A STUDY OF THE EFFECTS OF THE FEDERAL COLLEGE WORK-STUDY PROGRAM ON THE ACHIEVEMENT OF FRESHMAN COLLEGE STUDENTS OF THE STATE UNIVERSITY COLLEGE, GENESEO, NEW YORK

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This is to certify that the

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ABSTRACT

A STUDY OF THE EFFECTS OF THE FEDERAL COLLEGE WORK-STUDY PROGRAM ON THE ACHIEVEMENT OF FRESHMAN COLLEGE STUDENTS OF THE STATE UNIVERSITY COLLEGE, GENESEO, NEW YORK

By John William Lavery

The Problem

The primary purpose of this study was to investigate the effects of working part-time under the Federal College Work-Study Program (C.W-S.P.) on the academic achievement of freshmen students of the State University College, Geneseo, New York (S.U.C.--Geneseo).

Few empirical studies concerning the effects of part-time work on academic performance have been conducted because: (a) there has been no effective way to systematize and control work programs, (b) students are very inconsistent in terms of job perseverance, and (c) record keeping has not been centralized in one office. Even fewer studies have been conducted on the effects of working part-time on the achievement of freshmen students, and no research at all on the effects of the C.W-S.P. on the achievement of freshmen students.

There seems to be some inconsistency when on the one hand the federal government is encouraging part-time employment through the packaging (loan, grant and part-time

work) of a financial aids program for needy students; and on the other hand there is no empirical evidence of what effect this part-time employment has on the academic achievement of participating students. It may be that students from lower socio-economic income brackets are being encouraged to work when in fact they may already be at a disadvantage in terms of academic achievement when compared to their non-working peers.

The Sample

The original sample was 216 freshmen students from a population of approximately 450 eligible freshmen students who established a need and requested to participate in S.U.C.--Geneseo's financial aids package program.

Methodology

S.U.C.--Geneseo has a common corps of subjects consisting of 54 semester hours for the first two years of a four year program. The first year (the time in which this study was conducted) is considered a general education program for all freshmen students. Therefore, the cumulative grade point averages (G.P.A.) of all freshmen students at the end of the first year are comparable and not the function of a particular curriculum field.

The 216 freshmen students in the original sample were randomly divided into four groups of 54 students each prior to the packaging of their freshmen financial aids

program for the year. After the students received notices of their packaged aid programs, some requested and were granted permission to not have to work their first year. This resulted in the five, ten, and fifteen hour per week experimental work groups being somewhat smaller in number than the no-work control group. The final sample consisted of 163 students.

The evaluation of the experiment took place directly after the final freshmen marks were posted in June, 1966. The statistical test used to note treatment mean score differences was analysis of variance. The variables measured were: the G.P.A. mean score differences between the working groups and the no-work group, the differences between the four treatments G.P.A. mean scores when parent's gross family income was held constant, and the differences between the four treatment G.P.A. mean scores when sex was held constant.

Results and Conclusions

The results of this study indicate that there is no significant difference between the academic achievement of those students who work part-time and those students who do not work during their freshmen academic year. Nor did the study indicate any significant difference between the four treatment mean scores when the effects of the sex and gross family income variables were removed.

This experiment indicates that freshmen students can work up to 15 hours per week during their freshmen year at S.U.C.--Geneseo with no apparent effects on their academic achievement for that year.

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CHAPTER I

INTRODUCTION

There is considerable speculation that employment can have detrimental effects upon academic achievement. It is conceivable, for example, that a student could work extensively enough so as not to have enough time for classes. This is the extreme but there is also the possibility of retreating from this extreme to the point where factors associated with working part-time operate in favor of academic achievement.

Working students may be more highly motivated than non-working students and in the process learn to budget time and money more effectively. The pride in being able to help earn ones' own way through college could well affect academic standing if the job is adequate to meet the financial need. On the other hand, if the job were not adequate enough to meet the financial need or demanded too much time from studies academic achievement could suffer as a consequence. There is the possibility that part-time employment under varying conditions could have various effects upon academic achievement. Some of the conditions may include: (a) seriousness of need, (b) time required for study, (c) motivation, (d) adjustment to college and work, and (e) time spent at part-time work.

