Study Habits and Attitudes began with an exhaustive review of the literature and a series of group discussions with college freshmen concerning the motivational differences between good and poor students. A total of 234 items was compiled from group interviews, existing inventories on study habits, studies using observational and interview techniques to differentiate good and poor students, and reports on related experiments in the field of learning. These items were generally of two kinds: those dealing primarily with the mechanics and conditions of studying and those concerned with attitudes toward studying and motivation to do well in academic work.

A final revision of the questionnaire produced a

75-item SSHA published in 1953. The 1953 SSHA yielded only one score. Many counselors expressed a belief that part scores, if available, would provide unique and worthwhile data for diagnostic purposes. In 1956 a revision of the SSHA was prepared for research use and contained 100 items. Beginning in 1959, further revision of the SSHA for use in Grades 7 through 12 was undertaken by three separate committees working under the direction of the senior author.

The test provides scores on Delay Avoidance (Maximum Score of 50), Work Methods (Maximum Score of 50), Teacher Approval (Maximum Score of 50), and Education Acceptance (Maximum Score of 50). The Delay Avoidance and Work Methods scores, summed, yield a possible score of 100, called the score on Study Habits. The Teacher Approval score and Education Acceptance score may be added to produce a possible score of 100, called the score on Study Attitudes. Finally, the Study Habits score and the Study Attitudes score are combined to produce a possible score of 200, the Study Orientation score (Table 1).

Validity

Form H (the high school edition) of the SSHA has been validated in a large number of junior and senior high schools throughout the United States. During the fall of 1964, the SSHA (Form H) was administered to 3,731 students in Grades 7 through 12 at ten schools in central Texas. Correlations between SSHA total score (Study Orientation--SO) and grades were without exception statistically significant, ranging from .31 to .85 with a mean of .55. Many research results pointed to the fact that the SSHA correlated favorably with academic performance (grade point averages), while being relatively independent of scholastic aptitudes as measured by a typical intelligence test.

Reliability

Test-retest reliability coefficients, with an interval of four weeks between sessions, were .95, .93, .93, and .94, respectively, for the Delay Avoidance, Work Methods, Teacher Approval, and Education Acceptance scales, and .95 for SSHA total score (SO) on the high school test (Form H).

TABLE 1

SUBSCALES OF THE SURVEY OF STUDY HABITS AND ATTITUDES

Study Habits

- SSHA Delay Avoidance Subscale (DA) measures your promptness in completing academic assignments, your lack of procrastination, your freedom from wasteful delay and distraction.
- SSHA Work Methods Subscale (WM) measures your use of effective study procedures, your efficiency in doing academic assignments, your how-to-study skill.
- SSHA Study Habits Skill (SH) combines the two preceding scores to provide an overall measure of your scholastic behavior.

Study Attitudes

- SSHA Teacher Approval Subscale (TA) measures your opinion of teachers and their classroom behavior and methods.
- SSHA Education Acceptance Subscale (EA) measures your approval of educational objectives, practices, and requirements.
- SSHA Study Attitudes Scale (SA) combines the two preceding scores to provide an overall measure of your academic beliefs.

Study Orientation

- SSHA Study Orientation Score (SO) combines your scores on the four basic subscales to provide a single measure of your study habits and attitudes.

Studies on the SSHA for college freshmen (Form C) and the SSHA for high school students (Form H) indicate that the four subscale scores are sufficiently stable through time to justify their use in predicting future behavior or in assessing the degree of change in study habits and attitudes after counseling.

Pilot Study

A pilot study was conducted by submitting the questionnaire on employment to 30 junior students at Ada High School, Ada, Oklahoma. The 30 students in their junior English class were asked to react to the clarity of the directions and to place a question mark in the left margin beside any question they did not understand. Suggestions from the Ada students and the Moore counselors were used to provide for more uniformity and less duplication of the items on the questionnaire. There seemed to be general agreement that the questionnaire was complete in covering the areas indicated in the purpose of the study.

Distribution of the Questionnaires

The revised questionnaires on employment were taken to Moore High School. The junior English

teachers at the high school administered the questionnaires during their regular English classes.

Three weeks later the English teachers at the high school administered Brown and Holtzman's Survey of Study Habits and Attitudes to the same group of juniors.

Rationale for the Study

Students in the Moore Public School system generally take the Stanford Achievement Test while in the eighth and ninth grades. Therefore, for most students, scores on the achievement test were recorded on permanent record files in the offices of the seven counselors at Moore High School.

The Stanford Achievement Test (1973 Edition) for Advanced Level Grades (7.0 - 9) provides data on vocabulary, reading comprehension, mathematics concepts, computation, applications, spelling, language, social science, and science. The scores are reported in stanines. Scores were taken from the permanent record files and recorded at the top of each student's completed employment questionnaire (see Appendix A). If a student's score placed him in the lower third of the stanine scores (relative to the national norms),

an L was recorded for that student. An A was recorded if the student's stanine score was in the middle third, and an H represented the top third stanine on the achievement test.

Stanford Achievement Test (SAT) scores for the ninth grade were chosen because they represented a more recent measure than the scores in the eighth grade. Of course, not all students had such scores available. Some of the transfer students did have the SAT scores, but a number of them did not.

Marilyn N. Suydam, Ohio State University, Columbus, reported on the efficacy of the Stanford Achievement Test:

Claims for content and construct validity appear justified. Reliability is high and consistent across levels and forms, ranging from .76 to .95 (split halves) and .77 to .94 (K - R 20). While data on some individual items could be questioned, the degree of consistency is what should be expected from a carefully constructed test . . . norms are extensive; administration, scoring, and other procedures are carefully explicated. One could do decidedly worse in selecting a norm-referenced test. (Buros, 1978, p. 292)

A number of other researchers, concerned with the advisability of students working at part-time jobs while in high school, have used various ability measures (most often, IQ scores) to determine if

working was more detrimental to the students who possessed less ability as shown on IO reports.

The Stanford Achievement Test scores were selected for this study because they were believed to be a fairly representative index of the achievement levels of these students. The Survey of Study Habits and Attitudes test (SSHA), as reported earlier, was designed to measure factors associated with student academic success other than intellectual ability (IO). Because the SSHA has been widely used and validated over a period of many years, it was utilized in this research effort as it provides an overall score (Study Orientation) indicative of the students' study habits and attitudes. A student's academic performance is determined by many things, this writer believes, in addition to, or aside from intellectual ability. This research, then differs from many previous studies in that it utilizes students' scores on the SSHA and their previous levels of achievement, represented by L for Low, A for Average, and H for High on the Stanford Achievement Test, in addition to employment status.

The researcher theorized that students who score in the lower third (represented by L) on the Stanford Achievement Test, who score extremely low on the SSHA

test, and who work 20 or more hours per week in a part-time job could easily find themselves in trouble academically.

Keith (1982), cited previously, suggested using the grade point average because parents, teachers, and schools frequently use students' grades to assess their progress. Students' grade point averages were available from the computer at Moore High School. The decision was made to use each student's grade point average for the first semester of the junior year. This grade point average (GPA) should reflect the effects of employment, if any, on the employed students.

Treatment of the Data

All statistical analyses were performed by computer at the University of Oklahoma using the standard Statistical Analysis System. The hypotheses that pertain to differences between employed and non-employed high school juniors and to gender differences on academic performance, on Survey of Study Habits and Attitudes scores, and extent of participation in extracurricular activities were tested by the use of the two-way analysis of variance. The purposes of these

analyses were: (1) to determine whether a significant amount of variance in grade point averages of students could be attributed to gender, (2) to assess the effects of employment on GPA, and (3) to examine the interaction effect of gender and employment status.

Kazmier (1979) suggests the use of the analysis of variance when the populations are normally distributed and have equal variances (homogeneity of variance). Wike (1971) says some investigators have relied upon the central limit theorem to minimize the importance of a normally distributed population. According to this theorem, indices, such as the mean, tend to be normally distributed as the size of the sample increases regardless of the shape of the parent population (Wike, p. 30). In addition, Hays suggests, "When both samples are quite large, then both the assumptions of normality and of homogeneous variances become relatively unimportant." (Hays, 1963, p. 322) The two-way ANOVA allows for the identification of sources of variance that would not otherwise be identified in a simple t-test with employment status as the independent variable.

Hypothesis 4 was tested by the use of the chi-

square test. Popham and Sirotnik believe the chi-square test is the most important member of the non-parametric family of tests. They suggest the use of chi-square with data that are nominal in strength. Although, according to Popham and Sirotnik, chi-square is employed to test the differences between an actual sample and another hypothetical or previously established distribution, it may also be used to test differences between two or more actual samples. (1973, p. 284)

Also, Siegel states that "When the data of research consists of frequencies in discrete categories, the chi-square test may be used to determine the significance of differences between two independent groups." (Siegel, 1956, p. 104) Therefore, this test was considered appropriate for assessing the differences in plans for education beyond high school between the employed and non-employed juniors.

The regression analysis was used to test the relationship between the number of hours worked and the academic performance of employed high school juniors (Hypothesis 5). Regression is closely related to the product-moment correlation technique and may be used to make reasonably meaningful predictions based upon

information previously collected. Popham and Sirotnik suggest referring to the variable from which the prediction is to be made as the independent or predictor variable and the variable that is predicted as the dependent or criterion variable. (1973, p. 97) Thus, in the present study, the number of hours worked was used as the predictor variable, and the academic performance (represented by grade point average) was considered the criterion variable.

The multiple regression analysis was used to test Hypothesis 6. Popham and Sirotnik advise:

This technique . . . uses two or more predictor variables, both of which are related to the criterion variable, by incorporating them into a more complex prediction scheme. Although more involved than single regression with a single predictor variable, multiple regression employs the same rationale in making decisions. (p. 105)

The researcher's intent in testing Hypothesis 6 was to determine if there is a significant relationship between academic performance of high school juniors and each of the following independent variables: Survey of Study Habits and Attitudes scores, number of hours worked per week, Stanford Achievement Test level, extracurricular participation per week, and total

semesters a student has been working.

Summary

The following basic procedures were employed in the study:

1. A review of the literature was conducted to obtain information concerning recent studies pertaining to part-time employment of teenagers.

2. A questionnaire on employment was developed, which obtained background information on students, the extent of their participation in part-time jobs, and their attitudes toward working.

