CHAPTER FOUR

ANALYSIS AND RESULTS

Introduction

This chapter presents the findings of the data analyses employed to investigate the relationship between part-time employment and academic engagement, academic achievement, family relationships, and peer relationships. The results were used to determine whether the hypotheses: intense part-time work is related to less engagement in school, and intensity of work is negatively related to family and peer activities, are supported. The study will also answer the following research questions: (1) What is the current nature of high school students' employment? (2) What is the relationship of school related factors with part-time employment and (3) What is the relationship of part-time employment with family and social life? The chapter presents descriptive statistics on demographics, correlations for variables of interest, scale formation, Exploratory Factor Analyses, t-tests, ANOVAs, and hierarchical regression analyses.

Research Question One

What is the current nature of high school students' employment?

Table1

Variables Used in Descriptive Statistics

Variable	Description	Coding
Age	Age of students in the study	15 years……1
		16 years…….2
		17 years…….3
		18 year ……..4
		19 year……...5

		Other (Please specify: ...6
Sex	Gender of students	Male…..1; Female…….2

Table 1, continued

Variables Used in Descriptive Statistics

Table1, continued

Variable	Description	Coding
Ethnicity	Ethnic orientation of students	White/Caucasian……...1 Black/African American...2 American Indian/Alaskan Native……3 Asian/Pacific Islander…...4 Mexican American……5 Other (Please specify:__)..6
School program	Program in which student is enrolled at school	College prep, academic, or specialized academic…....1 General education……...2 Vocational, technical, or business and career…….3 Other specialized high school program……..4 Special education program.5 Alternative……..6 I don't know……...7
Grade	High school grade level	9th grade……..1 10th grade……2 11th grade……3 12th grade……4

Variables Used in Descriptive Statistics

Variable	Description	Coding
GPA	Students' Grade Point Average (recoded)	A (3.75 – 4.0)……..7 A-, B+ (3.25 -3.74)……..6 B (2.75 – 3.24)…….5 B-, C+ (2.25 -2.74)……..4 C (1.75 – 2.24)…… 3 C- or less (below 1.75)… 2 I do not receive grades… 1
Father's education	The reported level of education obtained by the student's father or male guardian.	Less than high school graduation…….....1 High school graduation, GED or its equivalent……2 Vocational, Trade, or Business School after High School……3 College, but did not complete degree……4 Graduated from college….5 Master's degree or equivalent…… 6 Ph.D., M.D., or equivalent professional degree……7 Don't Know……...8
Mother's education	The reported level of education obtained by the student's mother or female guardian.	

Table 1, continued

Variables Used in Descriptive Statistics

Parents' education	Fathers' and mothers' education	The mean of fathers' and mothers' education.

Variable	Description	Coding
Father's occupation	The reported occupation of the student's father recoded to Duncan's Socio-economic Indicator of Occupational Status (Stevens & Cho, 1985)	Full-time homemaker……...1 Laborer.....2 Service worker.....3 Operator of machine .....4 Farmer/farm worker.....5 Tradesperson.....6 Protective service.....7
Mother's occupation	The reported occupation of the student's mother recoded to Duncan's Socio-economic Indicator of Occupational Status (Stevens & Cho, 1985).	Owner .....8 Office worker.....9 Technical - in computers 10 Sales.....11 Military.....12 Manager .....13 School teacher 14 Professional – accountant ..15 Professional – doctor .....16 Missing 17
Parent's occupation	Combined occupational status of parents	The mean of fathers' and mothers' occupation.
SES	Socio-economic status	The mean of parents' education and parents' occupation

Table1, continued

Variables Used in Descriptive Statistics

Work	Intensity of hours worked each week excluding weekends.	I have not worked .....1 1-5 hours a week.....2 6-10 hours a week.....3

		11-15 hours a week.....4 16-20 hours a week.....5 21-25 hours a week..... 6 26-30 hours a week.....7 31-35 hours a week.....8 36-40 hours a week.....9 Over 40 hours a week 10
Weekend work	Hours worked on Saturday or Sunday of each week.	0 hours .....1 1-5 hours ..... 2 6-10 hour .....3 11-15 hours ..... 4 16-20 hours……..…….... 5 Over 20 hours……..….. .6
Work type	Type of work done by students.	Lawn work or odd jobs ..... 1 Fast food work, waiter or waitress..... ..... 2 Delivery person..... .3 Babysitting or child care..... 4 Camp counselor or life guard.. 5 Farm work..... .6 Mechanic ..... 7 Grocery clerk, cashier..... 8 Beautician ..... .9 House cleaning .....10 Construction/Manual work…….....11 General office or clerical work… ……12 Hospital or health work .....13 Sales .....14 Newspaper route .....15 Coach.....16 Other (Please specify).....17

Table1, continued

Variables Used in Descriptive Statistics

Variable	Description	Coding
Influences on decisions to work	Persons who had the greatest influence on students' decision to work: Friends,	no influence..... 1 little influence..... 2 some influence..... 3

	teachers, parents, guidance counselors, brothers, sisters, and other.	a great deal of influence……..4
Important factors that contributed to decisions to work	Factors that influenced students' decisions to work: To have money for spending; future education; and family expenses; and to gain work experience.	not important……1 somewhat important…….2 important……..3 very important……..4
Spending	The amount of earnings students spend on selected items and activities: Personal items; recreational/social activities; household expenses, school supplies, saving for education; saving for personal purchase.	none ..... 1 a little ..... 2 some ..... 3 most ..... 4 all..... 5
Use of time if not employed	Activities that students are likely to pursue if they were not employed : study/do homework; participate in co-curricular activities; help parents at home; visit shopping malls or other places; watch TV; chat with friends on computer or phone; do volunteer work; sleep; surf the internet.	not at all ..... 1 somewhat likely..... 2 very likely..... 3 definitely……...4

Descriptive Statistics

Table1, continued

Variables Used in Descriptive Statistics

Variable	Description	Coding
Student's educational	Student's educational	Less than high school

expectations	expectations of how far he or she will go in school.	graduation……..1 High school graduation or GED or its equivalent…….2 Vocational, trade, or business school after high school……..3 College Program…….4 Graduate or professional school……..5 Don't know…….6
Father's educational expectations	Father's educational expectations of how far the student will go in school.	
Mother's educational expectation	Mother's educational expectations of how far the student will go in school.	

Descriptive statistics revealed that almost equal numbers of students in the study were age 17 (28.5%) and age 16 (28%), followed by age 15 (23%), age 18 (6%), and age 19 (.7%). The percentage of males (51.0%) was slightly higher than females (49%) which are the reverse percentages of the state of Virginia (males – 49% & females – 51%) and the nation (males - 49.1% & females 50.9%).

The breakdown of students by ethnicity showed a higher percentage of Whites (66.1%), followed by African American (26.5%), Asians (1.6%), Mexican Americans (1.4) with other ethnic groups comprising 4.4%, which is consistent with state and national statistics. Almost equal numbers of students were in grades 12 (30.2%) and grades 11 (28.3%), followed by grade 9 (22.2%) and grade 10 (19.3%). Almost half of the students were in the college preparation track (46.2%), followed by general education (30.4%), and vocational education (8.3%). Approximately 26% of students reported receiving As last semester, 23.8% reported A- or B+, 20.1% reported Bs, and 14.8% B- or C+. A small number of students (3.8%) reported receiving C- or less.

Of the 1402 students surveyed, 547 (39.0%) reported that they had never worked during the school year, 411 (29.3%) had worked but were not currently employed, while 444 (31.7%)

were currently employed. Thus, approximately 70 % of the students worked at some time during the school year.

Work Intensity of Students

Work intensity (number of hours worked) was recoded as "*workr"* into four levels of work intensity: low = 1-10 hours worked per week, moderate = 11-20 hours worked a week, high = 21 -30 hours worked a week, and very high - over 30 hours worked a week. This facilitated examining the effects of different levels of work intensity of currently employed students on study variables. Of the students who responded to (work intensity) number of hours worked per week (N = 742 past or current workers), 28.0% reported working at low intensity (1-10 hours), 28.7% reported moderate intensity (11-20 hours), 24.5% reported high intensity (21-30 hours), and 18.7% very high intensity (over 30 hours). Hence, 43.2% of students who had been employed in the past or were presently employed had worked over 20 hours a week.