In 1965 the federal government, as one phase of the Higher Education Act (U.S. House of Representatives, 1965) initiated the College Work-Study Program. Through this program the federal government provided sums of money for colleges and universities which would create and initiate new part-time jobs for students who were in need and were from the lower and lower-middle socio-economic income brackets. The purpose was three-fold: (a) to assist students from the lower socio-economic bracket to obtain a college education without unduly burdening themselves and/or their families with heavy loan indebtedness, (b) to provide, where possible, practical on-the-job training in association with the student's academic program, and (c) to provide the college with extra needed assistance in the clerical, research, laboratory, food service, and maintenance areas.

The State University College at Geneseo, New York has participated in the College Work-Study Program from its inception in 1965 and from all outward signs it has been very successful. As a matter of fact it is quite impressive to note the manner in which students have received this new program and even more important their willingness to participate in it when it calls for work on their part. It has also been encouraging to see the enthusiasm and cooperation on the part of all departments on campus to find jobs for students and to provide the necessary direction for student success on the job.

The only reservation at Geneseo regarding the local College Work-Study Program is its unknown effects on student grades. More specifically the unknown effects of part-time work on incoming freshmen who are now being encouraged to work as one part of their financial aids package program (loan, grant and part-time employment).

An explanation of need and need analysis is essential in order to better understand usage of the term "needy student" as utilized in this study. The determination of a financial aids package for each "needy student" is the responsibility of the college financial aids office. The responsibility for need analysis also lies with the college finanacial aids office and this office may elect to choose one of three systematic approaches for analyzing each student's need. One system is the College Scholarship Service and is without question the most efficient and convenient as it is endorsed by the federal government and also relieves the financial aids office of the responsibility of determining need and all of the administrative detail therein. This system has limitations but none to offset the unchallenged acceptability by the government and the relief of the monstrous administrative detail involved in need analysis.

The student forwards his application form directly to College Scholarship Service and after the need is analyzed they forward all records to the college financial aids office where a financial aids package is assembled to meet the

student's need. The financial aids office does not have to accept the College Scholarship Service's analysis of need but any changes or alterations should be verifiable and documented.

The other two systems will be briefly mentioned as they are acceptable and can be utilized effectively for comparative studies. The first to be discussed is the "federal income tax system." For most families in the United States the federal income tax paid bears a relatively direct relationship to the amount of income that the family receives and the unusual expenses that they must pay from their income. The amount of federal income tax paid, therefore, may be used as one basis for determining the amount of money the family can be expected to contribute from income toward meeting the expense of a college education.

Second, the "income system" is also acceptable and here the financial aids office utilizes family income directly for the identification of the family contribution from income. The financial aids officer need only know the families' income and number of dependent children to determine the contribution that may reasonably be expected from the income. A table is available to help determine parent's contribution from net income by size of family. It is reasonable to assume, that after a need is determined by any one of the afore mentioned systems, the student is in need or is a "needy student."

Once need is determined a package is assembled to meet the need for each student. The usual package includes some form of loan (National Defense Student Loan and/or the Federal Guaranteed Loan Program), grant (Economic Opportunity Grant), and part-time work (The College Work-Study Program). It is through this process of packaging that incoming needy freshmen students are being encouraged and actually forced to work part-time during their first academic year in order to help meet the financial cost of their education.

The Problem

Statement of the problem.--What are the effects of part-time work on the academic achievement of needy incoming freshmen students?