3. A pilot study was conducted at Ada High School, Ada, Oklahoma, to gain reactions of students and to allow the researcher to clarify statements and to avoid duplication of the items on the employment questionnaire.

4. The sample was drawn to include 477 students from the junior class at Moore High School, Moore, Oklahoma, and included students present on each of two testing days. The sample consisted of 196 non-employed students and 281 students who were working.

5. The junior English teachers at Moore High School administered the questionnaire on employment to

the students in their regularly scheduled classes. All students who were present were asked to participate; special education students were not included as they were not in the English classes.

6. Approximately three weeks later the Survey of Study Habits and Attitudes (SSHA) was completed by the students present in the same English classes; as before, the English teachers at Moore High School administered the test.

7. Data from the employment questionnaire were entered into the computer at the University of Oklahoma to be analyzed by the Statistical Analysis System (SAS).

8. The Survey of Study Habits and Attitudes tests were hand scored; the students' scores on Delay Avoidance, Work Methods, Teacher Approval, and Education Acceptance were entered into the computer and were summed to provide a total score on Study Orientation.

9. The following analyses were used to statistically analyze the data: the analysis of variance, which is used to determine if there is a significant difference in GPA between employed and non-employed students; the chi-square test, appropriate when data

from two independent samples are nominal; the regression analysis, which enables one to make a prediction from the criterion variable; and the multiple regression analysis, a procedure incorporating more than one predictor variable and yielding more precise predictions. Finally, descriptive statistics produced frequencies, percentages, and cumulative percentages.

CHAPTER IV

FINDINGS

Chapter III contains a complete description of the nature and sources of data; the procedures for collecting and analyzing the data were also detailed. This chapter contains the results of the research effort concerning part-time student employment among high school juniors and the effects of such employment upon the academic performance of these students. The chapter is divided into four sections: description of the respondents, results of testing the hypotheses, data from employment questionnaire, and a brief summary.

Description of the Respondents

The respondents in this study were 477 students selected from the junior class at Moore High School, Moore, Oklahoma. The sample included 281 students employed for 10 or more hours per week and 196 non-employed students.

Of the respondents, 49.7 percent (237) were females and 50.3 percent (240) were males (Table 2). As shown in Table 3, slightly over 51 percent of the students were 16 years of age, almost 46 percent were 17 years old, less than three percent were 18 years old, and fewer than one percent were 15 years of age.

For the purpose of this research, students were ranked according to their performance on the Stanford Achievement Test recorded during their ninth year of school. Scores were reported as stanines with L, A, and H recorded if students' scores fall into the lower third, middle third, or upper third stanines, respectively (Table 4).

Results of Testing the Hypotheses

Six hypotheses were tested in this study; each contributed to the analysis of the research problem. In all of the analyses, hypotheses of no significant difference were rejected at the .05 level of significance. The presentation of the findings includes a statement of the hypothesis followed by the results of the tests relevant to the hypothesis.

In testing the hypotheses, the researcher defined grade point averages as the grade point average for the

TABLE 2
 FREQUENCIES AND PERCENTAGES OF STUDENTS
 BY SEX AND EMPLOYMENT STATUS

N = 477

Variable	Females N = 237		Males N = 240	
	f	%	f	%
Non-Employed	98	41.4	98	40.8
Employed	<u>139</u>	<u>58.6</u>	<u>142</u>	<u>59.2</u>
Total	237	100.0	240	100.0

TABLE 3
 AGE OF STUDENTS IN SURVEY SAMPLE

N = 477

Age	Frequency	Cum Freq	Percent	Cum Percent
15	2	2	0.419	0.419
16	244	246	51.153	51.572
17	218	464	45.702	97.274
18	13	477	2.725	100.000

TABLE 4
 PERCENTAGES OF STUDENTS AND THEIR RANKS
 ON STANFORD ACHIEVEMENT TESTS
 N = 477

Rank	Frequency	Cum Freq	Percent	Cum Per
L (Low)	55	55	11.530	11.530
A (Ave)	316	371	66.247	77.777
H (High)	106	477	22.222	100.000

TABLE 5
COMPARISON OF EMPLOYED AND NON-EMPLOYED JUNIORS
BASED ON ACADEMIC PERFORMANCE
Procedure: Two-way Analysis of Variance

Source	DF	SS	F Value	Probability
Sex	1	27.52	47.09	0.0001
Employment	1	0.56	0.96	0.3287
Sex X Employment	1	0.24	0.41	0.5219
Error	473	274.11		

TABLE 6
COMPARISON OF EMPLOYED AND NON-EMPLOYED JUNIORS
BASED ON SSHA SCORES
Procedure: Two-way Analysis of Variance

Source	DF	SS	F Value	Probability
Sex	1	27529.40	32.26	0.0001
Employment	1	277.11	0.32	0.5691
Sex X Employment	1	19.47	0.02	0.8800
Error	473	399407.14		

TABLE 7
COMPARISON OF EMPLOYED AND NON-EMPLOYED JUNIORS
BASED ON HOURS OF EXTRACURRICULAR PARTICIPATION PER WEEK
Procedure: Two-way Analysis of Variance

Source	DF	SS	F Value	Probability
Sex	1	0.00	0.00	0.9988
Employment	1	504.26	4.29	0.0389
Sex X Employment	1	78.88	0.67	0.4132
Error	472	55506.39		

TABLE 8
COMPARISON OF EMPLOYED AND NON-EMPLOYED JUNIORS
BASED ON EDUCATIONAL PLANS
Procedure: Chi-square

Group	Continuing Education (No)	Continuing Education (Yes)	Total
Non-employed	25	165	190
Employed	36	242	278
Total	61	407	468

Chi-square with 1 df = 0.004; probability = 0.9476

Results indicate no difference at the .05 level of significance.

TABLE 9
 COMPARISON OF EMPLOYED AND NON-EMPLOYED JUNIORS
 BASED ON EDUCATIONAL PLANS
 Procedure: Chi-square
 Female Students

Group	Continuing Education (No)	Continuing Education (Yes)	Total
Non-employed	10	83	93
Employed	14	123	137
Total	24	206	230

Chi-square with 1 df = 0.017; probability = 0.8966

Results indicate no difference at the .05 level of significance.

TABLE 10
COMPARISON OF EMPLOYED AND NON-EMPLOYED JUNIORS
BASED ON EDUCATIONAL PLANS

Procedure: Chi-square

Male Students

Group	Continuing Education (No)	Continuing Education (Yes)	Total
Non-employed	15	82	97
Employed	22	115	137
Total	37	197	234

Chi-square with 1 df = 0.015; probability = 0.9023

Results indicate no difference at the .05 level of significance.

TABLE 11
THE RELATIONSHIP BETWEEN NUMBER OF HOURS WORKING
AND ACADEMIC PERFORMANCE

Procedure: Regression Analysis

N = 437*

Model	Parameter	Standard	T for H_0 :	p
Coefficients	Estimate	Error	Parameter=0	Probability
INTERCEPT	2.7054	0.0496	54.558	0.0001
WORK HOURS	-0.0023	0.0029	-0.784	0.4333

The model is $Y = a + bX$ where Y is GPA and X is hours worked per week.

GPA is computed on the first semester of junior year.

Grade point average calculated on a 4-point scale with A=4, B=3, C=2, D=1, F=0.

*Includes only students with grade point averages between 1.0 and 3.9.

TABLE 12
 THE RELATIONSHIP BETWEEN ACADEMIC PERFORMANCE
 OF HIGH SCHOOL JUNIORS AND EACH OF THE FOLLOWING:
 SSHA SCORES, NUMBER OF HOURS WORKED PER WEEK,
 STANFORD ACHIEVEMENT TEST LEVEL, EXTRACURRICULAR
 PARTICIPATION PER WEEK, AND TOTAL SEMESTERS WORKING
 Procedure: Multiple Regression Analysis
 N = 437*

Model	Parameter	Standard	T for H_0 :	p
Coefficients	Estimate	Error	Parameter=0	Probability
INTERCEPT	1.3466	0.1372	9.812	0.0001
SSHA	0.0069	0.0010	6.607	0.0001
WORK HOURS	0.0026	0.0030	0.872	0.3834
SAT SCORE	0.3714	0.0564	6.587	0.0001
EXTRACUR	0.0085	0.0031	2.765	0.0059
TSEMWORK	-0.0358	0.0191	-1.875	0.0615

The model is $Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5$

Y = GPA; X_1 = Survey of Study Habits and Attitudes score;
 X_2 = hours worked per week; X_3 = Stanford Achievement Test
 level; X_4 = hours of extracurricular participation per
 week; and X_5 = total semesters student has worked.

GPA is computed on the first semester of junior year.

Grade point average calculated on a 4-point scale with A=4,
 B=3, C=2, D=1, F=0.

F Value = 26.30 ($p = 0.0001$); $R^2 = .23$

*Includes only students with grade point averages between
 1.0 and 3.9.

TABLE 13
INTERCORRELATIONS AMONG VARIABLES USED
IN MULTIPLE REGRESSION ANALYSIS

	GPA	SSHA	WORK HOURS	SAT SCORE	EXTRA- CUR	TSEM WORK
GPA	1.0000 0.0000 437	0.3594 0.0001 437	-0.0376 0.4333 437	0.3646 0.0001 437	0.1680 0.0004 437	-0.0891 0.0626 437
SSHA		1.0000 0.0000 437	-0.0242 0.6140 437	0.2257 0.0001 437	0.0786 0.1005 437	0.0316 0.5093 437
WORK HOURS			1.0000 0.0000 437	-0.0394 0.4118 437	-0.1246 0.0091 437	0.5159 0.0001 437
SAT SCORE				1.0000 0.0000 437	0.0787 0.1001 437	0.5159 0.1693 437
EXTRACUR					1.0000 0.0000 437	-0.0902 0.0592 437
TSEMWORK						1.0000 0.0000 437

first semester of the junior year.

Hypothesis 1. Male and female juniors do not differ on the dependent variables (grade point averages, scores on the SSHA test, and extent of extracurricular participation).

Results of the two-way analysis of variance (Table 5) indicate the independent variable sex does affect the academic performance of high school juniors ($p = 0.0001$). The two-way analysis of variance (Table 6) also indicates the independent variable sex affects the scores of these juniors on the Survey of Study Habits and Attitudes ($p = 0.0001$). However, Table 7 shows that gender does not significantly affect the students' participation in extracurricular activities ($p = 0.9988$).