Work Intensity by Gender

Crosstabulations were computed to assess the relationships between work intensity (number of hours worked) and other variables. In terms of gender, 52.4% of currently employed students who worked at low intensity (1-10 hours) were females compare with 47.6% males at the same intensity; 50.7 % of students who worked at moderate intensity (11-20 hours) were male compared with 49.3% females at the same intensity; 51.6% of students who worked at high intensity (21-30 hours) were male compared with 48.4% females at the same intensity, and 72.8% of students who worked at very high intensity (over 30 hours) were male compared with 27.2% females at the same intensity. Overall males worked at higher intensities than females.

Work Intensity by Age

Among the students who were currently employed, 7.7% were age 15, 29.8% were age 16, 45.8% were age 17, 9.9% were age 18, 1.1% were age 19 and 5.6 % comprised other ages. Crosstabulations on age and intensity of work indicated that most 15 year olds worked at low and moderate intensities (low – 51.9 %, moderate – 22.6%, high – 9.4%, and very high – 16.0%). The percentage of work hours by 16 year olds remained almost constant from low to high intensity, but the percentage dropped at very high intensity hours (low – 26.4 %, moderate – 30.7 %, high -26.4%, and very high – 16.5%). The work intensity among 17 year olds increased from low to high intensity but decreased at the very high intensity levels (low – 16.0 %, moderate – 30.7%, high – 32.8%, and very high – 20.5%). The work intensity among 18 year olds increased from low to moderate, decrease at the high intensity level but increase again at the very high intensity level (low – 11.1%, moderate – 33.3%, high – 23.8 %, and very high intensity – 31.7 %. Most 19 year olds worked at very high intensity levels (low – 16.7%, moderate - 16.7%, high – 0%, very high - 66.7%). Younger students worked at lower intensity levels than older students.

Work Intensity and Ethnicity

The majority of employed workers were White (75.8%), followed by African American (16.3%), Asians (2.0%) and Mexican Americans (1.4%). White/Caucasians worked at higher intensity levels than all other ethnic groups (low – 24.6 %, moderate – 31.0 %, high – 25.0%, and very high intensity – 19.5 %). More Blacks work at low intensity levels than any other ethnic group with a small percentage working at high intensity levels. (low – 36.7%, moderate – 24.7%, high – 25.3%, very high intensity – 13.3%). Equal percentages of Asian workers worked at low and high intensities (low-33.3%, moderate – 16.7%, high – 16.7%, and very high – 33.3%).

Whites work at higher intensity than other groups while Blacks represent the highest percentage of workers at the low intensity level.

Work Intensity and School Program

Among the students who currently worked (51.0%) were in the college prep program, followed by general education (29.2%), vocational technical (10.0%), other programs (1.6%), and don't know (8.2%).The percentage of workers in the college preparation program was highest at the moderate intensity but lowest at the very high intensity level (low – 29.3 %, moderate – 33.5 %, high – 21.4 %, very high intensity – 15.8 %). The percentage of workers in the general education program was highest at the high intensity work level and lowest at the very high intensity level (low intensity – 26.5%, moderate intensity – 23.5%, high intensity – 31.4%, and very high intensity – 18.6%). The percentage of technical and vocational workers increased at the higher work intensity levels (low -22.4%; moderate - 23.9%; high - 26.9%; and very high - 26.9%). Most workers were in college preparation or general education programs. Workers in the vocational technical program worked at the highest intensity levels followed by those in general education. Workers in college preparation worked at lower intensity levels.

Work Intensity and Grade

The majority of students who indicated that they were currently employed were in 12th grade (53.4%), followed by 11th grade (32.1%), 10th grade (9.3%), and 9th grade (7.7%). The majority of 9th grade students worked low intensity work hours (Figure 1) with just over 10% working at a combination of high and very high intensities (low – 65.9%, moderate - 22.7%, high - 4.5%, and very high - 6.8%) . The largest percentage of 10th graders also worked at low and moderate intensity levels with a smaller percentages at high and very high intensity levels

(low - 42.5%, moderate – 21.7%, high – 19.8%, and very high – 16.0%). For 11th graders, a lower percentage worked at the low level with the highest percentage of workers at the moderate level of hours and about 40 % a at high and very high intensity levels (low – 25.3%, moderate – 32.3%, high – 22.7%, and very high – 19.7%). Over 50% of 12th graders worked at high and very high intensity hours than any other grade level with less than 15% at the low level intensity (low – 14.6%, moderate intensity – 30.2%, high intensity – 33.3%, and very high intensity – 21.9 %. Students in 11th and 12th grades work at higher intensities than students in 9th or 10th grades.

Types of Work Done by Students

Descriptive statistics on types of work for the percentage of students who were currently employed indicated that fast food jobs, lawn work or odd jobs, and baby sitting were the most popular (Tables 2, 3, 4). Moderate numbers of students were also employed in super market and construction industries.

Analysis of Work Type by Age

Descriptive analysis by age showed that of the 217 students who were employed in the fasts food industry (Table 1), 48.4% were age 17, 34.1% age 16, and 10.6% age 18. Of the 76 students who were employed in lawn jobs, 32.9% were age 15, followed by 22.4% age 17, and 19.7% age 16. Of the 74 students who worked doing baby sitting 33.8% were age 15, 24.3% age 17, and 18.9% age 16. Some 57.1% of the 17 year olds worked as grocery clerks followed by 25.4% 16 year olds and 9.5% 15 year olds. Higher percentages of 16 and 17 year old workers are employed in the major part-time jobs. Higher percentages of 15 year olds work at lawn jobs and baby sitting.

Table 2

Major Work Types by Age (N=770)

	Fast Food or Odd Jobs (28.2%)		Lawn or Odd Jobs (9.9%)		Baby Sitting (9.6%)		Grocery Clerk (8.2%)	
	N	percent	N	percent	N	Percent	N	percent
15 years	8	3.7%	25	32.9%	25	33.8%	6	9.5%
16 years	74	34.1%	15	19.7%	14	18.9%	16	25.4%
17 years	105	48.4%	17	22.4%	18	24.3%	36	57.1%
18 years	23	10.6%	6	7.9%	3	4.1%	2	3.2%
19 years	2	0.9%	1	1.3%	0	0.0%	0	0.0%
Other	5	2.3%	12	15.8%	14	18.9%	3	4.8%
Total	217	100.0%	76	100.0%	74	100.0%	63	100.0%

Analysis of Work Type by Grade

Work type by grade indicated that almost half of the students employed in fast food jobs were in grades 12 (49.1%) followed by grade 11 (38%). Most workers who did lawn or odd jobs were in grades 9 (30.7%) and 10 (28%) followed by grade12 (22.6%). There was an almost even preference for baby sitting in grades 9 through 12. Mainly 17 year olds (57.1%) followed by 16 year olds (25.4%) showed a preference for grocery jobs. Higher percentages of students in grades 11 and 12 worked than students in grades 9 and 10.

Table 3

Major Work Types by Grade (N=770)

	Fast Food or Odd Jobs (28.1%)		Lawn or Odd Jobs (9.7%)		Baby Sitting (9.6%)	
9th grade	7	3.2%	23	30.7%	21	28.4%
10th grade	21	9.7%	21	28.0%	21	28.4%
11th grade	82	38.0%	14	18.7%	14	18.9%
12th grade	106	49.1%	17	22.6%	18	24.3%
	N	Percent	N	Percent	N	percent
Total	216	100.0%	75	100.0%	74	100.0%

Analysis of Work Type by Gender

Gender analysis revealed that males had a preference for fast food work (28.2%) followed by lawn and odd jobs (16.6%). Females also had a preference for fast food work (34.6%) followed by baby sitting (19.7%). Both males and females showed a preference for working at fast food establishments. While males chose lawn and odd jobs as their next choice of jobs, females chose baby sitting.