The 1965 Higher Education Act, passed by Congress on October 20th, provides a broad program of financial aid to colleges and college students. It represents a major component of President Johnson's "Great Society Program," and is the federal government's first attempt at placing an undergraduate college degree within reach of students from every social class. Title IV, Part C of this act is called the College Work-Study Program. The purpose of this part of the act is to stimulate and promote the part-time employment of students who are in need of such employment in order to pursue courses of study in institutions of higher education, and also it is to assist

colleges and universities to expand their opportunities for part-time employment of students. Special consideration should be given to those students from low income families.

It is interesting to note that, in effect, the College Work-Study Program encourages participating students to work on a part-time basis even during the first semester of their freshman year.

The provisions under which a student may qualify to participate in the College Work-Study Program are:

1. Preferably from a low income family as defined by the new 1965 Higher Education Act.
2. In need of the earnings from such employment in order to pursue a course of study.
3. Capable, in the opinion of the institution, of maintaining good standing in such course of study while employed under the program covered by the agreement.
4. Accepted for enrollment as a full-time student at the institution, or, in the case of the student already enrolled and attending the institution who is in good standing and in full-time attendance as an undergraduate, graduate or professional student.

Federal assistance to colleges is enabling a greater number of students to earn at least part of their own way through college. Incoming students are encouraged to start

part-time employment at the time of entrance to college. What effect does this part-time employment have on the student?

Very few empirical studies concerning the effects of work on the academic performance of students have been conducted. There are many reasons for the absence of such research: (a) there has been no way to systematize and control work programs, (b) students are very inconsistent in terms of job perseverance, (c) college record keeping of part-time employment data has not been centralized in one office, (d) "work" is a compounded term of many variables, all of which are very difficult to control and measure, and (e) the absence of interest on the part of knowledgeable investigators.

Purpose of the study.--The recent federal legislation has made it administratively feasible and educationally more significant to conduct meaningful studies on the effects of student work programs. The federal financial support of assistance programs makes it possible to control factors for experimental purposes which otherwise have been uncontrollable. Job assignments, wages, hours and supervision become amenable to the control of an investigator.

The Financial Aids Office of the State University College, Geneseo, New York has participated in the College Work-Study Program under Title IV, Part C of the Economic Opportunity Act since February 1965. During the 1965-

1966 academic year there were 467 students employed in the program, 216 of which were incoming freshmen.

It is expected that the percentage of incoming freshmen participating in this program will increase significantly during the next several years. The projected increase is due to the increased total number of incoming freshmen; the redefinition of eligibility for participation in the Work-Study Program set forth by the new federal guidelines in the Higher Education Act of December 1965; a more active recruitment campaign by the Admissions Office; and an extensive "workshop" program administered and directed by the financial aids office in cooperation with local county high school counselor associations, with the major emphasis on informing and planning programs for students who otherwise would not be able to attend college.

Significance of the study.--The mere existence of the Federal College Work-Study legislation and the attending investments validate the research significance of the problem. The government recognizes the need to assist students financially with the cost of higher education. This recognition has resulted in the formulation of the National Defense Education Act Loan Program, the Economic Opportunity Grant Program and the College Work-Study Program--(i.e. the "package"). Students eligible for this "package" are in need of part-time employment in order to continue their education and will find it necessary to borrow

heavily through the National Defense Education Loan Program or some other educational loan program. The federal government encourages each participating college to package some combination of the above three programs for all needy students. This package, in a sense, encourages qualified students to work part-time. It can be considered assigned work in the sense that any student who finds it necessary to borrow or ask for assistance will also be encouraged to work part-time to help cover his cost of education. This enables the student to keep heavy loan indebtedness at a bare minimum. However, a student might find that he has to work in order to make ends meet even when his academic standing is suffering. This description of the assigned relationship among these programs is not intended as a criticism but rather is intended to increase awareness of the need to understand the effects that such a program has on students.

Definition of Terms

It is necessary to agree on the meaning of the terminology used in this research proposal. The following operational definitions are pertinent:

Eligible student.--A student who is eligible to participate in the College Work-Study Program. These students come from families where a need, as defined by the financial aids office of the college, exists. Further

breakdown is offered in the General Policy Guides put out by the United States Office of Education and the Higher Education Act of 1965.