Hypothesis 1, then, must be rejected as males and females differed significantly on two of the three dependent variables tested. Female students performed significantly higher on grade point average and SSHA test scores, but there was no significant sex difference regarding participation in extracurricular activities.

Hypothesis 2. Employed and non-employed juniors do not differ on the dependent variables (grade point averages, scores on the SSHA test, and extent of extracurricular participation).

The two-way analysis of variance (Table 5) indicates the independent variable employment status does not significantly affect the grade point averages of the students ($p = 0.3287$). Table 6 also indicates the independent variable employment status does not significantly affect the SSHA scores of these high school juniors ($p = 0.5691$). However, Table 7 shows employment status significantly affects students participation in extracurricular activities ($p = 0.0389$).

Hypothesis 2 must be rejected because employment status of the students did impact significantly on student participation in extracurricular activities; employment status did not affect significantly the other two dependent variables, grade point averages or scores on the SSHA tests.

Hypothesis 3. Gender and employment status of high school juniors do not interact in their effects on the dependent variables (grade point averages, scores on the SSHA tests, and extent of extracurricular participation).

Table 5 shows no statistically significant interaction effect for sex and employment status on the dependent variable grade point average ($p = 0.5219$).

Table 6 indicates no statistically significant interaction effect for sex and employment status on the dependent variable SSHA scores ($p = .88$).

Table 7 also indicates no statistically significant interaction effect for sex and employment status on the dependent variable extracurricular participation ($p = 0.4132$).

Hypothesis 3 was accepted as the data reveal no statistically significant interaction effect for the independent variables sex and employment status on the dependent variables grade point averages, scores on the SSHA tests, and extent of participation in extracurricular activities.

The graph in Figure 1 compares grade point averages and employment status of the high school juniors. The grade point averages for the non-employed and employed females are 2.99 and 2.88, respectively; the grade point averages for the non-employed and employed males are 2.45 and 2.43, respectively. One might expect the grade point averages of the females to be higher than that of the males. Northby (cited in Ebel, 1969) reports: "It is a well-documented fact that girls do better in school than boys do, at least as far as teacher-rated achievement is concerned." (p. 1,218)

Figure 2 compares the study habits and attitudes (as reflected by SSHA scores) and employment status for

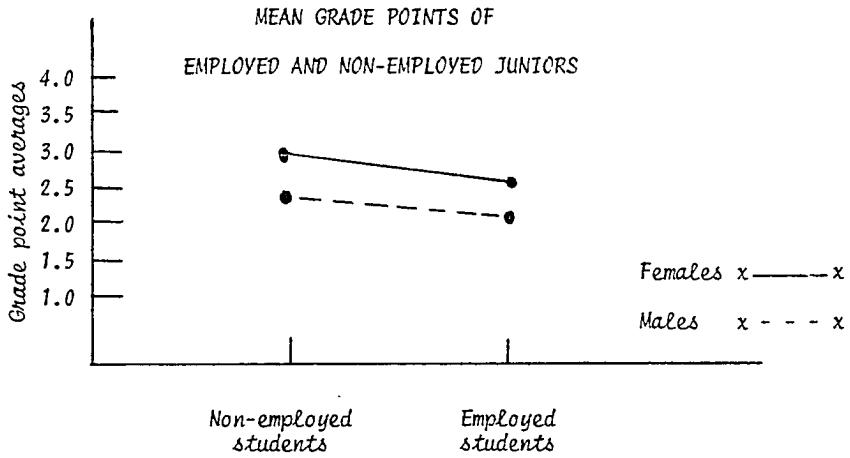


Figure 1. Mean grades of females and males as a function of employment status.

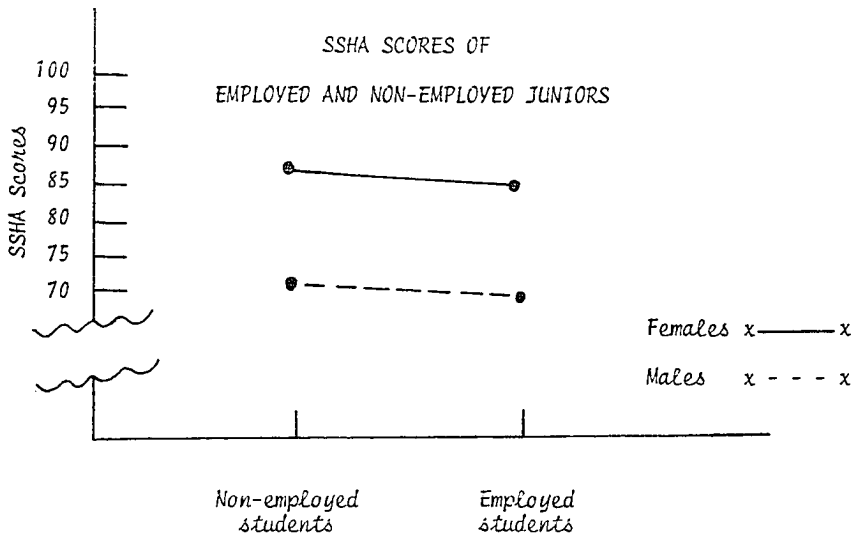


Figure 2. SSHA scores of females and males as a function of employment status.

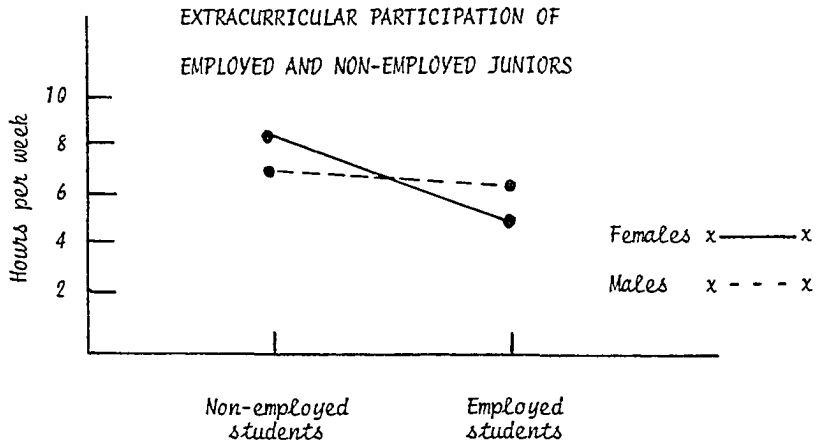


Figure 3. Extracurricular participation of females and males as a function of employment status.

females and males. The mean scores on the SSHA for the non-employed and employed females are 88.51 and 86.40, respectively; mean scores for the non-employed and employed males are 72.49 and 71.65, respectively. Student employment did not significantly affect SSHA scores. However, the gender effect was significant, with females showing higher SSHA scores.

In Figure 3 one can compare the extracurricular participation and employment status for females and males. Employed students participated significantly less in extracurricular activities than non-employed

students. Non-employed females participated an average of 8.78 hours per week; employed females report only 5.86 hours per week. The corresponding figures for the non-employed and employed males are 7.82 and 6.55. It is interesting to note that employed males reported more hours per week (6.55) of extracurricular participation per week than employed females (5.86). However, the interaction was not statistically significant. Berryman and Schneider's study (1982) also revealed a decrease in extracurricular activities as students worked more hours per week.

Hypothesis 4. There is no significant difference in plans for education beyond high school between employed and non-employed high school juniors.

The chi-square test, which is appropriate for examining frequency data for categorical variables, revealed there is no significant difference between employed and non-employed students regarding their plans to continue education beyond high school (Table 8). The chi-square value is 0.004, and the probability is 0.9476. With one degree of freedom, a chi-square score of 3.84 or greater is needed to reject the null hypothesis at the .05 level of significance. Therefore, the hypothesis of no significant difference between the

two groups was accepted.

Table 9 shows no significant difference between employed and non-employed female students regarding their educational plans. The chi-square score with one degree of freedom is 0.017, and the probability is 0.8966. Similar results are reported for the male students (Table 10). The chi-square score is 0.015, and the probability is 0.9023; these differences were not significant.

Hypothesis 5. There is no significant relationship between the number of hours worked per week and the academic performance (measured by grade point average for the first semester of the junior year) of high school juniors.

The regression analysis was used to test the relationship between the number of hours worked per week and the academic performance of these junior students. According to Kazmier (1979), the principal assumptions associated with linear regression analysis are:

1. The relationship is linear.
2. The dependent variable is a random variable.
3. There is an assumption of homoscedasticity.

Kazmier further reasons: "Regression analysis is concerned with developing the linear regression equation by which the value of a dependent variable Y can be estimated given an independent variable X." (p. 281)

The purpose of the model used in this study is to allow one to make reasonably intelligent predictions concerning the dependent variable Y (a student's grade point average) based on the independent variable X (number of hours worked per week). Such a prediction assumes that the grade point average might be a function of the number of hours a student works per week. Statisticians frequently make regression predictions for individuals based on trends revealed in previous studies of samples of similar individuals.

In the present study, the basic components of the simple (bivariate) regression equation were determined from the sample data where scores for both X and Y are available. Data pertaining to the junior students at Moore High School should allow one to make predictions concerning the grade point averages of similar students in the future. In the regression equation (Table 11), a is the value of Y (predicted grade point average) where the regression line intercepts or crosses the ordinate of the Y variable when X (number of hours worked per week) is 0.

Typically, as the number of hours a student works per week increases, one might anticipate a decreased

value of Y (grade point average). The value of b (Table 11) is determined by the angle between the X axis and the regression line on a graph; thus b is called the slope of the regression line or the regression coefficient.

Both employed and non-employed students were used in testing Hypothesis 5. The number of work hours for the non-employed students was listed as 0. When all 477 students in the study sample were included, the minimum and maximum grade point averages were 0.61 and 4.00, respectively. For testing Hypotheses 5 and 6, data were sorted to include only those students whose grade point averages were between 1.0 and 3.9 to reduce the non-linear relationships caused by the upper and lower limits of the grade points. This enables one to examine more accurately the intermediate level students using linear relationships.