Analysis of Work Type by Ethnicity

The results indicate that 68% of White workers work at lawn jobs compared with 25.3% Black and 1.3% Asians. There was 69.8% participation by Whites in fast food establishments compared to 22.8% Black. A large percentage of babysitters were White (82.4%) compared with 14.9% Black and 1.4 % Asian. This trend followed in most jobs (camp counselor 88.9% White, grocery worker 88.5% White, and construction worker, 88.5% White). Part-time jobs comprised mainly white employees.

Influences on Students' Decisions to Work and Spending Preferences

Frequency analyses on some or a great deal of influence to work (Table 2) indicated that parents had the greatest influence (75.6%) on students' decision to work or not. This was followed by friends (35.7%). Teachers influenced only 18.3% with the guidance counselor having 11.3% influence. Parents had the greatest influence on students' decision to work and friends did have some influence, while guidance counselors and teachers had the little influence.

Just over half of the students (55.8%) indicated that spending was a very important reason for working, followed by saving for education (36.7 %) and work experience (35.7%). Only

21.4% of students indicated that they worked to assist with family expenses. Some.36.7% reported that it was very important to save for education while 21.4% felt that it was very important to save for family expenses.

Table 4
Influences on Students' Decisions to Work (N=744)

	No influence	Little influence	Some influence	A great deal of Influence	Total
Friends	37.2%	27.1%	25.5%	10.2%	100%
Teachers	63.3%	18.1%	10.9%	7.4%	100%
Parents	13.6%	10.9%	26.7%	48.9%	100%
Guide Counselor	74.2%	14.4%	5.9%	5.4%	100%
Brothers	65.2%	13.7%	13.1%	8.0%	100%
Sisters	65.5%	11.8%	14.7%	8.0%	100%
Other	65.2%	4.5%	6.3%	24.0%	100%

Alternatives to Working

Students' reports on the different activities they would participate in (very likely or definitely) if they were not working indicated that a large number will sleep (64.5%), shop (62.5%), chat with friends on the computer or telephone (57.7%), participate in extra-curricular activities (54.5%), watch television (50.9%), help parents (44.8%), and surf the internet (44.5%). More than one third of the students (37.3%) indicated they would study or do homework, followed by 32.8% opting for co-curricular activities and 24.1% for volunteer work.

With respect to the number of hours spent on homework in and out of school, approximately 90% of students reported that they spent 0 to 3 hours on home work in school while 68% reported that they spent between 0 to 3 hours on home work out of school. Only 2.3% of students reported that they spent 10 to over 15 hours on homework in school while 10% reported spending the same number of hours doing homework out of school. The pattern of

spending little time on homework that was evident in other studies (Steinberg, 1996) was also evident in this study.

Coping in the Workplace

Students reported mixed experiences in the workplace. Negative experiences in the work place have had psychological effects on students (Bachman et al., 2003; Mortimer, Finch, Ryu, & Shanahan, 2003). A large percentage of students (79.8%) agreed and agreed strongly that they loved their part-time job. Some students agreed that their job taught them responsibility and commitment (85.8%), punctuality and good work habits (84.6%), skills for future careers (70.6%), general valuable skills (29.4%), and the ability to build relationships with adults in the workplace (83.3%)

While some students reported that they experienced no problems on the job (41.5%) there were some negative reports about work that may be linked to psychological effects. Students reported that the job was tiring (69.1%), stressful (41.0%), reduced study time (48.1%), interfered with school work (21.0%), and resulted in irregularity at school (15.8%). A small number of students felt they were not given adequate instructions to complete tasks at work (18.7%).

The majority of students (92.7%) reported that the job gives them money and many students (71.9%) reported that the job gave them the ability to purchase things they otherwise could not afford. Some students stated that their job gave them a sense of freedom (64.6%), while others reported that they had complete control over their earnings (75.1%). Just over half of the students (54.5%) said that they sought advice from parents about their job, while a large percentage (78.9%) talked to friends about the job. Students reported both positive and negative

attributes of their job. Overall students were satisfied with their jobs and the fact that it provided them with money and the ability to purchase the things they could not otherwise afford.

In the study there were almost equal numbers of students age 15 the 17 and smaller numbers of students who were 18 or 19 years old. The number of males was slightly higher than females and 66.1% of students were White. Approximately 60% of students were in grades 11 or 12. Approximately 70% of students reported receiving As and Bs and 85.4% reported that they expected to receive As and Bs next semester. Some 31.7% of students reported that they were currently employed.

White employees outnumbered all other ethnic groups in every job. More females were currently employed at low intensity hours (52.4%), while more males worked at moderate, high and very high levels. Most workers were ages 16 and 17. Most workers stated that their parents were the major influence on their decision to work and that they work for the financial rewards provided. Generally, workers valued the instrumental value of work rather than the intrinsic value.

Scale Development

Several summated scales were developed as dependent variables for the study. Items for the various scales were generated from the existing literature and were part of the Work, School, and Social Experiences of High School Students (WSSES) survey. Exploratory factor analysis (EFA) was conducted to identify particular scale items and the number of these items to be incorporated in each scale. Output requests using VARIMAX rotation and sorted by size were descriptive statistics, correlation matrix, total variance explained, scree plot, rotated component matrix, and eigenvalues over 1. Eigenvalues, rotated component matrix, and scree plot were used

to identify loadings and number of items for each scale as well as any items to be deducted. Next, reliability analyses were conducted to calculate Cronbach's alpha coefficients to examine the internal consistency of each scale. All alphas were above .64 (See Table 4).

A reasonable cut off is .6 0and the alpha should be at least .70 or higher to retain an item in an adequate scale. Many researchers require .8 for a "good scale." (Nunnelly, 1978). Following reliability analyses items with heavy loadings on more than one factor and those with loadings less than .4 were deleted. The scale procedures are described herein and constructs and items are shown in Table 4.

Scale	Number of items	*Factors Extracted*	Eigenvalue	Explained Variance	Item Loadings	Alpha Coefficient
learning behaviors in class	7	1	3.47	49.57	All exceed .60	.82
parent family relations	9	1	4.76	52.85	All exceed .64	.89
Parent adolescent conflict	2	1	1.52	76.15	All exceed .87	.70
intrinsic value of work	5	1	2.93	58.54	All exceed .70	.82
parent adolescent interaction	8	1	4.63	57.9	All exceed .66	.86
work stress	4	1	2.96	56.61	All exceed .69	.74
peer relationship	6	1	3.53	58.89	All exceed .53	.84
instrumental value of work	5	1	3.20	44.04	All exceed .60	.70
peer activity	6	1	3.15	52.49	All exceed .63	.82
negative perceptions of work	4	1	2.14	53.47	All exceed .64	.71
peer interaction	4	1	2.47	61.68	All exceed .75	.79
unpreparedness	5	1	2.03	50.65	All exceed .70	.64
peer enjoyment for class	2	1	1.63	82.50	All exceed .91	.78
importance of academic learning	6	1	3.33	55.53	All exceed .63	.84
joy of learning	6	1	3.15	52.51	All exceed .64	.82
apathy towards school	4	1	2.11	52.11	All exceed .70	.70

Table 5

Results of Exploratory Factor Analyses for Summated Scales in Study

Dependent *Variables*

Dependent variables for this study are in four categories (Table 5): Work related; School engagement; Parent and family relationships, and Peer relationships.

Work-related variables. Four work-related variables were computed from 18 of the 21 items in question 17: Intrinsic value of work; work stress; instrumental value of work; and negative perceptions of work. Item 17s was not included in the scale "work related stress" because the factor loading was considered too low (-.49). Similarly, a scale was not computed using items 17t and 17u because of the low alpha (.44).

Intrinsic Value of Work. Intrinsic value of work (a = .82) measured students' affective attitude towards work using a four-point rating scale from 1=strongly disagree to 4= strongly agree. The scale was computed using the mean of items 17e, c, b, a, and f. For example: I like my job; My job reduces study time. A high score on this variable indicates that the student had a high intrinsic value of work.