Assigned work.--When students are assigned work as part of a financial aid package.

Need.--Assessed and determined by the financial aids office with the assistance of a parent's financial statement, a W-2 form, and/or the College Scholarship Service.

Package.--Some combination of a loan, grant, and part-time employment to assist the student with college costs.

Part-time work.--When a student commits himself to a part-time job under the College Work-Study Program and works either 5, 10, or 15 hours per week over the entire school year--two semesters.

Grade point average (GPA).--This is the semester average that is achieved by a student as determined on a 4 point scale.

Cummulative grade point average (CGPA).--This is the grade point average achieved by the student as determined on a 4 point scale at the end of the freshman year.

Freshman.--A student who is in his first semester of college and is not a transfer from another college.

Other undergraduates.--Any students of undergraduate status other than freshmen.

Basic Hypothesis to be Tested

In an educational setting the Work-Study Program should be assessed, not only with respect to the effects relevant to financial objectives, but also it should be assessed with respect to the effects upon criteria relevant to educational objectives. Herein lies the focal point of this study.

Problem.--The proposed study is designed for the purpose of assessing the effects of part-time work upon the achievement of specific academic objectives: namely, grade point average.

Specific problem.--Specifically the following research hypothesis will be tested:

Hypothesis: Student participation in part-time work will not effect academic achievement based upon the criterion of the cumulative grade point average at the end of the freshman year.

Organization of the Thesis

Chapter II deals with a review of the literature pertinent to the study. The first section explains the absence of relevant studies and reasons for this absence; and the second section reviews studies that relate to part-time work and academic achievement. It is hoped that through this review of previous studies the need for this type of study will be established at a time when student

part-time work opportunities are receiving considerable attention.

Chapter III sets forth the methods and procedures for the study. The instruments used will be described in detail. In this chapter the procedure will be described for selecting the groups for the study. The collection of the data and the treatment of the data are also described.

The analysis of the data will be covered in Chapter IV. The research hypothesis stated in Chapter I is expressed in statistical form in this chapter and tested for significance at the five percent level since this study is considered exploratory in nature.

Chapter V contains the summary and conclusions. From the preceding chapters the influence of part-time work on academic success will be evaluated. Implications for further study in this area will be discussed. This final chapter will present suggestions for further study in the area of student part-time work and academic success.

CHAPTER II

REVIEW OF THE LITERATURE

It is essential that the College Work-Study Program and other types of part-time work programs be viewed in proper perspective before reviewing the research that has been conducted in either or both areas.

A review of the literature concerning the College Work-Study Program as part of the Economic Opportunity Act of 1965 is limited to the outlining and description of the program. This is due primarily to the relative newness of the federal legislation. No research of a scientific nature has been conducted concerning the new program, and for this reason the hypothesis being tested is of added significance.

In order to better understand the effects of part-time employment on academic performance it is necessary to search further to uncover information stressing the success or failure of other regular part-time work programs in relation to the overall planning of student time. As mentioned before, there is a complete absence of scientific research concerning the College Work-Study Program; and a thorough review of the literature reveals that relatively little of a scientific nature has been done to evaluate regular part-time work programs in relation to academic

performance. The reasons for this absence of research are: (a) no way to systematize and control work programs, (b) students are inconsistent in terms of job perseverance, (c) college record-keeping of part-time employment data has not been centralized, (d) work is a compounded term of many variables all of which are difficult to control and measure, (e) the absence of interest on the part of knowledgeable investigators, and (f) very few studies of significance have been conducted at small public colleges--the few that have been tried (for the most part) have been at larger private colleges where the socio-economic factor may be a consideration.