When testing the relationship between number of hours worked per week and grade point average, the researcher found the relationship to be very slightly negative (-0.0023), but not significant at the .05 level of significance (Table 11). There was not enough evidence to show that there is a significant relationship between number of hours worked per week and

grade point average. Therefore, the null hypothesis was accepted.

To illustrate the impact of working on grade point average, it is helpful to substitute actual figures into the model. As shown in Table 11, the parameter estimate is 2.7054, and the regression coefficient is -0.0023. By using the regression model and substituting 10 hours of work per week, one can compute Y predicted (a student's grade point average).

$$\text{Predicted GPA} = 2.7054 - .0023(10) = 2.6824$$

The model predicts a reduction of .023 (.0023 $\times$ 10), on the average, due to working 10 hours per week. The relationship between the number of hours worked per week and current grade point average is essentially zero, so the effect of working 10 hours per week is nil. If the relationship had been greater, the 10 hours per week substitution would relate to a greater decrement in GPA.

A student who goes to work for approximately 10 hours per week might find that his grade point average would decrease slightly, but perhaps the other advantages of working would compensate for this small decrease in grade point average. Many students

reported they had gained experience, job skills, and interpersonal skills in dealing with others as a result of their part-time jobs.

Hypothesis 6. There is no significant relationship between academic performance (measured by grade point average for the first semester of the junior year) of high school juniors and each of the following: Survey of Study Habits and Attitudes (SSHA) scores, number of hours worked per week, Stanford Achievement Test level, extracurricular participation per week, and total semesters a student has been working.

The accuracy of predictions using the simple regression analysis (Hypothesis 5) can be increased by combining three, four, or even more predictors in a multiple regression analysis (Popham and Sirotnik, 1973). Popham and Sirotnik discussed the selection of appropriate predictor variables to be used in a situation in which academic achievement is the criterion variable and performance on a group intelligence test is the predictor. They suggested using

. . . a second predictor which was strongly related to the criterion but not strongly related to the first predictor. In such a case, a student's performance on the Brown-Holtzman Survey of Study Habits and Attitudes might be a suitable second predictor, for it purportedly measures non-intellectual factors which are associated with academic achievement. (p. 106)

Question 9 on the questionnaire on student

employment (See Appendix A) asks the students to indicate the number of semesters they have been employed in a regular part-time job. The researcher believed that the number of semesters a student had been working might be a factor that would affect academic performance. A student's previous level of academic achievement (represented by his standing on the Stanford Achievement Test) was selected as an additional predictor variable.

Thus, five predictor variables were selected in testing Hypothesis 6 using the multiple regression analysis. They are: (1) SSHA scores, (2) number of hours working per week (WORK HOURS), (3) Stanford Achievement Test scores (SAT SCORE), (4) extracurricular participation (EXTRACUR), and (5) total semesters working (TSEMWORK). The criterion variable is academic performance (represented by grade point average). Partial results of the multiple regression analysis are shown in Table 12.

The predictors were entered simultaneously; this means that each estimate of each variable's effect controls for all the other predictors in the equation. They were not entered stepwise.

The model for a multiple regression equation is

similar to the simple single-predictor variable equation. Using five predictor variables, the model takes the following form:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 \quad (4.1)$$

As explained previously, Y is the predicted criterion score (grade point average); a is a constant; b_1 represents the regression coefficient for SSHA scores; b_2 is the regression coefficient for number of hours worked per week (WORK HOURS); b_3 is the regression coefficient for the Stanford Achievement Test scores (SAT SCORE); b_4 is the regression coefficient for extracurricular involvement (EXTRACUR); and b_5 is the regression coefficient for total semesters working (TSEMWORK).

In multiple regression analysis, each regression coefficient included in the regression equation is called a partial regression coefficient because the value of each coefficient is determined by controlling for the other independent variables also included in the regression equation. The overall significance of the regression model can be determined by use of an overall F-ratio (Kazmier). Table 12 indicates an F value of 26.30 with a probability of .0001, which is

statistically significant. However, it is important to keep in mind that this F-ratio only tests the overall model and not individual variable predictions.

Therefore, the null hypothesis regarding prediction of GPA by the independent variables must be rejected because there is significant prediction of GPA by SSHA scores, SAT scores, and hours of extracurricular participation per week (total semesters worked was only marginally significant).

Table 13 shows the intercorrelations among the variables used in the multiple regression analysis (Table 12). Five of the 15 intercorrelations showed statistically significant positive relationships. GPA and SSHA scores are significantly and positively correlated ($p = 0.0001$), indicating that students who had high scores on the SSHA also tended to have high grades in school. As expected, GPA and Stanford Achievement Test level are positively correlated; the correlation is statistically significant ($p = 0.0001$), which also indicates that students who do well on the Stanford Achievement Test have high grade point averages.

Students who make high grades tend to be more involved in extracurricular activities, as the correlation was positive and significant ($p = 0.0004$).

Berryman and Schneider (1982) also found that students with higher grades devoted more time to school activities than students with relatively lower grades.

There was a positive correlation that was statistically significant ($p = 0.0001$) between SSHA scores and Stanford Achievement Test Scores. Also, the number of hours worked per week was correlated positively and significantly ($p = 0.0001$) with the total semesters a student had been working; which might indicate that as students worked over a period of time, they tended to work more hours per week.

The number of hours a student worked per week was negatively correlated with GPA, but the correlation was not significant ($p = 0.4333$). The effect of working, as discussed previously, did not appear to relate negatively to student performance. Additionally, the total number of semesters a student had been working was negatively correlated with GPA, but the correlation was not quite significant ($p = 0.0626$) at the .05 level.

Another low positive (not significant with $p = 0.4118$) relationship was revealed between Stanford Achievement Test scores and number of hours working per week. The Stanford Achievement Test scores were posi-

tively, but not significantly ($p = 0.1001$), correlated with extracurricular involvement. The achievement test scores also correlated positively with the total semesters a student had been working, but the correlation was not significant ($p = 0.1693$).

The total number of semesters students had worked was related to their participation in school activities. The correlation was negative but not quite significant ($p = 0.0592$) at the .05 level. Similar results were obtained by Berryman and Schneider (1982), who suggested that declining school participation with age and increasing time devoted to work may be responsible for some students beginning to withdraw from the educational process as they approach graduation.

SSHA scores were only correlated very slightly positively with total semesters working; the correlation was not significant ($p = .5093$). As one might expect, the number of hours worked per week was related to the number of hours per week available for extracurricular activities. The correlation was negative and significant ($p = 0.0091$). However, Gottfredson (1984) found workers are more involved in extracurricular activities than are nonworkers.

Another slightly negative (not statistically

significant, $p = 0.6140$) correlation existed between SSHA scores and number of hours worked per week. Finally, participation in extracurricular activities was positively correlated with SSHA scores, but the correlation was not significant ($p = 0.1005$).

The regression effect associated with any one independent variable can also be tested. Using Student's t -distribution, one can observe the significant positive relationship between SSHA scores and academic performance (while controlling for the other predictors). The t of 6.607 was significant ($p = 0.0001$). A very low positive relationship was found between number of hours worked per week and academic performance. However, the t -score of 0.872 was not significant. (See Table 12.)

Student performance (Low, Average, or High), as coded 1, 2, and 3, on the Stanford Achievement Test was positively related to academic performance with a t -score of 6.587 that was very significant ($p = 0.0001$). This means that junior year GPA can be predicted from ninth grade SAT scores when controlling for the other independent variables. A positive relationship was revealed between extracurricular participation and aca-

ademic performance (t-score of 2.765) that was also significant ($p = 0.0059$). The only slightly negative relationship revealed in the regression analysis was between total semesters working and academic performance. The t-value was -1.875, which is marginally significant ($p = 0.0615$).

Although these analyses give indications of the qualitative relationship among the various predictor variables and student performance, the overall R^2 (.2338) is relatively low for a predictive model. Since it was the purpose of this research to examine the influence of student employment on academic performance, no attempt has been made to identify additional factors which might increase this R^2 value (family socioeconomic status is one measure often shown to relate to student performance).

While it is possible to show the relationship between dependent and independent variables through the use of the multiple regression analysis, one cannot establish causality since the methods are still relational.

Data from Employment Questionnaire

Appendix A contains a copy of the Questionnaire on

Part-time Employment. Appendix B contains tables of frequencies and percentages concerning information collected on the employment questionnaire. Of course, not all students responded to all questionnaire items. Students were instructed to indicate N/A for Not Applicable if the questions did not apply to them. Some did, in fact, respond by marking N/A; others simply skipped some questions. Questions 17-25 were intended for employed students only.

Of the 477 students responding to Question 4, which asked whether students resided in a single parent household, 84 percent checked No and almost 16 percent checked Yes (Appendix, B, Table 14).

Students responding to Question 5 revealed that over 68 percent live in households where both parents work outside the home (Appendix B, Table 15). Almost two percent of the students checked N/A for Question 6. Other responses to level of father's education were: Did not complete high school, over 10 percent; Completed high school, over 42 percent; Completed at least two years of college, 19 percent; and Graduated from college, almost 26 percent. (See Appendix B, Table 16)

Fewer than one percent of the students checked N/A

to the question concerning the level of mother's education. Responses included: Did not complete high school, 12 percent; Completed high school, 56 percent; Completed at least two years of college, almost 19 percent; and Graduated from college, 12 percent. (Appendix B, Table 17)

Generally, only students who had never worked responded to Question 8; however, 183 students checked N/A, and many others simply omitted a response. The frequency table (Appendix B, Table 18) reveals multiple responses with the largest single response (over 11 percent) being given to Option G, Don't have time because of schoolwork and activities. "Other" reasons for not working included such responses as Need time to practice musical instrument, Most people don't give teenagers a chance, and Don't want a job.

Question 9 referred to the total semesters a student had worked even though the student might not be presently working. Some students simply did not respond, which could indicate they are not working now and have never worked previously. Approximately 12 percent of the students checked N/A. The largest single response (almost 17 percent) appeared for

Options E and F, indicating that more students were working during both semesters of their junior year than at any other time (Appendix B, Table 19).