Work Related Stress. Work related stress (.74) measured the stress related aspects of students' employment using a four-point rating scale which was recoded from 1=strongly disagree to 4= strongly agree into 1=strongly agree to 4= strongly disagree. The scale was computed using items 17ir, dr, jr, and gr). For example: My job is stressful; My job is tiring. A high score on this variable means that the student experienced a high level of job stress

Instrumental Value of Work. Instrumental value of work (a = .70) measured the monetary value that students' attach to work as well as the students' perception of the autonomy associated

with work. Items were on a four-point scale from 1=strongly disagree to 4=strongly agree. The scale was computed using the mean of items 17l, h, n, m, o of the survey. For example: My job gives me spending money; I enjoy more freedom because of my job. A high score on this variable indicates that the student had a high instrumental value of work.

Negative Value of Work. Negative value of work (a = .71) measured the negative characteristics associated with students' jobs. Items were on a four-point scale which was recoded from 1=strongly disagree to 4=strongly agree into 1=strongly agree to 4=strongly disagree. The scale was computed using the mean of items 17pr, qr, rr, and kr. For example: I have not learned valuable skills from my job; My supervisor is not supportive. A high score on this variable indicates that the student had a negative value of work.

School Engagement Variables.

Six scales were computed to measure school and class engagement: School attendance problems; unpreparedness for class, value of academic learning, joy of learning, apathy towards school, and learning behaviors in class. Items were taken from questions 24, 25, and 27 of the survey.

School Attendance Problems. School attendance problems (a = .75) measured problems that affected students' attendance and preparedness for school using a five-point rating scale from 1=none to 5=more than 10 times. The scale was computed using the mean of items 24a, b, c, h, and g. For example: I was late for school; I came to school without books. A high score on this variable means that the student had frequent problems related to school attendance.

Unpreparedness for Class. Unpreparedness for class (a = .64) measured the elements that contributed to students lack of adequate preparation for class using a five-point rating scale from

1=none to 5=more than 10 times. The scale was computed from the mean of items 24d, i, f, and e of the survey. For example: I fell asleep in class; I did not complete homework. A high score on this variable means the student was frequently unprepared for class.

Value of Academic Learning. Value of academic learning (a = .84) measured the intrinsic, positive merits that the student attributed to academic learning using a four-point rating scale from 1=strongly disagree to 4=strongly agree. The scale was computed using the mean of items 25p, o, m, j, n, and g. For example: Academic success is important to me; I always do my best in school. A high score on this variable indicates that the student placed high value to academic learning.

Joy of Learning. Joy of learning (a = .82) measured students' enjoyment with school participation and experiences using a four-point rating scale from 1=strongly disagree to 4=strongly agree. The scale was computed using the mean of items 25 b, e, a, d, c, and f. For example: School is fun; My school experiences are generally positive. A high score on this variable means that the student enjoyed learning.

Apathy Towards School. Apathy towards school (a =.70) measured students' negative attitudes towards school using a four-point rating scale which was recoded from 1=strongly disagree to 4=strongly agree into 1=strongly agree to 4=strongly disagree. The scale was computed using the mean of items 25 hr, ir, lr, kr. For example: I do not like school; I would rather work than attend school. A high score on this variable means that the student had a high level of indifference towards school.

Learning Behaviors in Class. Learning behaviors in class (a =.82) measured the classroom learning behaviors of students using a five-point rating scale from 1 = never (zero days) to 5 = all

the time (five days). The scale was computer using items 27f, a, d, e, g, b, and c of the survey. For example: Learn and memorize work; pay attention in class. A high score on this variable means the student practiced positive learning behaviors in class most of the time.

Parent and Family Relationships Variables.

Three scales were computed (parent and family relationships; parent adolescent conflict; and parent adolescent interaction) on parent and family relationships using items from questions 27, 28, and 29 of the survey.

Parent and family Relationships. Parent and family relationships (a = .89) measured the relationships of students with their parents and family members using a four-point rating scale from 1=strongly disagree to 4=strongly agree. The scale was computed using the mean of items 28d, a, k, j, i, c, h, b, and g from the survey). For example: My parents trust me; we spend considerable time together as a family. A high score on this variable indicates that the student experienced positive parent and family relationships. *Parent Adolescent Conflict.* Parent adolescent conflict (a =.7) measured conflict between students and their parents using a four-point rating scale which was recoded from 1=strongly disagree to 4=strongly agree into 1=strongly agree to 4=strongly disagree. The scale was computed using the mean of items 28e, and f. For example: I have conflict with my parents; My parents and I disagree on most things. A high score on this variable indicates that the student encountered high levels of conflict and disagreement with parents.

Parent Adolescent Interaction. Parent adolescent interaction (a =.89) measured the interaction between students and their parents using a five point rating scale from 1=never to

5=daily. The scale was computed using the mean of items 29f, g, e, c, a, b, d, h. For example: Selecting courses for school; applying to college. A high score on this variable indicates the student experienced frequent interaction with parents.

Peer Relationships

Four scales were computed on peer relationships (peer relationships, peer activity, peer interaction and peer enjoyment). These items were taken from questions 30 and 31 of the Survey.

Peer Relationships. Peer relationships (.84) measured spending time with, and getting support from friends using a four-point rating scale from 1=strongly disagree to 4=strongly agree. The scale was measure using items 30c, b, d, e, a, and f. For example: My friends like me; I have a good time with my friends. A high score on this variable indicates that the student experienced good relationships with peers.

Peer Activity. Peer activity (a =.82) measured the frequency of attending events and participating in school and social activities with friends using a five point rating scale from 1=never to 5 = daily. The scale was computed using the mean of items 31a, d, h, f, e, and b. For example: Attending school activities; attending social functions. A high score on this variable indicated that students engaged in frequent activities with peers.

Peer Interaction. Peer interaction (a =.79) measured attending recreational and non-school activities with friends using a five point rating scale from 1=never to 5 = daily. The scale was computed using the mean of items 31g, i, j, and c. For example: Going shopping; going to restaurants or eating out. A high score on this variable indicated that the student had frequent outings with peers.

*Peer enjoyment (*a =.78) measured fun activities with peers on a five point rating scale from 1=never to 5=daily. The Scale was computed using the mean of items 31l and 31k. For example: Having fun together, spending time just talking together. A high score on this variable indicated that the student frequently did fun activities with peers.

Table 6
Constructs and Items for Variables

Construct	Item Wording and Codes	M	SD
Work (N=679)			
intrinsic value of work	My job helps me develop skills for a future career (17e).	2.88	.88
a = .82	My job teaches me punctuality and good work habits (17c).	3.12	.73
	My job teaches me responsibility and commitment (17b).	3.16	.75
	I like my job (17a).	3.00	.80
	I am able to build relationships with adults at my job (17f).	3.15	.82
	(1=strongly disagree to 4=strongly agree)		
work stress	My job is stressful (17i r).	2.32	.91
a = .74	My job reduces my study time (17d r).	2.50	.96
r = recoded item	My job interferes with my school work (17j r).	1.94	.80
	My job is tiring (17g r).	2.86	.92
	(1=strongly agree to 4=strongly disagree)		
instrumental value of work	My job gives me spending money (17l).	3.44	.69
a = .70	I am able to balance work and school (17h).	3.09	.76
	I buy things that otherwise I couldn't afford (17n).	2.93	.90

	I enjoy more freedom because of my work (17m)	2.77	.87
	I have complete control over my earnings (17o). (1=strongly disagree to 4=strongly agree)	2.99	.86
negative value of work	I have not learned valuable skills on my job (17p r).	1.82	.85
a = .71	My supervisor is not supportive (17q r).	1.73	.84
	I am not given adequate instructions to complete tasks at work (17r).	1.80	.83
	I have missed school work because of my job (17k r). (1=strongly disagree to 4=strongly agree)	1.67	.82