Curtis (1964, pp. 2-3) lists ten essential elements for a good student employment program:

1. The institution's philosophy and operation should be receptive to student work.
2. The employment officer should be either directly responsible to the financial aids director, or have a close working relationship with him.
3. Ideally, one person should be responsible for organizing, supervising and directing student work.
4. An ideal program should consist both of part-time employment during the academic year and full-time employment during the summer.
5. Opportunities to develop new employment skills should be provided through short training programs.
6. Advancement in responsibility, or to more complex and skilled work, accompanied by higher remuneration ought to be available to those who can qualify.

7. Adequate counsel should be available to students in planning their work commitments, particularly during term time.

8. Job opportunities should be adequately and quickly published as they become available.

9. Institutions should not be afraid to adopt experimental approaches in developing student employment opportunities.

10. Packaging, or combining scholarships and loans with campus jobs to meet the needs of students has numerous advantages.

The above comprehensive list of operational procedures is pertinent to the academic achievement of students involved in part-time work. This has been clearly indicated by the results of the Harvard Study on the effect of working on student grades. In his article, Burke (1963, p. 2) answers,

> There is substantial evidence to demonstrate that time devoted to earning money need not detract from a student's academic or extracurricular life if intelligent advice and planning are provided. The following table, for example, compares the grades of working Harvard students and the undergraduate at large.

1961-62 academic performance[1]	Sample of 3,679 undergraduates[2]	Sample of 1,171 working students
Group I	2.6%	2.2%
Group II	15.6%	14.6%
Group III	26.5%	26.9%
Group IV	24.7%	27.5%
Subtotal	69.4%	71.2%
Group V	14.6%	16.5%
Group VI	.8%	.8%
Insufficient	1.0%	.7%
Unsatisfactory	9.1%	10.8%

[1]Group I denotes academic achievement of 3½ A's, ½ B; Group II--1½ A's, 2½ B's; Group III--3½ B's, ½ C; Group IV--1½ B's, 2½ C's; Group V--3½ C's, ½ D; Group VI--3 C's, 1 D; Unsatisfactory--less than 3 C's, 1 D.

[2]Does not include degree candidates in senior class. Figures do not include 5.1% student withdrawals.

The preceding table shows no significant difference even though a slight trend toward working students not achieving as well as non-working students can be noticed.

Contemporary Related Studies

A number of studies specifically focusing on the academic achievement of college students who are employed part-time have yielded various results. Some tend to show detrimental effects of part-time employment, while others reveal no relation between employment and academic success. Still others indicate a trend toward part-time employed students achieving higher academically than non-employed students.

Trueblood (1954) made a survey of the studies concerning this topic. He found seven studies that reported detrimental effects of part-time employment upon academic achievement, nine studies where part-time employed students had better marks than non-employed, and nineteen studies that showed little or no effect of employment upon academic work. He summarized as follows:

> A study of the literature revealed that in most studies investigators have found that employment within itself had no significant effect on academic achievement. Some reports indicated that there was a point beyond which employment did affect academic achievement adversely. This point seemed to be between 15 and 25 hours per week.
>
> The research reports were difficult to evaluate because study procedures were not well planned, in several instances with a noticeable lack of the use of matched groups to measure intellectural factors and the selection of sample groups were not

> carefully explained. As in any project of this nature, the investigator had to be content with reporting what he found in the journals, many of which did not make complete reports.
>
> Two findings which appeared to be beyond question were that the effects of employment on academic achievement have not been absolutely determined, and that little, if any, research, has been undertaken to measure the different effects of employment in the jobs not related to academic objectives. (Trueblood, 1954, pp. 49-50).