Of the 477 students who responded to Question 10 regarding automobiles, an overwhelming 80 percent reported that they own or have for their exclusive use an automobile (Appendix B, Table 20). Not all of the students answered Question 11 concerning car expenses. The largest single response (25 percent) indicated the students paid or were paying more than half of the purchase price of the car and expenses for insurance, gas/oil, and tires. (See Appendix B, Table 21)

Of the students responding to Question 12, over 60 percent reported they have a savings account; multiple responses were given to other categories revealing students often have both checking and savings accounts, while a few students had, in addition, a credit card or perhaps access to a credit card. (See Appendix B, Table 22) Although a minor generally does not have the capacity to enter into a contract, a minor's parent may cosign on the contract for the credit card; the contract would then be enforceable against the parent.

Question 13, asking about number of hours of participation in extracurricular activities per week, was

addressed in testing Hypothesis 2, which revealed a significant difference in the extent of participation in extracurricular activities between employed and non-employed students (Table 7). A few responses were inordinately high (50 hours, 70 hours, and 86 hours) suggesting these students did not understand the question, "Approximately how many HOURS PER WEEK have you spent participating in any of the following activities?" When the computer averaged the data for average hours per week for employed versus unemployed students, an arbitrary cutoff was made at a maximum of 40 hours, as it was felt that anything above 40 hours per week was unreasonable. The complete frequency table, however, appears in Appendix B (Table 23).

No clear-cut pattern of responses appeared for Question 14 concerning career or vocational plans. Multiple responses suggested students were considering several career paths or had not decided on a particular vocation. The largest single response occurred when 20 percent of the students indicated they were considering careers in business (Appendix B, Table 24).

The data for Hypothesis 4, which revealed no significant difference in plans for education beyond

high school between employed and non-employed students, are shown in Table 8. A frequency table for the raw data appears in Appendix B, Table 25.

Frequencies for employed and non-employed students are shown in Appendix B, Table 26. Almost 59 percent of the juniors are currently employed; slightly over 41 percent are not employed.

Questions 17 through 25 asked for responses from only those students who were employed 10 or more hours per week. Of the 281 students responding to number of hours worked per week, the responses were: 10-15 hours, 21 percent; 16-20 hours, 27 percent; 21-25 hours, 26 percent; 26-30 hours, 15 percent; and over 30 hours, almost 10 percent (Appendix B, Table 27).

Question 18 pertained to the type of part-time job held. Students were asked to mark more than one response if they held more than one job. Of the students responding to this question, almost 36 percent work in a department store, grocery, or other retail store; slightly over 30 percent work in a restaurant. Just over 19 percent responded to the "Other" category indicating they were working with electronic inserts, restoring cars and selling them, and selling cars and parts. (See Appendix B, Table 28)

Over 16 percent of the students responding to how long they plan to continue their present job (Question 19) answered with No longer than the end of the school year. Other responses include: Through next summer, 21 percent; Beyond next summer, 34 percent; and "Other," almost 28 percent. (See Appendix B, Table 29.)

Thirty-six of the 276 students responding to Question 20 reported being employed by their parents or other relatives (Appendix B, Table 30). Thirty-six students also reported (Question 21) that they were paid by parents or other relatives (Appendix B, Table 31). However, only 154 students answered Question 21, while 276 responded to Question 20.

When asked what they felt they had gained from a part-time job, students gave multiple responses. The largest set of responses was made when 11 percent of the students checked Options A, B, C, D, F, and G indicating they had acquired job experience, job skills, money for personal expenses, money for school expenses, interpersonal skills in dealing with others, and a sense of personal accomplishment. In addition, many other students checked the same options in varying pat-

terns, again indicating many positive benefits associated with work experience. Surprisingly, only 73 of the students (27 percent) reported they were using the income from their jobs for future educational costs. A few students checked all options and added comments in the "Other" category such as money for future expenses (car, trips), information about different jobs, independence, and responsibility. (See Appendix B, Table 32)

Question 23 required students to check one or more statements that reflected their feelings concerning their jobs. Option E, Working has been a positive experience for me, was chosen by almost 47 percent of the students. Many other students checked the same response, together with one or more additional responses. Only 88 students checked Working has probably hurt my grades. (See Appendix B, Table 33)

Two hundred seventy-three young people responded to Question 24, "Have you ever felt a need for a stimulant (coffee, No-Doz, etc.) to help you get started in the morning or to keep you going throughout the day?" Over 73 percent checked No; almost 27 percent responded Yes. Of the students reporting they sometimes felt a need for a stimulant, some wrote in the margins such

varied items as Coke, Coffee, or Pepsi. (See Appendix B, Table 34) A Yes response only reveals that a student has felt a need for a stimulant and does not necessarily indicate he has used such.

Students were asked to respond to Question 25 by checking Very Satisfactory, Satisfactory, Unsatisfactory, Very Unsatisfactory or "Other" regarding their attitudes toward their part-time jobs. Over 86 percent of the students selected Very Satisfactory or Satisfactory to describe their attitudes toward work. Only seven students selected Very Unsatisfactory to express how they looked upon their employment situations. (See Appendix B, Table 35)

Summary

In this chapter, the results of the study comparing employed and non-employed high school juniors were detailed. Six null hypotheses were tested, and the statistics used to analyze the data included: two-way analysis of variance, chi-square tests, regression analysis, multiple regression analysis, and descriptive statistics. The information collected on the student employment questionnaire was summarized; frequencies and percentages were computed to describe thoroughly

the findings. A summary of the findings, conclusions, and recommendations will be presented in Chapter V.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Chapter V contains a summation of this research, including the background of the problem, significance of the study, research procedures, analysis of the data, and the findings of the study. Conclusions for the study are based upon the findings. Finally, recommendations for utilizing the study are discussed.

Summary

Research on adolescents has frequently ignored the workplace, a setting in which young people spend significant amounts of their time. One of the most persistent myths about part-time employment of high school students, according to Hammond (1971), is that these students hold jobs to support cars and the resultant curtailment of study time adversely affects their scholastic achievement and attitudes toward school.

Today, teenagers no longer enter the workplace primarily because working is an economic necessity.

Increasingly, the youth are opting to work voluntarily--and for a variety of reasons; concomitantly, they report a number of positive benefits.

Criticism of the current educational system is rampant in the United States. When the National Commission on Excellence in Education published its report in 1983, the public and many educators were shocked by such revelations as: (1) The College Board's Scholastic Aptitude Tests reveal a virtually unbroken decline from 1963 to 1980; (2) Science achievement scores of U.S. 17-year-olds declined sharply in 1969, 1973, and 1977; (3) Many 17-year-olds cannot write a persuasive essay or solve mathematics problems involving several steps; and (4) American students compare unfavorably with students of other industrialized countries.

Many parents, educators, and school administrators are concerned that the youth of America are not taking the high school curriculum seriously. Colleges and universities are forced to offer many remedial courses in math and science because the young people come from high schools less well prepared than in earlier years. Teenagers are devoting larger and larger amounts of

time to part-time employment while in high school, thus perhaps decreasing the time available for serious concentration on academics. Does this part-time employment detract from a teenager's high school experience or are there gains involved which offset the disadvantages?

Statement of the Problem

This research represents an attempt to find answers to some of the problems involved when, according to some estimates, as many as two out of three high school students are members of the current work force. The principal thrust of this study was to determine if employed students actually perform at a lower level scholastically than do the non-employed students. Students' study habits and attitudes were examined to determine the extent to which they affect the academic performance of teenagers.

Significance of the Study

Parents, educators, and school administrators should benefit from the information concerning employment habits of today's young people. When advising students regarding part-time employment while in high school, school counselors, too, should be aware

of the pros and cons involved when teenagers assume the additional responsibilities that working entails.

Related Studies

Most of the research on teenage employment has been concerned with the effects of working on academic performance (often measured by students' grade point average). Greenberger and Steinberg (1980) investigated part-time employment among 10th- and 11th-grade students in California and found that holding a job sometimes promotes a cynical attitude toward the worth of work and its satisfactions.

Berryman and Schneider (1982) concluded that the number of hours worked per week was not significantly related to grades earned in school even for those few students who worked more than 40 hours per week.

Hammond (1968) could not substantiate his premise that part-time employment is directly detrimental to scholastic performance. He conducted a second study (1971) and concluded that part-time jobs often provide meaningful experiences for students, especially those who want to free themselves from dependency on their parents. Hammond also suggested that the high school curriculum offers little that is applicable to adult

life.

One cannot conclude that working during the high school years is detrimental. Young people often admit they gain a feeling of satisfaction and a sense of responsibility even in jobs that require only menial ability.

Research Procedures

The sample in this study consisted of 477 juniors in attendance at a large high school in the midwestern United States. A questionnaire on student employment was administered to the students by their junior English teachers. In addition, these junior students completed Brown and Holtzman's Survey of Study Habits and Attitudes (SSHA) approximately three weeks later. The researcher hand scored the SSHA tests and tabulated the data from the employment questionnaires for computer processing.

Students' scores on the Stanford Achievement Test (on file in seven counselors' offices at the high school) were recorded for use as indicators of past achievement, since the tests were completed while the students were in the ninth grade. Grade point averages (for the first semester of the junior year) were

obtained for the juniors in the sample.

The data were processed at the computer center at the University of Oklahoma using the Statistical Analysis System (SAS). In addition to descriptive statistics, the programs included analysis of variance, chi-square tests, regression analysis, and multiple regression analysis.

Findings

Two hundred thirty-seven females and 240 males were represented in the study. Employed females made up 58.6 percent of the females, and 59.2 percent of the males were employed at least 10 hours per week.

Demographic data show that only 16 percent of the students in the study live in single-parent households; 68 percent come from homes where both parents are employed. Twenty-six percent of the students' fathers and only 12 percent of their mothers graduated from college. Eighty percent of the students reported they own or have for their exclusive use an automobile. Almost 82 percent indicated they have a savings account; 22 percent have checking accounts, and over 11 percent have access to a credit card.

Employed and non-employed students did not differ

significantly in their study habits and attitudes (as measured by Brown and Holtzman's Survey of Study Habits and Attitudes). Females scored considerably higher on the SSHA than did the males.

Employed students participated significantly less in extracurricular activities than non-employed students. Non-employed females were more involved in extracurricular pursuits than non-employed males; surprisingly, the data revealed that employed males participated more hours per week in extracurricular activities than did the employed females.

The researcher could find no significant difference between non-employed and employed students regarding their plans to continue education beyond high school.