Table 6, continued
Constructs and Items for Variables

Construct	Item Wording and Codes	M	SD
School (N=1228)			
school attendance problems	I was late for school (24a).	1.30	.64
a = .75	I missed school (24b).	1.36	.69
	I cut or skipped classes (24c).	1.12	.52
	I came to school without books (24h).	1.19	.60
	I came to school without pencil or paper (24g). (1=none to 5=more than 10 times)	1.25	.72
unpreparedness for class	I came to school tired (24d).	3.24	1.38
a = .64	I did not complete home work (24i).	1.76	.93
	I fell asleep in class (24f).	1.83	1.09
	I failed to participate in class because I was unprepared (24e). (1=none to 5=more than 10 times)	1.29	.67
Learning (N=1334)			
value of academic learning	Doing well at school is important to me (25p).	3.35	.72

a = .84	I always try to do my best in school (25o).	3.17	.73
	I always try hard, no matter how difficult the work (25m).	3.00	.75
	Academic success is important to me (25j).	3.33	.73
	When I fail that makes me work that much harder (25n).	2.98	.80
	I feel I am responsible for my learning (25g). (1=strongly disagree to 4=strongly agree)	3.23	.69
joy of learning	I look forward to school because I like the subjects (25b).	2.52	.78
a = .82	Participation in school is fun (25e).	2.65	.76
	I enjoy school because I like learning new things (25a)	2.72	.77

Table 6, continued
Constructs and Items for Variables

Construct	Item Wording and Codes	M	SD
	My school experiences are generally positive (25d).	2.86	.66
	My teachers take interest in my learning (25c).	2.86	.71
	I often study things that interest me (25f). (1=strongly disagree to 4=strongly agree)	3.00	.78
apathy towards school	I would rather work than attend school (25h r)	2.20	.98
a = .70	School is just a place to meet my friends (25i r).	2.26	.82
r = recoded item	I come to school because I have nothing better to do (25l r).	1.85	.80
	I do not like school (25k r). (1=strongly agree to 4=strongly disagree)	2.36	.97
Class engagement (N=1303)			
learning behaviors in class	Learn and memorize work (27f).	3.52	1.16
a = .82	Pay attention in class (27a)	4.06	.91
	Participate actively in class (27d)	3.77	1.14

	Review work from the last day (27e)	3.00	1.27
	Make notes in class (27g)	3.91	1.20
	Complete work on time (27b)	4.25	.93
	Do more work than is required (27c) [1=never (0 days) to 5=daily]	2.60	1.29
Parent & family relations (N=1308)			
parent family relations	My parents spend time talking to me (28d).	3.02	.80
a = .89	My parents give me a lot of affection (28a)	3.08	.83
	We spend considerable time together as a family (28k).	2.72	.90
	Family activities are important (28j).	2.82	.88
	My parents are proud of my achievements (28i).	3.33	.73

Table 6, continued
Constructs and Items for Variables

Construct	Item Wording and Codes	M	SD
	My parents administer supervision and control (28c).	3.13	.77
	My parents generally know my whereabouts (28h)	3.17	.76
	My parents trust me (28b).	3.12	.82
	I discuss major issues with my parents (28c). (1=strongly disagree to 4=strongly agree)	2.73	.91
parent adolescent conflict	I have conflict with my parents (28e r).	2.59	.87
a = .70 r = recoded item	My parents and I disagree on most things (28f r). (1=strongly agree to 4=strongly disagree)	2.34	.89
Parent adolescent interaction	Choosing a career (29f)	3.20	1.25
a = .89	Things of interest (29g)	3.59	1.30
	Applying to college (29e)	3.06	1.31
	Grades (29c)	3.57	1.18
	Selecting courses at school (29a)	2.73	1.16

	School activities or events of interest (29b)	3.25	1.33
	Plans for SAT test (29d)	2.44	1.27
	Problems at school (29h) (1=never to 5=daily)	3.04	1.45
Peer relationships 1			
N=1297			
peer relationships	I have a good time with my friends (30c).	3.46	.65
a = .84	My friends like me (30b).	3.37	.66
	I spend considerable time with my friends (30d).	3.19	.78
	I have many good friends in my school (30e).	3.17	.82
	My friends are helpful and supportive (30a).	3.15	.75

Table 6
Constructs and Items for Variables

Construct	Item Wording and Codes	M	SD
	I would rather go to my friends with problems than to adults (30f). (1=strongly disagree to 4=strongly agree)	3.00	.90
Peer relationships 2			
N=1301			
peer activity	Attending school activities (31a)	3.18	1.29
a = .82	Attending sporting events out of school (31d)	3.13	1.27
	Working on a hobby or playing sport (31h)	3.27	1.45
	Attending social functions (31f)	2.84	1.24
	Attending religious services (31e)	2.50	1.34
	Working on home or school projects (31b) (1=never to 5=daily)	3.05	1.36
peer interaction	Taking day trips or vacations (31g)	2.40	1.09
a = .79	Going shopping (31i)	2.83	1.16
	Going to restaurants/eating out (31j)	3.27	1.08

	Attending concerts, plays, or movies outside of school (31c) (1=never to 5=daily)	3.03	1.11
peer enjoyment	Having fun together (31l)	4.31	1.08
a = .78	Spending time just talking together (31k) (1=never to 5=daily)	3.99	1.23

Research Question Two

What is the relationship of school related factors with part-time employment?

T-tests and ANOVAs on Study Variables

Independent sample t-tests were conducted to identify the differences between workers and non-workers on the study variables: school attendance problems, unpreparedness for class, value of academic learning, joy of learning, apathy towards school, learning behaviors in class, parent family relationships, parent adolescent conflict, peer interaction, peer activity, peer interaction, and peer enjoyment (see Table 6). The tests were conducted at the .01 significance level to minimize Type 1 Error inflation. Equal variances were assumed except when Levene's Test for Equality of Variances was significant.

Significant differences were found between workers and non-workers on school attendance problems ($t(965) = -2.59$, $p=.01$), unpreparedness for class ($t(966) = -6.07$, $p<.01$), value of academic learning ($t(972) = 3.63$, joy of learning ($t(971) = 3.75$, $p < .01$), apathy towards school ($t(963) = -3.41$, $p< .01$), parent family relationships ($t(962) = 3.45$, $p<.01$). Hence, students who were not employed experienced lower levels of school attendance problems ($m =1.24$, $sd = .47$); unpreparedness for class ($m =1.91$, $sd = .71$); and apathy towards school ($m = 2.10$, $sd = .63$). These students (not employed) also experienced higher values of academic

learning (m = 2.88, sd = .51); greater joy of learning (m = 2.83, sd = .50); and greater parent family relationships (m = 3.10, sd = .60)

Differences between workers and non-workers at the .01 significance level on parent adolescent conflict (t(957) = -.36); parent adolescent interaction (t(959) = 1.55, p,.01; peer relationships (t(956) = .82, p > .01), peer activity (t(949) = 2.13, p> .01); peer interaction, (t(950) = -.32, p >.01), and peer enjoyment (t(948) = -.32, p>.01), were not significant. This means that work did not appear to affect conflict between parent and adolescent; interaction with parents, as well as relationships, activities, interaction and enjoyment with peers.

ANOVA on Differences Among Workers Based on Study Variables

Several one-way ANOVAs were computed to examine the differences among workers due to intensity of work on study variables (Table 7). Intensity of work was a recoded variable with four levels: Low intensity -1 to 10 hours; moderate intensity -11 to 20 hours; high intensity - 21 to 30 hours; very high intensity – over 30 hours. Significant differences were found among the different work hours and school attendance problems F(3, 727) = 3.46, p< .05; unpreparedness for class F(3, 728) = 3.35, p< .05; value of academic learning F(3, 728) = 2.75, p=.05; parent family relationships F(3, 718) = 4.16, p<.05; peer relationships F(3, 718) = 4.16, p< .05; peer activity F(3, 714) = 5.74, p< .05; peer interaction F(3, 711) = 3.14, p<.05; and peer enjoyment F(3, 711 = 3.51, p<.05) .

Tukey HSD post-hoc analyses (Table 8) were conducted to determine the nature of the differences among the different work hours on the significant variables. The analyses revealed that low intensity workers (m = 1.25, sd = .47) were significantly different from very high

intensity workers (m = 1.44, sd = .69) but were not significantly different from moderate (1.32, sd = .50) and high intensity workers (m = 1.32, sd =.57) on school attendance problems.

With regard to unpreparedness for class, low intensity workers (m = 2.02, sd = .81) were significantly different from very high intensity workers (m = 2.26, sd = .88), but not significantly different from moderate intensity workers (m = 2.21, sd = .75) and high intensity workers (m = 2.19, sd = .75). On value of academic learning, low intensity workers (m=2.86, sd=.51) were different from high intensity workers (m = 2.73, sd = .49) but not significantly different from moderate (m = 2.75, m = .46) or very high intensity workers (m=2.76, sd = .53).