Trueblood's study had two primary objectives: (a) to study the effect of current wage earning employment on academic achievement, and (b) to study the effect of academically oriented employment on academic success as compared to non-academic employment's effect on academic success. He divided 334 graduating seniors from the School of Business at Indiana University into an employed group and a non-employed group for comparison purposes. He then subdivided the employed group into those who were employed at jobs that were academically oriented and those that were employed at jobs not academically oriented. Of the 334 students 126 were employed and 208 were not. Fifty nine of the employed students held academically oriented jobs and 67 held jobs not related to their academic objectives. Trueblood carefully analyzed the composition of his groups, the background and other data available. He utilized *t* tests to statistically treat the differences in academic achievement. Trueblood (1954) concluded as follows:

> It was concluded that employment in and of itself did not affect academic achievement positively or negatively at the statistically significant level of one percent. Furthermore, employment

> related to academic objective was concluded to have had no effect on academic achievement which was different from that of employment unrelated to academic objective (p. 152).
>
> An interesting tendency noted, however, was that employment in a job related to academic objective may have a positive effect on academic achievement. The tendency was pronounced enough to merit further investigation (p. 153).

For his doctoral dissertation in 1956, Silver did a study on "The Effect of Self Support Upon Student Success in Walla Walla College." The records of 996 students were utilized to compute interrelations between achievement, high school record, American Council on Education Test scores, hours of work per week, and hours of study per week. He stated ten major conclusions in his study, the most significant for this study were the first three, and in effect they said that the relationship between amount of time spent in work and academic achievement in college is not significant. They read as follows:

1. The results of this study indicate that the college is justified in permitting students to work the number of hours in relation to class load as provided in the Bulletin (college catalogue). This conclusion is supported by the finding that the relationship between amount of time spent in work and achievement in college is not significant. This should not be interpreted to mean that there is no limit to the amount of time a student may spend in work and still do justice to class assignments. It will always be necessary for students and counselors to estimate the amounts of time which should be set aside for classes, study, activities and sleep in working out individual schedules.

2. The results of the study indicate that students who do self-supporting work generally make better use of their time than do non-workers. Furthermore, students apparently do a certain amount of adjusting of class load and work load. It may be that the average student is a better judge of what work load and class load he can carry than is the average counselor. Certainly this study has revealed no formula for determining when a student should reduce his load and when he can safely increase it.

   The statement by Baker that "the weak student with a light load is a more serious problem than the strong student with a heavier load" (1) is supported by the results obtained from the Walla Walla College data. This is worth remembering when counseling a student as to whether he should lighten his work load in order to bring up a low grade point average. The chances are against a decrease in hours of work raising a low grade point average. Because of individual differences some students can raise their grade point averages by spending less time in self-support. Ordinarily when a student has low grades the counselor must look beyond the number of hours spent in work or the class load for the reasons and corrective measures.

3. Students at Walla Walla College who work at jobs related to their courses in school get better grades by more than one-third of a grade point than do those working at unrelated work. The reasons for this are not clear but it is doubtful that students can be assured of raising their grade point averages appreciably by changing to work which is related to their courses in college (Silver, 1956, pp. 118-120).

Budd directed a study in 1954 through the Bureau of Research of Western Washington College of Education. The study included 59 freshmen who received deficiency notices at midterm. The purpose of the study was to determine if part-time employment had a detrimental effect on academic success. The students involved in this study all held off-campus jobs. The number of hours of work, the number

of credit hours deficient, the American Council on Education (A.C.E.) gross scores, and the total number of credit hours carried were the four variables studied. Interrelationships between variables were statistically determined by product-moment coefficient of correlation; and the following conclusions were drawn:

> Outside work and academic adjustment. If it is true that entering freshmen are handicapped in initial adjustment by outside employment, then a positive relationship between the hours worked and the extent of the deficiency would be anticipated. Since $r_{12} = -.038$, this is not the case. Even when ability is held constant, no change occurs and $r_{12.3} = -.038$.
>
> Credit hours and academic adjustment. It might also be anticipated that the heavier the course load a student carried, the more likely he is to receive some deficiencies. Again this is not the case. The coefficient between these two variables is $r_{24} = -.208$.
>
> Ability and academic adjustment. Normally an inverse relationship would be anticipated between ability and academic maladjustment; that is, the brighter students would receive fewer deficiencies. The obtained coefficient was $r_{23} = -.004$. Among the students in this sample, no such relationship exists.
>
> Outside work and academic load. An interesting side issue is the relationship between academic load and the work load of these students. It might be anticipated that in order to carry a normal academic load a student would have to reduce his work or vice versa. The direction of this relationship is substantiated by the obtained coefficient, but not to a significant extent. The computed value was $r_{14} = -.227$.
>
> This study failed to uncover any significant relationships among the variables under study. Freshmen do not appear to be handicapped in the initial academic adjustment by remunerative employment. Neither is the freshman handicapped by the size of this academic load.