The majority of working students do not rely on stimulants (coffee, No-Doz, etc.) as a crutch to keep them going throughout the day. As this question was directed to the employed group only, only 273 young people responded with 73 percent answering No to the question asking if they had ever felt the need for a stimulant.

The number of hours worked per week did not signi-

ificantly affect the grade point average of these juniors. However, the null hypothesis regarding prediction of GPA by the five independent variables, Survey of Study Habits and Attitudes scores, number of hours worked per week, Stanford Achievement Test level, extracurricular involvement, and total semesters working, was rejected. Data revealed there is significant prediction of GPA by SSHA scores, SAT level, and hours of extracurricular participation per week. The total number of semesters worked was only marginally significant.

Conclusions

The participants in this study included 281 employed and 196 non-employed junior students at a large high school in Oklahoma. Based upon their responses, the following conclusions were made:

1. Academic achievement (measured by grade point average) is not significantly affected by part-time employment of high school juniors. However, non-employed juniors' grade point averages were higher than the grade point averages of the employed juniors, though the difference was not even marginally significant at the .05 level.

2. In this study, the number of hours worked per week is not significantly related to the academic performance of high school juniors. In general, the grade point averages of the students who scored Low on the Stanford Achievement Tests in the ninth grade were lower than those of the students at the Average and High levels. In addition, when students were placed into Low, Average, and High categories, according to their scores on the SAT, there was no significant change (plotted graphically) in the grade point averages of the students in the Average and High groups when the number of work hours per week increased.

Surprisingly, however, the students who scored Low on the SAT experienced an increase in their grade point averages as the number of work hours per week increased. One must be careful when generalizing, however, because only a few students fell into this last category. Of course, one reasonable explanation could be that as the students worked longer hours, they recognized a need to organize and complete study requirements more efficiently.

3. Data suggest that study habits and attitudes are not affected by part-time employment of juniors. The study habits and attitudes, as reflected by SSHA

scores, of the employed students were not significantly different than those of the non-employed students.

4. In these analyses, part-time employment affects the number of hours per week students participate in extracurricular activities. The mean hours of extracurricular participation per week reported by the employed students is 6.2; non-employed students participate an average of 8.2 hours per week. The difference was statistically significant.

5. Plans for education beyond high school are not significantly affected by working part-time. Eighty-seven percent of the employed students and 86.8 percent of non-employed students indicated plans to continue with some type of education beyond high school.

6. According to the survey responses, part-time employment among teenagers does not contribute to increased cynicism about the value of work. Unlike the Greenberger and Steinberg study (1980), this study did not reveal that part-time employment fosters negative attitudes toward work. On the contrary, over 86 percent of the employed students in this study selected Very Satisfactory or Satisfactory to describe their attitudes toward work. Only seven students chose Very

Unsatisfactory as the way they viewed their work situations. On Question 23 of the employment questionnaire (Appendix A), the largest set of responses (43.9 percent) was given for the statement, Working has been a positive experience for me. Many other students checked the same response, in conjunction with other statements revealing their feelings toward their jobs.

7. Study habits and attitudes of high school juniors are related to academic performance (as measured by grade point average). In testing Hypothesis 6, the researcher found a positive relationship between SSHA scores and academic performance. The t-score of 6.607 was quite significant ($p = 0.0001$).

Implications

The findings from this study clearly do not support the proposition that working while in high school is indeed detrimental. As this research was conducted among students in a white, middle-class neighborhood in Oklahoma, similar results might not be obtained elsewhere. In all likelihood, however, there are many similar educational settings throughout the midwestern portion of the United States.

The students participating in this survey tended

to view their part-time employment positively. Many students admitted they had gained job skills, experience, knowledge of a variety of jobs, a sense of accomplishment, a feeling of responsibility, and money for personal and school expenses. These findings corroborated those of Hammond (1971) who concluded: "One must suspect, therefore, that it was enjoyment of working, meeting people, earning their own money, and being part of the adult world that gave them job satisfaction."

The researcher believes students should be made aware of research that has been conducted on the merits of part-time employment. Teachers and counselors should become knowledgeable concerning the pros and cons of student employment and encourage young people to consider carefully the benefits and costs involved when they assume responsibilities that may have serious implications.

Schools should help students to use their work experience to enhance their education. Teachers and counselors should emphasize the positive values of work (learning about various occupations, gaining practical knowledge, acquiring money management skills, and achieving a sense of responsibility). Teachers of

business, economics, history, and journalism, for instance, should look for opportunities to relate educational concepts, as well as the content of specific courses, to career objectives.

The researcher does not believe teachers should lower classroom standards or homework requirements because of the increasing numbers of students who work. Educational excellence is receiving a new emphasis, and more rigorous commitment will be required of students, as well as teachers.

Schools should encourage students to improve study habits and organize their time more efficiently. In this study, the students who scored higher on the Survey of Study Habits and Attitudes test also had higher grade point averages. Teachers and administrators should be alert for opportunities to present short seminar-type programs for students on improving study habits and organizational skills.

Recommendations

Additional research should focus on motivational forces impelling students to work part-time during the teen years. It is entirely possible that employment itself is a motivating factor among students or that

employment is evidence of high motivation.

A future research study should focus on the long-term effects of student employment during the high school years. A follow-up study on students several years after high school to discern their perceptions of the impact of teenage employment should prove beneficial.

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APPENDIX A

QUESTIONNAIRE ON PART-TIME EMPLOYMENT

INSTRUCTIONS: Please answer as accurately as you can all questions that apply to you. IN THE MARGIN AT THE LEFT, PLEASE INDICATE N/A FOR NOT APPLICABLE IF THE QUESTION DOES NOT APPLY TO YOU. All replies will be kept confidential. Reports prepared from this questionnaire will be in the form of total numbers and percentages, rather than individual answers.

1. Name _____

Last
First
Middle
2. Age (as of April 1, 1984) _____
3. Sex: _____ Male _____ Female
4. Do you live in a single-parent household? _____ Yes _____ No
5. Do you live in a household where both parents work outside the home?
 _____ Yes _____ No
6. How much education has your father completed? *(Please check)*
 _____ A. Did not complete high school
 _____ B. Completed high school
 _____ C. Completed at least two years of college
 _____ D. Graduated from college
7. How much education has your mother completed? *(Please check)*
 _____ A. Did not complete high school
 _____ B. Completed high school
 _____ C. Completed at least two years of college
 _____ D. Graduated from college
8. If you have NEVER held a part-time or full-time job, what are your reasons for not working?
 _____ A. Tried, but couldn't find a job
 _____ B. Don't know how to find a job
 _____ C. Don't have the time because of home responsibilities
 _____ D. Not interested in available jobs
 _____ E. Don't need the money
 _____ F. Parents disapproved
 _____ G. Don't have the time because of schoolwork and activities
 _____ H. Most jobs don't pay well
 _____ I. Other. Please list. _____

9. If you HAVE worked previously, WHEN were you employed in a regular part-time job for more than half of the weeks of the semester? *(Please check all of the semesters that you worked.)*
- _____ A. First semester, freshman year
 _____ B. Second semester, freshman year
 _____ C. First semester, sophomore year
 _____ D. Second semester, sophomore year
 _____ E. First semester, junior year
 _____ F. Second semester, junior year
10. Do you own or have for your exclusive use an automobile?
 _____ Yes _____ No
11. If so, did you pay or are you paying more than half of the following?
- _____ A. Purchase price of car
 _____ B. Insurance expense
 _____ C. Gas/oil expense
 _____ D. Tire expense
12. At the present time do you have one or more of the following? *(Please check all that apply.)*
- _____ A. Checking account
 _____ B. Savings account
 _____ C. Credit card
13. Approximately how many HOURS PER WEEK have you spent participating in any of the following extracurricular activities during the current school year? *(Please list number of hours for all activities that apply to you.)*
- No. of Hours
- _____ A. Leadership and academics *(Student council, honor society, class officer, etc.)*
 _____ B. Performance *(Band, vocal music, drama, etc.)*
 _____ C. Service *(FBLA, FFA, FHA, DECA, etc.)*
 _____ D. Sports
14. What career or vocational area do you plan to enter when you complete your education?
- _____ A. Agriculture
 _____ B. The Arts *(art, drama, film, literature, music, etc.)*
 _____ C. Business *(accounting, banking, secretarial, etc.)*
 _____ D. Education *(teaching)*
 _____ E. Engineering
 _____ F. Government

- _____ G. Law
- _____ H. Medicine
- _____ I. Religion
- _____ J. Trades and Industries (*carpenters, electricians, factory workers, plumbers, etc.*)
- _____ K. Other. Please specify. _____

15. Do you intend to continue with some form of formal education after you graduate from high school?
 _____ Yes _____ No
16. Are you at the present time employed in a part-time job at least 10 HOURS PER WEEK? (*NOTE: DO NOT include casual or irregular employment such as an occasional babysitting or lawnmowing job that does not total at least 10 HOURS PER WEEK. DO include work in a business operated by your parents if you work regular hours. DO include newspaper routes.*)
 _____ Yes _____ No

**IF YOU CHECKED NO FOR QUESTION NO. 16,
PLEASE OMIT THE REMAINDER OF THE QUESTIONNAIRE.**

17. On the average, how many hours each week are you spending in part-time work this semester excluding vacations?
 _____ A. 10 - 15 hours
 _____ B. 16 - 20 hours
 _____ C. 21 - 25 hours
 _____ D. 26 - 30 hours
 _____ E. More than 30 hours
18. What type of job do you have? (*If you have two or more jobs, mark each separately.*)
 _____ A. Department store, grocery, or other retail store
 _____ B. Gas station or garage
 _____ C. Secretarial, clerical, or business office
 _____ D. Restaurant (*including dishwashing or busboy job*)
 _____ E. Greenhouse, nursery, or farm
 _____ G. Recreational establishment (*bowling lanes, theatre, club, etc.*)
 _____ H. Music or music instruction
 _____ I. Other. Please specify. _____