On parent family relationships, low intensity workers (m = 3.06, sd = .60) were significantly different from high intensity workers (m = 2.86, sd = .54) but not significantly different from moderate intensity workers (m = 2.95; sd = .58) and very high intensity workers (m =2.90, sd =.68) on peer relationships.

On peer relationships, low intensity workers (m = 3.09, sd = .63) were significantly different from very high intensity workers (m = 2.88, sd = .60) but not significantly different from moderate (m = 3.04, sd = .54) and high intensity workers (m = 2.97, sd = .57). Low intensity workers (m = 3.09, sd = .99) were significantly different from very high intensity workers (m = 2.88, sd = .60) but were not significantly different from those who worked at moderate intensity (m = 3.01, sd = .90) and those who worked at high intensity levels (m = 2.84, sd =.91 on peer activity. On peer interaction, low intensity workers (m = 2.95, sd = .86) were significantly different from very high intensity workers (m= 2.67, sd = 1.01), but not significantly different from moderate (m = 2.89, sd = .79), and high intensity workers (m = 2.93, sd = .80). Also, on peer enjoyment, workers who worked at very high intensity levels (m = 3.80,

sd = 1.28) were significantly different from those who worked at low intensity (m = 4.15, sd = 1.03), moderate intensity (m = 4.11, sd = 1.01), and high intensity levels (m = 4.14, sd = 1.03).

In summary, workers were significantly different from non-workers on school attendance problems, unpreparedness for class, value of academic learning, parent family relationships, peer relationships, peer activity, peer interaction, and peer enjoyment. Workers who worked at very high intensity levels were significantly different from workers who worked at low, moderate and high intensity levels.

Table 7

T-test Between Workers and Non-workers on Study Variables

Variables		N	Mean	Std. Dev.	t	Sig. 2-tailed	Effect Sizes Cohen's d
parent family relations	Not employed	532	3.10	.60	3.45	.001	0.22
	Employed	432	2.97	.59			
parent adolescent conflict	Not employed	529	2.44	.79	-0.36	.719	-0.03
	Employed	430	2.46	.77			
school attendance problems	Not employed	527	1.24	.47	-2.58	.01	-0.16
	Employed	440	1.32	.53			
parent adolescent interaction	Not employed	531	3.16	.96	1.55	.123	0.10
	Employed	430	3.06	.96			
unpreparedness for class	Not employed	528	1.91	.71	-6.07	.00	-0.40
	Employed	440	2.21	.80			
peer relationship	Not employed	527	3.05	.57	0.82	.410	0.05
	Employed	431	3.02	.58			
value of academic learning	Not employed	534	2.88	.52	3.63	.00	0.24
	Employed	440	2.76	.49			
peer activity	Not employed	524	3.05	.94	2.13	.034	0.14
	Employed	427	2.92	.96			
joy of learning	Not employed	534	2.83	.50	3.75	.00	0.23
	Employed	439	2.71	.56			
peer interaction	Not employed	525	2.88	.89	-0.32	.746	-0.02
	Employed	427	2.90	.84			
apathy towards school	Not employed	527	2.10	.63	3.71	.00	-0.23
	Employed	438	2.25	.66			
peer enjoyment	Not employed	523	4.25	1.00	0.99	.049	0.13
	Employed	427	4.12	1.03			
learning behaviors in class	Not employed	531	3.65	.78	2.30	.021	0.15
	Employed	437	3.53	.80			

Table 8
Mean Comparisons Among Groups Based on Intensity of Work Hours (Post Hoc Tests)

Construct	Low (L)	Moderate (M)	High (H)	Very High (VH)	Sig. Differences
school attendance problems	1.25	1.32	1.32	1.44	VH >L
unpreparedness for class	2.02	2.21	2.19	2.26	VH >L
value of academic learning	2.86	2.75	2.73	2.76	
joy of learning	2.79	2.71	2.65	2.70	
apathy towards school	2.21	2.20	2.24	2.34	
learning behaviors in class	3.64	3.45	3.56	3.46	
parent family relations	3.06	2.95	2.86	2.90	L>H
parent adolescent conflict	2.56	2.48	2.50	2.40	
parent adolescent interaction	3.11	3.16	2.95	2.97	
peer relationships	3.09	3.04	2.97	2.88	L>VH
peer activity	3.09	3.01	2.84	2.69	L>VH M>VH
peer interaction	2.95	2.89	2.93	2.67	L >VH
peer enjoyment	4.15	4.11	4.14	3.80	L >VH M>VH H>VH

Also, low intensity workers (m = 3.09, sd = .99) were significantly different from very high intensity workers (m = 2.69, sd = 1.05) but were not significantly different from moderate (m = 3.01, sd = .90) and high intensity workers (m = 2.84, sd =.91) on peer activity. Low intensity workers (m = 2.95, sd = .86) were significantly different from very high intensity workers

(m = 2.67, sd = 1.01), but not significantly different from moderate (m = 2.95, sd = .86), and high intensity workers (m = 2.89, sd = .78) on peer interaction. However, very high intensity workers (m = 3.80, sd = 1.28) were significantly different from low intensity (m = 4.15, sd = 1.03), moderate intensity (m = 4.11, sd = 1.00), and high intensity workers (m = 4.14, sd = 1.03) on peer enjoyment.

Correlations among Variables

Zero order correlations were computed to examine the relationship of work intensity to school engagement, co and extracurricular activities, work relations, parent/family relationships, and peer relationships. School engagement was measured on three levels: Behavioral (attendance, preparedness and classroom behavior), cognitive (learn and memorize work, make notes in class, and emotional (value of learning, apathy of learning, and joy of learning). Work relationships were measured as positive and negative values of work, work related stress, and instrumental value of learning. Parent/family relationship was measured as parent and family relationship, parent adolescent conflict, parent adolescent interaction. Peer relationships were measured as peer relationships, peer activity, peer interaction, and peer enjoyment.

Correlations among Work Intensity and School Engagement Variables (Table 9)

There were weak positive correlations between school attendance problems and work intensity (.11), unpreparedness for class and work intensity (.11), but a strong correlation between unpreparedness for class and school attendance problems (.47). This indicated that work has a negative effect on attendance and class preparedness and unpreparedness affects school attendance. There were weak negative correlations between value of academic learning and work (-.09), and value of academic learning and school attendance problems (-.19). Work also affects

value of academic learning and school attendance. There was a moderate negative correlation between value of academic learning and unpreparedness for class (-.32). A lower academic value results in greater unpreparedness for class.

There were weak negative correlations between joy of learning and work (-.07), and joy of learning and school attendance problems (-.19). The higher the intensity of work, the greater the school attendance problems and the less joy of learning experienced. There was a moderate negative correlation between joy of learning and unpreparedness for class (-.32) and a strong positive correlation between joy of learning and value of academic learning (.58). Increased unpreparedness for class and low value of academic learning leads to less joy of learning. There were weak positive relationships between apathy towards school and work (.08), and apathy towards work and attendance problems (.14). There were moderate positive correlations between apathy towards school and unpreparedness for class (.25), and value of academic learning (-.39). Increased work intensity results in increased apathy towards school, increased attendance problems, increased unpreparedness for class and increased value of academic learning. There was a strong negative relationship between apathy towards school and joy of learning (-.50). Increased apathy towards school results in decreased joy of learning.

There was a strong positive relationship between learning behaviors in class and value of academic learning (.51), between learning behaviors in class and joy of learning (.49), and a strong negative relationship between learning behaviors in class and unpreparedness for class (-.47). Increased positive learning behaviors in class results in increased value of learning increased joy of learning, and decreased unpreparedness for class. There was a moderate negative relationship with learning behaviors and school attendance problems (-.32). Increased

positive learning behaviors result in decreased school attendance problems. There was no relationship between preparedness for class and work.

Correlations among Work Intensity and Co and Extracurricular Activities (Table 10)

The results of frequencies on students' level of participation in co-curricular activities, showed that there was very little participation (81.9% of students did not participate in any co-curricular activity). Correlations on the variables associated with co-curricular activities (for example, participation in religious clubs; participation in art or photography; participation in drama clubs) with work intensity showed that there was almost no significance because there was very little variability among the variables in co-curricular activities. However, there was a significant positive relationship with participation in choir or music clubs and participation in intercollegiate sports. Work was later regressed on intercollegiate sports.

Correlations among Work Intensity and Classroom Behavior Variables (Table 11)

In the study, significant effects of what were found on school behaviors but not on classroom behaviors that result in learning. Correlations that were conducted on classroom behaviors (for example, pay attention in class, complete work on time, and do more work than is required) showed that the significant behavior items were those that occurred outside of the classroom: "Review work from the last day" and "learn and memorize work" A composite of the latter two items (extrawork) was computed by finding the sum of the items. The new variable was then regressed on work to determine whether there was significance.

Work during the week increases stress among students. Students with a positive value of work displayed an instrumental value of work. Parent/family relationships were affected by working during the week . Parent/family conflict was not affected very much by week work or

weekend work but by parent and family relationships. This study suggested that work does not always contribute to parent/family conflict and may often be the result of pre-existing differences (Hardesty & Hirsch, 1992). Peer relationship did affect parent and family relations and parent adolescent interaction as was anticipated among adolescents. Peer relationships were affected by week work. Although there was a low level of participation in co-curricular activities, intense work would further reduce participation in intercollegiate sports.

Correlations of Work Intensity and Work Variables (Table12)

There was a weak positive correlation between positive value of work and work (.18). Work related stress correlated positively with work (.18), and positive value of work (.20). Instrumental value of working had a strong positive correlations with positive value of work (.54), and weak correlations with work related stress (.24)and with work (.14).Negative perceptions of work showed a moderate positive correlation with work related stress (.33) and weak negative correlations with positive value of work (-.25) and instrumental value of work (-.15).

Research Question Three

What is the relationship of part-time employment with family and social life?

Correlations among Work Intensity and Parent and Family Relations (Table 13)

There were weak negative correlations between parent and family relationship and work intensity (-.11). Parent adolescent conflict correlated negatively with parent and family relationship (-.28) but showed no relationship with work (-.03). An increase in work intensity results in a decrease in parent and family relationships but had no effect on parent adolescent conflict. Parent adolescent interaction showed a strong positive correlation with parent and

family relationship (.60) and a weak negative correlation with parent adolescent conflict (-.17). An increase in parent adolescent interaction leads to an increase in parent family relationships and a decrease in parent adolescent conflict. There was no significant correlation between parent adolescent interaction and work (-.06).

Correlations among Work Intensity and Peer Relationships (Table 14)

Peer activity showed weak negative correlations with work (-.15). Peer interaction showed a strong positive correlation with peer activity (.60) and a weak negative correlation with work (-.10). Increased work leads to decreased peer activity and an increase in peer interaction. Peer relationship showed a moderate positive correlation with peer activity (.28) and peer engagement (.27) and a weak negative correlation with work. Peer enjoyment showed strong positive relationships with peer interaction (.51), peer activity (.46), and a weak negative relationship with work (-.08). Increased peer relationship leads to increased peer activity and peer engagement while increased work leads to decreased peer relationship. Increased work also leads to decreased peer enjoyment and increased peer enjoyment leads to increased peer interaction and peer activity.

In summary, school engagement, work relations, parent/family relationships, and peer interaction of high school students are all influenced negatively by an increase of part-time work. School attendance, class preparation and classroom behaviors are all affected in varying degrees when students work during the school week. Students who are unprepared for class, do not enjoy school, have high apathy towards school, as well as those who do not value academic learning, tend to have attendance problems.

Table 9

Correlations among Work Intensity and School Engagement (N=831)

	work intensity	weekend work	school attendance problems	unpreparedness for class	value of academic learning	joy of learning	apathy towards school	learning behaviors in class
work intensity	1.00							
weekend work	.45**	1.00						
school attendance problems	.11**	.11**	1.00					
unpreparedness for class	.11**	.15**	.47**	1.00				
value of academic learning	-.09**	-.03	-.19**	-.32**	1.00			
joy of learning	-.07*	-.07*	-.19**	-.32**	.58**	1.00		
apathy towards school	.08*	.06	.14**	.25**	-.39**	-.50**	1.00	
learning behaviors in class	-.062	-.02	-.32**	-.47**	.51**	.49**	-.35**	1.00

*p<.05, **p<.01

Table 10
Correlations among Work Intensity and Co & Extra Curricular Activities (N=800)

	work intensity	weekend work	Photography clubs	religious clubs	drama or dance clubs	forensic or debate clubs	choir or music clubs	cheer-leaders team	political clubs	reading club	magazine club	inter-collegiate sports
work intens-	1.00											
weekend work	.45**	1.00										
photography clubs	-.02	.01	1.00									
religious clubs	-.00	.00	.22**	1.00								
drama or dance clubs	-.02	-.01	.22**	.28**	1.00							
forensics or debate clubs	-.06	-.00	-.27**	.27**	.41**	1.00						
choir or music clubs	-.09*	-.04	.09**	.23**	.26**	.24**	1.00					
cheerleaders team	.01	.05	.17**	.18**	.25**	.29**	.18**	1.00				
political clubs	.05	.10**	.24**	.30**	.32**	.54**	.20**	.34**	1.00			
reading club	.06	.07*	.23**	.27**	.27**	..41**	.17**	.34**	.62**	1.00		
magazine club	.04	.09*	.24**	.23**	.22**	.43**	.15**	.33**	.56**	.77**	1.00	
inter-collegiate clubs	-.09**	-.08*	.09**	.18**	.07**	.10**	.01	.05	.11**	.08**	.06*	1.00

*p<.05, **p<.01

Table 11

Correlations among Work Intensity and *Extrawk (Sum of" learn and memorize" and "review work from the last day" N=800).*

	work intensity	weekend work	Extrawk
work intensity	1.00		
weekend work	.45**	1.00	
Extrawk	-.09**	-.03	1.00

*p<.05, **p<.0

Table 12

Correlations among Work and Work Variables (N=733)

	work intensity	Weekend work	positive value of work	work related stress	instrumental value of working	negative perceptions of work
work intensity	1.00					
weekend work	.45**	1.00				
positive value of work	.18**	.02	1.00			
work related stress	.18**	.14**	.20**	1.00		
instrumental value of working	.14**	.09*	.54**	.24**	1.00	
negative perceptions of work	.04	.06	-.25**	.33**	-.15**	1.00

*p<.05, **p<.01

Table 13

Correlations among Work Intensity and Parent/Family Relationships (N=822)

	work intensity	weekend work	parent and family relationship	parent adolescent conflict	parent adolescent interaction
work intensity	1.00				
weekend work	.45**	1.00			
parent and family relationship	-.11**	-.08*	1.00		
parent adolescent conflict	-.03	-.04	-.28**	1.00	
parent adolescent interaction	-.06	-.03	.60**	-.17**	1.00

*p<.05, **p<.01

Table 14

Correlations among Work and Peer Relationships (N=818)

	work intensity	weekend work	peer activity	peer interaction	peer enjoyment	peer relationship
work intensity	1.00					
weekend work	.45**	1.00				
peer activity	-.15**	-.09*	1.00			
peer interaction	-.10**	-.02	.60**	1.00		
peer enjoyment	-.08**	-.04	.46**	.51**	1.00	
peer relationship	-.11**	-.04	.28**	.39**	.47**	1.00

*p<.05, **p<.01

Regression Analyses

When researchers use correlation procedures they do not attempt to control for selected variables. Regression analyses enable the researcher to control for variables, particularly background variables that may confound results. This researcher has employed hierarchical linear multiple regression to determine the effect of work on study variables.

The Effect of Work Intensity on Grades

Controlling for background variables, hierarchical multiple linear regression analyses were conducted to determine the effects of work intensity on: grades, school engagement factors, and family and peer relationships. Background independent variables, SES, parents' expectations, and students' educational aspirations were used as control variables because they are the major predictors of students' academic success.