19. How long do you expect to continue in your present job?
_____ A. No longer than the end of the school year
_____ B. Through next summer
_____ C. Probably beyond next summer
_____ D. Other. Please specify. _____
20. Are you employed at the present time by your parents or other relatives?
_____ Yes _____ No
21. If employed by your parents or other relatives, are you paid?
_____ Yes _____ No
22. What do you feel you have gained from part-time employment?
_____ A. Job experience
_____ B. Job skills
_____ C. Money for personal expenses
_____ D. Money for school expenses
_____ E. Money for future educational costs
_____ F. Interpersonal skills in dealing with others
_____ G. A personal sense of accomplishment
_____ H. Other. Please specify. _____
23. Do you feel that your part-time job has affected your school life in any of the following ways? *(Please check all statements that reflect your feelings.)*
_____ A. Working has probably hurt my grades.
_____ B. Working kept me from participating in extracurricular activities.
_____ C. My part-time job didn't allow me time to "really become a part of the school."
_____ D. Working has prevented me from enjoying school.
_____ E. Working has been a positive experience for me.
24. Have you ever felt a need for a stimulant (coffee, No-Doz, etc.) to help you get started in the morning or to keep you going throughout the day?
_____ Yes _____ No
25. What are your feelings toward your part-time job?
_____ A. Very satisfactory
_____ B. Satisfactory
_____ C. Unsatisfactory
_____ D. Very unsatisfactory
_____ E. Other. Please specify. _____

APPENDIX B

TABLE 14
 PERCENTAGE OF STUDENTS LIVING
 IN SINGLE-PARENT HOUSEHOLD
 N = 477

Single-Parent Household	Frequency	Cum Freq	Percent	Cum Percent
No	401	401	84.067	84.067
Yes	75	476	15.723	99.790
N/A	1	477	0.210	100.000

TABLE 15
 PERCENTAGE OF STUDENTS
 WITH BOTH PARENTS EMPLOYED
 N = 470

Parents Employed	Frequency	Cum Freq	Percent	Cum Percent
No	149	149	31.702	31.702
Yes	320	469	68.085	99.787
N/A	1	470	0.213	100.000

TABLE 16
EDUCATIONAL LEVEL OF STUDENTS' FATHERS

N = 472

Q6*	Frequency	Cum Freq	Percent	Cum Percent
Did not complete high school	51	51	10.805	10.805
Completed high school	202	253	42.797	53.602
Two years of college	90	343	19.068	72.669
Graduated from college	122	465	25.847	98.517
N/A	7	472	1.483	100.000

*See Appendix A, Question 6

TABLE 17
EDUCATIONAL LEVEL OF STUDENTS' MOTHERS

N = 474

Q7*	Frequency	Cum Freq	Percent	Cum Percent
Did not complete high school	57	57	12.025	12.025
Completed high school	267	324	56.329	68.354
Two years of college	90	414	18.987	87.342
Graduated from college	58	472	12.236	99.578
N/A	2	474	0.422	100.000

*See Appendix A, Question 7

TABLE 18
REASONS FOR NOT WORKING

N = 290

Q8*	Frequency	Cum Freq	Percent	Cum Percent
A	12	12	4.138	4.138
ABCG	1	13	0.345	4.483
ABG	1	14	0.345	4.828
ADI	1	15	0.345	5.172
AG	4	19	1.379	6.552
AI	2	21	0.690	7.241
BC	1	22	0.345	7.586
C	4	26	1.379	8.966
CG	3	29	1.034	10.000
CGI	1	30	0.345	10.345
D	5	35	1.724	12.069
DG	2	37	0.690	12.759
E	8	45	2.759	15.517
EFG	1	46	0.345	15.862
EFGI	1	47	0.345	16.207
EG	4	51	1.379	17.586
EGI	1	52	0.345	17.931
F	1	53	0.345	18.276
FG	2	55	0.690	18.966
FGH	1	56	0.345	19.310
FGI	1	57	0.345	19.655
G	34	91	11.724	31.379
GI	1	92	0.345	31.724
HI	1	93	0.345	32.069
I	14	107	4.828	36.897
N/A	183	290	63.103	100.000

-
- *A. Tried, but couldn't find a job
 B. Don't know how to find a job
 C. Don't have the time because of home responsibilities
 D. Not interested in available jobs
 E. Don't need the money
 F. Parents disapproved
 G. Don't have the time because of schoolwork and activities
 H. Most jobs don't pay well
 I. Other

TABLE 19
TOTAL NUMBER OF SEMESTERS EMPLOYED

N = 397

Q9*	Frequency	Cum Freq	Percent	Cum Percent
A	9	9	2.267	2.267
AB	1	10	0.252	2.519
ABCD	3	13	0.756	3.275
ABCDE	5	18	1.259	4.534
ABCDEF	27	45	6.801	11.335
ABCDF	2	47	0.504	11.839
ABCF	1	48	0.252	12.091
ABDE	1	49	0.252	12.343
ABEF	2	51	0.504	12.846
ABF	2	53	0.504	13.350
ACDEF	1	54	0.252	13.602
AD	1	55	0.252	13.854
ADFF	3	58	0.756	14.610
AE	1	59	0.252	14.861
AEF	1	60	0.252	15.113
B	8	68	2.015	17.128
BCDE	2	70	0.504	17.632
BCDEF	15	85	3.778	21.411
BCDF	2	87	0.504	21.914
BCEF	1	88	0.252	22.166
BCF	1	89	0.252	22.418
BDEF	1	90	0.252	22.670
BDF	4	94	1.008	23.678
BEF	3	97	0.756	24.433
C	4	101	1.008	25.441
CD	5	106	1.259	26.700
CDE	8	114	2.015	28.715
CDEF	32	146	8.060	36.776
CDF	1	147	0.252	37.028
CE	2	149	0.504	37.531
CEF	3	152	0.756	38.287
D	11	163	2.771	41.058
DE	5	168	1.259	42.317
DEF	38	206	9.572	51.889
DF	2	208	0.504	52.393

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Table 19 (continued)

E	53	261	13.350	65.743
EF	67	328	16.877	82.620
F	19	347	4.786	87.406
N/A	50	397	12.594	100.000

-
- *A. First semester, freshman year
 - B. Second semester, freshman year
 - C. First semester, sophomore year
 - D. Second semester, sophomore year
 - E. First semester, junior year
 - F. Second semester, junior year

TABLE 20

STUDENTS WHO OWN OR HAVE
EXCLUSIVE USE OF AN AUTOMOBILE

N = 477

Q10*	Frequency	Cum Freq	Percent	Cum Percent
No	95	95	19.916	19.916
Yes	382	477	80.084	100.000

*See Appendix A, Question 10

TABLE 21
PARTICIPATION IN CAR EXPENSES

N = 388

Q11*	Frequency	Cum Freq	Percent	Cum Percent
A	9	9	2.320	2.320
AB	3	12	0.773	3.093
ABC	19	31	4.897	7.990
ABCD	98	129	25.258	33.247
ABD	2	131	0.515	33.763
AC	16	147	4.124	37.887
ACD	12	159	3.093	40.979
AD	1	160	0.258	41.237
B	9	169	2.320	43.557
BC	18	187	4.639	48.196
BCD	34	221	8.763	56.959
BCDA	1	222	0.258	57.216
BD	1	223	0.258	57.474
C	77	300	19.845	77.320
CD	20	320	5.155	82.474
N/A	68	388	17.526	100.000

- *A. Purchase price of car
 B. Insurance expense
 C. Gas/oil expense
 D. Tire expense

TABLE 22
 PERCENTAGE OF STUDENTS WITH
 CHECKING AND SAVINGS ACCOUNTS
 AND CREDIT CARDS
 N = 407

Q12*	Frequency	Cum Freq	Percent	Cum Percent
A	16	16	3.931	3.931
AB	46	62	11.302	15.233
ABC	25	87	6.143	21.376
AC	2	89	0.491	21.867
B	247	336	60.688	82.555
BC	15	351	3.686	86.241
C	5	356	1.229	87.469
N/A	51	407	12.531	100.000

*A. Checking Account
 B. Savings Account
 C. Credit card

TABLE 23
 PARTICIPATION IN EXTRACURRICULAR ACTIVITIES
 (No. of Hours Per Week)
 N = 485**

Hours	Frequency	Cum Freq	Percent	Cum Percent
0	242	242	49.897	49.897
0.5	1	243	0.206	50.103
1	7	250	1.443	51.546
2	11	261	2.268	53.814
3	12	273	2.474	56.289
4	3	276	0.619	56.907
5	25	301	5.155	62.062
6	8	309	1.649	63.711
7	7	316	1.443	65.155
8	7	323	1.443	66.598
8.5	1	324	0.206	66.804
9	3	327	0.619	67.423
10	42	369	8.660	76.082
11	3	372	0.619	76.701
12	12	384	2.474	79.175
13	2	386	0.412	79.588
13.5	1	387	0.206	79.794
14	4	391	0.825	80.619
15	21	412	4.330	84.948
16	4	416	0.825	85.773
17	2	418	0.412	86.186
18	3	421	0.619	86.804
20	23	444	4.742	91.546
22	3	447	0.619	92.165
23	3	450	0.619	92.784
24	1	451	0.206	92.990
25	2	453	0.412	93.402
26	3	456	0.619	94.021
27	1	457	0.206	94.227
28	4	461	0.825	95.052
30	8	469	1.649	96.701

(continued on next page)

Table 23 (continued)

32	3	472	0.619	97.320
34	1	473	0.206	97.526
35	3	476	0.619	98.144
40	5	481	1.031	99.175
50	1	482	0.206	99.381
70	1	483	0.206	99.588
73	1	484	0.206	99.794
86	1	485	0.206	100.000

*See Appendix A, Question 13

**No. of students in original sample

TABLE 24
FREQUENCY OF VOCATIONAL CHOICES

N = 469

Q14*	Frequency	Cum Freq	Percent	Cum Percent
A	4	4	0.853	0.853
AC	1	5	0.213	1.066
ACE	1	6	0.213	1.279
AD	1	7	0.213	1.493
AE	1	8	0.213	1.706
AEJ	1	9	0.213	1.919
AH	1	10	0.213	2.132
AJ	2	12	0.426	2.559
AK	2	14	0.426	2.985
B	22	36	4.691	7.676
BC	1	37	0.213	7.889
BCEF	1	38	0.213	8.102
ECG	1	39	0.213	8.316
BD	2	41	0.426	8.742
BDFI	1	42	0.213	8.955
BE	2	44	0.426	9.382
BFG	1	45	0.213	9.595
BG	2	47	0.426	10.021
BGK	1	48	0.213	10.235
BH	1	49	0.213	10.448
BHK	1	50	0.213	10.661
BJ	2	52	0.426	11.087
BK	3	55	0.640	11.727
C	94	149	20.043	31.770
CD	5	154	1.066	32.836
CDEI	1	155	0.213	33.049
CDGJ	1	156	0.213	33.262
CDK	1	157	0.213	33.475
CE	4	161	0.853	34.328
CEF	1	162	0.213	34.542
CEJ	2	164	0.426	34.968
CEK	1	165	0.213	35.181
CG	9	174	1.919	37.100
CGK	2	176	0.426	37.527