Table 15 shows the results of hierarchical linear multiple regression analysis which was conducted to explain the effect of work intensity on grades while controlling for background variables: socio-economic status (SES), parental expectations, and students' educational aspirations. Socio-economic status (SES – mean of parents' education and parents' occupation) was entered in the first step, student's educational expectations was entered in the second step, and number of hours worked in the third step. The results showed a small significant negative effect of working on grades with 1% of the variance in grades explained by work. This means that as work hours increased grades (GPA) decreased.

Effect of Working on School Attendance Problems

Controlling for SES, parent's education, father's expectation, and students' educational expectations, hierarchical linear multiple regression analyses revealed a

small positive significant effect of working on school attendance problems (Table 17). Approximately 1% of the variance in school attendance problems was explained by working. This means that students who work more are likely to have more school attendance problems. School attendance problems include problems involving punctuality, regularity, and showing up for classes.

Table 15

Summary of Hierarchical Regression Analyses for the Effects of Hours Worked Per Week on Grades (N=787)

	Step 1			Step 2			Step 3		
	B	SE B	ß	B	SE B	ß	B	SE B	ß
SES	0.03	0.01	0.25*	0.03	0.01	0.19*	0.03	0.01	0.19*
student's educational expectations				0.22	0.02	0.32*	0.22	0.02	0.31*
hours worked							-0.02	0.01	-0.07*
R^2		0.01			0.15			0.16	

*p<.05

Effect of Working on Unpreparedness for Class

Controlling for SES, father's expectations, mother's expectations, and student's educational expectations, regression analyses results indicated a small significant positive effect of working on unpreparedness for class (Table 16). Approximately 1% of the variance in unpreparedness for class is explained by work. This means that students who work are more likely to be unprepared for class. Unpreparedness for class includes not completing homework, not participating in class, and being tired.

Table 16

Summary of Hierarchical Regression Analyses for the Effects of Hours Worked Per Week on Unpreparedness for Class (N=763)

	Step1			Step 2			Step 3		
	B	SE B	ß	B	SE B	ß	B	SE B	ß
mother's expectations	-0.05	0.03	-0.07	-0.03	0.03	-0.05	-0.04	0.03	-0.06
father's expectations	-0.01	0.03	-0.02	-0.00	0.03	-0.01	0.00	0.03	0.00
SES	-0.00	0.01	-0.03	-0.00	0.01	-0.02	-0.00	0.01	-0.02
student's educational expectations				-0.06	0.03	-0.08	-0.05	0.03	-0.07
hours worked							0.03	0.01	0.08*
R^2		0.01			0.01			0.02	

*p<.05

Table 17

Summary of Hierarchical Regression Analyses for the Effects of Hours Worked Per Week on School Attendance Problems (N=701).

	Step 1			Step 2			Step 3		
	B	SE B	ß	B	SE B	ß	B	SE B	ß
SES	-0.01	0.01	-0.04	-0.01	0.01	-0.04	-0.01	0.01	-0.04
Father's educational expectations	-0.05	0.02	-0.12*	-0.03	0.02	-0.07	-0.03	0.02	-0.06
student's educational expectations				-0.07	0.02	-0.14*	-0.07	0.02	-0.14*
hours worked							0.02	0.01	0.09*
R^2		0.02			0.03			0.04	

*p<.05

Effect of Working on Parent and Family Relationships

After controlling for SES, work had a negative effect on parent/family relationships. Approximately 1% of the variance in parent and family relationships (Table 18) was explained by work. This means that the more intense work leads to less parent and family relationships. Students who work intensely become embedded in work which subtracts considerably from the hours that can socialize, discuss, and connect emotionally with parents and family.

Table 18

Summary of Hierarchical Regression Analyses for the Effects of Hours Worked Per Week on Parent and Family Relationships (N=824)

	Step 1			Step 2		
	B	SE B	ß	B	SE B	ß
SES	0.01	0.00	0.11	0.01	0.00	0.11*
hours worked				-0.02	0.01	-0.11*
R^2		0.01			0.02	

*p<.05

Regression analyses indicated that work had a small negative effect on peer relationship after controlling for SES. Approximately 1% of the variance in peer relationships (Table 19) was explained by work. If students work intensely there will be no time to socialize and connect with peers.

Table 19

Summary of Hierarchical Regression Analyses for the Effects of Hours Worked Per Week on Peer Relationships (N=819).

	Step 1			Step 2		
	B	SEB	ß	B	SEB	ß
SES	0.01	0.00	0.10*	0.01	0.00	0.09*
hours worked				-0.02	0.01	-0.10*
R^2		0.01			0.02	

*p<.05

Effect of Working on Peer Activity

Regression analyses indicated (Table 20) a negative effect of working on peer activity after controlling for SES and student's expectations. The results indicated that 2% of the variance in peer activity was explained by work. Like peer relationships, peer activity is limited by intense work.

Table 20

Summary of Hierarchical Regression Analyses for the Effects of Hours Worked Per Week on Peer Activity (N=797).

	Step 1			Step 2		
	B	SE B	ß	B	SE B	ß
Student's educational expectations	0.22	0.03	0.25*	0.21	0.03	0.23*
hours worked				-0.05	0.01	-0.13*
R^2		0.06			0.08	

*p<.05

Effect of Working on Peer Interaction

After controlling for student's expectations, hierarchical linear regression analyses revealed a small negative significant effect of work on peer interaction (Table 21). Approximately 1% of the variance in peer interaction was explained by working. Hence more work results in less interaction.

Table 21

Summary of Hierarchical Regression Analyses for the Effects of Hours Worked Per Week on Peer Interaction (N=795).

	Step 1			Step 2		
	B	SEB	ß	B	SE B	ß
Student's educational expectations	0.07	0.03	0.09*	0.06	0.03	0.08*
hours worked				-0.03	0.01	-0.13*
R^2		0.01			0.02	

*p<.05

Table 22

Summary of Hierarchical Regression Analyses for the Effects of Hours Worked Per Week on Intercollegiate Sports (N =788)

	Step 1			Step 2		
	B	SE B	ß	B	SE B	ß
Student's educational expectations	0.17	0.06	0.11*	0.16	0.06	0.10*
hours worked				-0.05	0.02	-0.08*
R^2		0.01			0.02	

*p<.05

Hierarchical regression analyses on work and intercollegiate sports while controlling for students' expectations, indicated that week work had a significant negative effect on participation in intercollegiate sports (Table 22). That is, the more students work the less they participate in intercollegiate sports.

The composite variable extrawk is the sum of the two items that reflected learning behaviors that occurred outside of class ("review work from the last day" and "learn and memorize work"). Regression of work on extrawk while controlling for SES, indicated that there was a significant negative effect of work on extrawk. The means that the more students work the less time they have to spend on school related activities outside of class.

Table 23

Summary of Hierarchical Regression Analyses for the Effects of Hours Worked Per Week on Extrawk (Sum of " learn and memorize" and "review work from the last day" N=800).

	Step1			Step 2			Step 3		
	B	SE B	ß	B	SE B	ß	B	SE B	ß
SES	0.02	0.00	0.07*	0.00	0.00	0.03	0.00	0.00	0.03
students' educational expectations				0.22	0.04	0.20*	0.21	0.04	0.19*
hours worked							-0.03	0.01	-0.07*
R^2		0.00			0.04			0.05	

*p<.05

Hierarchical regression analyses were also computed on value of academic learning, joy of learning, non-academic apathy towards school, adolescent interaction, peer relationships, and peer enjoyment. No significant effects were found between work and these variables.

Summary

The regression analyses indicate that for this sample working during the week contributes to small significant effects on many school related variables. Negative significant effects on grades, family relationships, peer relationships, peer activity, and peer interaction imply that an increase in work intensity is likely to lead to a decrease in these variables. Working accounts from 1 to 2 % of the variance in these variables. Positive significant correlations of work with unpreparedness for class and with school attendance problems indicate that the more students work, the more they are unprepared for class and the more school attendance problems they have. Working had no effects on value of academic learning, joy of learning, apathy towards school, parent adolescent conflict and parent adolescent interaction. The more intense students work, the greater the negative effects on school, family and peers.