(continued on next page)

Table 24 (continued)

CH	4	180	0.853	38.380
CI	1	181	0.213	38.593
CJ	3	184	0.640	39.232
CK	8	192	1.706	40.938
D	12	204	2.559	43.497
DE	1	205	0.213	43.710
DH	2	207	0.426	44.136
DJ	1	208	0.213	44.350
DK	5	213	1.066	45.416
F	41	254	8.742	54.158
EH	1	255	0.213	54.371
EJ	7	262	1.493	55.864
EJK	1	293	0.213	56.077
EK	2	265	0.426	56.503
F	4	269	0.853	57.356
FG	3	272	0.640	57.996
FK	2	274	0.426	58.422
G	17	291	3.625	62.047
GH	3	294	0.640	62.687
GJ	1	295	0.213	62.900
GK	1	296	0.213	63.113
H	33	329	7.036	70.149
HI	2	331	0.426	70.576
HJ	1	332	0.213	70.789
HK	2	334	0.426	71.215
I	1	335	0.213	71.429
J	58	393	12.367	83.795
JK	1	394	0.213	84.009
K	71	465	15.139	99.147
N/A	4	469	0.853	100.000

*A. Agriculture

B. The Arts (art, drama, film, literature, music, etc.)

C. Business (accounting, banking, secretarial, etc.)

D. Education (teaching)

E. Engineering

F. Government

G. Law

H. Medicine

I. Religion

J. Trades and Industries (carpenters, electricians,
factory workers, plumbers, etc.)

K. Other

TABLE 25
PLANS FOR FURTHER EDUCATION

N = 468

Q15*	Frequency	Cum Freq	Percent	Cum Percent
No	64	64	13.680	13.680
Yes	404	468	86.320	100.000

*See Appendix A, Question 15

TABLE 26
EMPLOYED AND NON-EMPLOYED JUNIORS

N = 477

Q16*	Frequency	Cum Freq	Percent	Cum Percent
No	196	196	41.090	41.090
Yes	281	477	58.909	100.000

*See Appendix A, Question 16

TABLE 27
AVERAGE HOURS EMPLOYED PER WEEK

N = 281

Hours Per Week	Frequency	Cum Freq	Percent	Cum Percent
10-15	60	60	21.352	21.352
16-20	77	137	27.402	48.754
21-25	74	211	26.335	75.089
26-30	43	254	15.302	90.391
Over 30	27	281	9.609	100.000

*See Appendix A, Question 17

TABLE 28
FREQUENCY OF TYPE OF JOB

N = 277

Type of Job	Frequency	Cum Freq	Percent	Cum Percent
A	96	96	34.657	34.657
AC	1	97	0.361	35.018
AE	2	99	0.722	35.740
AI	3	102	1.083	36.823
B	6	108	2.166	38.989
C	15	123	5.415	44.404
CD	1	124	0.361	44.765
CDI	1	125	0.361	45.126
CI	2	127	0.722	45.848
D	85	212	30.686	76.534
E	4	216	1.444	77.978
EI	1	217	0.361	78.339
G	4	221	1.444	79.783
H	2	223	0.722	80.505
I	54	277	19.495	100.000

-
- *A. Department store, grocery, or other retail store
 B. Gas station or garage
 C. Secretarial, clerical, or business office
 D. Restaurant (including diswashing or busboy job)
 E. Greenhouse, nursery or farm
 G. Recreational establishment (bowling lanes, theatre, club, etc.)
 H. Music or music instruction
 I. Other

TABLE 29
 EXPECTATIONS FOR CONTINUING AT PRESENT JOB

N = 276

Q19*	Frequency	Cum Freq	Percent	Cum Percent
Through end of school year	45	45	16.304	16.304
Through next summer	59	104	21.377	37.681
Beyond next summer	95	199	34.420	72.101
Other	77	276	27.899	100.000

*See Appendix A, Question 19

TABLE 30
 FREQUENCY OF EMPLOYMENT
 BY RELATIVE
 N = 276

Q20*	Frequency	Cum Freq	Percent	Cum Percent
No	240	240	86.957	86.957
Yes	36	276	13.043	100.000

*See Appendix A, Question 20

TABLE 31
 FREQUENCY OF PAYMENT IF
 EMPLOYED BY RELATIVE
 N = 154

Q21*	Frequency	Cum Freq	Percent	Cum Percent
No	118	118	76.623	76.623
Yes	36	154	23.377	100.000

*See Appendix A, Question 21

TABLE 32
 ADVANTAGES GAINED FROM
 PART-TIME EMPLOYMENT
 N = 273

Q22*	Frequency	Cum Freq	Percent	Cum Percent
A	11	11	4.029	4.029
ABC	12	23	4.396	8.425
ABCD	5	28	1.832	10.256
ABCDE	2	30	0.733	10.989
ABCDEF	1	31	0.366	11.355
ABCDEFG	27	58	9.890	21.245
ABCDEFGH	11	69	4.029	25.275
ABCEDEG	3	72	1.099	26.374
ABCEDF	3	75	1.099	27.473
ABCEDFG	31	106	11.355	38.828
ABCEDFGH	5	111	1.832	40.659
ABCEDG	3	114	1.099	41.758
ABCEDEGH	2	116	0.733	42.491
ABCEDEH	1	117	0.366	42.857
ABCE	1	118	0.366	43.223
ABCEDEFG	1	119	0.366	43.590
ABCEEF	2	121	0.733	44.322
ABCEFG	3	124	1.099	45.421
ABCEFGH	1	125	0.366	45.788
ABCEFH	1	126	0.366	46.154
ABCF	9	135	3.297	49.451
ABCFG	13	148	4.762	54.212
ABCFGH	5	153	1.832	56.044
ABCG	12	165	4.396	60.440
ABCH	1	166	0.366	60.806
ABDFG	1	167	0.366	61.172
ABF	2	169	0.733	61.905
ABFGH	1	170	0.366	62.271
AC	7	177	2.564	64.835
ACD	8	185	2.930	67.766
ACDE	3	188	1.099	68.864
ACDEF	3	191	1.099	69.963

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Table 32 (continued)

ACDEFGH	2	193	0.733	70.696
ACDEG	1	194	0.366	71.062
ACDF	1	195	0.366	71.429
ACDFGH	1	196	0.366	71.795
ACDG	3	199	1.099	72.894
ACEFG	1	200	0.366	73.260
ACEG	1	201	0.366	73.626
ACF	2	203	0.733	74.359
ACFG	5	208	1.832	76.190
ACFH	2	210	0.733	76.923
ACG	3	213	1.099	78.022
B	2	215	0.733	78.755
BCDF	1	216	0.366	79.121
BCEG	1	217	0.366	79.487
BCF	3	220	1.099	80.586
BCFG	1	221	0.366	80.952
BCG	1	222	0.366	81.319
BE	1	223	0.366	81.685
EG	1	224	0.366	82.051
C	22	246	8.059	90.110
CD	4	250	1.465	91.575
CDE	3	253	1.099	92.674
CDEF	1	254	0.366	93.040
CDFGH	1	255	0.366	93.407
CDG	1	256	0.366	93.773
CEFG	1	257	0.366	94.139
CF	3	260	1.099	95.238
CFG	1	261	0.366	95.604
CG	1	262	0.366	95.971
E	1	263	0.366	96.337
EF	2	265	0.733	97.070
FG	1	266	0.366	97.436
G	5	271	1.832	99.267
H	1	272	0.366	99.634
N/A	1	273	0.366	100.000

*A. Job experience

B. Job skills

C. Money for personal expenses

D. Money for school expenses

E. Money for future educational costs

F. Interpersonal skills in dealing with others

G. A personal sense of accomplishment

H. Other

TABLE 33
IMPACT OF WORKING ON SCHOOL LIFE

N = 262

Q23*	Frequency	Cum Freq	Percent	Cum Percent
A	25	25	9.542	9.542
AB	16	41	6.107	15.649
ABC	4	45	1.527	17.176
ABCD	6	51	2.290	19.466
ABCDE	2	53	0.763	20.229
ABCE	6	59	2.290	22.519
ABD	2	61	0.763	23.282
ABE	6	67	2.290	25.573
ACD	4	71	1.527	27.099
ACE	3	74	1.145	28.244
AD	1	75	0.382	28.626
AE	13	88	4.962	33.588
B	16	104	6.107	39.695
BC	7	111	2.672	42.366
BCD	2	113	0.763	43.130
BCE	8	121	3.053	46.183
BD	2	123	0.763	46.947
BE	12	135	4.580	51.527
C	4	139	1.527	53.053
CD	1	140	0.382	53.435
CE	3	143	1.145	54.580
D	1	144	0.382	54.962
DE	1	145	0.382	55.344
F	115	260	43.893	99.237
N/A	2	262	0.763	100.000

-
- *A. Working has probably hurt my grades.
 B. Working kept me from participating in extracurricular activities.
 C. My part-time job didn't allow me time to "really become a part of the school."
 D. Working has prevented me from enjoying school.
 E. Working has been a positive experience for me.

TABLE 34
FREQUENCY OF NEED FOR STIMULANTS
(Coffee, No-Doz, etc.)
N = 273

Q24*	Frequency	Cum Freq	Percent	Cum Percent
No	200	200	73.260	73.260
Yes	73	273	26.740	100.000

*See Appendix A, Question 24

TABLE 35
 STUDENTS' FEELINGS TOWARD
 PART-TIME JOB
 N = 276

Q25*	Frequency	Cum Freq	Percent	Cum Percent
Very Satisfactory	87	87	31.522	31.522
Satisfactory	151	238	54.710	86.232
Unsatisfactory	14	252	5.072	91.304
Very Unsatisfactory	7	259	2.536	93.841
Other	17	276	6.159	100.000

*See Appendix A, Question 25