> The implications of this study are clear. Academic counselors of freshmen students need not be particularly concerned about the effect of outside work on the new student's adjustment to college. In general, remunerative employment outside of college class hours will not be handicapped (Budd, 1956, pp. 222-223).

A number of studies have been conducted at Southern Illinois University on the effects of part-time employment on academic achievement and these deserve consideration. Three of the studies will be briefly discussed and the fourth will be discussed in detail.

Pepple did a study on, "The Effect of Part-Time Work on Grades," as partial fulfillment for the requirements of a masters degree. He matched 53 part-time workers on the basis of a number of variables with 53 non-workers. The variables were sex, year of birth, major, college, military status, marital status, and type of residence. Grade point averages were predicted for all students in both groups with the aid of a prediction formula. The results showed that the working groups tended to do better than predicted, while the control group tended to score as predicted and in a few cases lower than predicted. He concluded as follows:

> Regardless of the varying opinions concerning the relationship between intellectual attainment and working hours, there seems to be evidence to support the fact that recipients of a reasonable number of hours part-time work attain higher scholastic standing than their peers. This study indicates that the reasonable number of hours is 40 to 60 hours per month. Additional research is recommended with emphasis given to the factor of intelligence in selecting pairs (Pepple, 1949).

During the fall term of 1957, Adams conducted a small study with 29 commercial students, and concluded that there was insufficient evidence to state that employment was a causal factor for higher scholarship, but the results he obtained did warrant further investigation. He noted:

> Grade point average, fall term, 1957 for 20 working students: 3.500.
> Grade point average, fall term, 1957 for 9 non-working students: 3.493.
> Overall grade point average, including fall term, 1957 for 20 working students: 3.612.
> Overall grade point average, including fall term, 1957 for 9 non-working students: 3.286 (Adams, 1957).

Another unpublished study in the research files of Southern Illinois University is one conducted by McIntosh and Zimny (1958). They concluded after comparing the grade point average of 3.414 for 1,420 working students to the over-all university average of 3.337 for the fall term of 1957 that the variance was not enough to be significant. However, there seemed to be a negative trend between grade point average and number of hours worked which would warrant further investigation.

Keene's (1959) study at Southern Illinois University included the total student population on the Carbondale campus for fall term 1958. From a part-time work point of view, the student population was divided into three major groups: (a) students who have no jobs, (b) students who hold off-campus jobs, and (c) students who hold on-campus

jobs. The employed groups were then subdivided into five groups according to hours worked per month. The hour limits were: 1 to 19 hours, 20 to 48 hours, 49 to 79 hours, 80 to 99 hours and 100 hours or more each month. There were two basic parts to the design for assessment purposes: (a) the mean academic average was calculated for each group taken from the average cards (an IBM card for each enrolled student), and (b) random samples were drawn from each group for statistical analysis. These were based upon the characteristics of the distribution of the marks. Analysis of variance was used to assess the statistical significances on the academic achievement of workers and non-workers. The writer made the following two conclusions:

1. Participation in part-time work by students on Southern's Student Work Program (on-campus) does not adversly affect the student's academic achievement.

2. Many factors, including such factors as work experience, motivation, and factors of maturity, affect the academic achievement of students (Keene, 1959, p. 25).

Other Related Studies

Reeder and Newman in a study confined to freshmen men at Ohio State University in 1939 found that the differences in scholarship records between workers and non-workers were insignificant. The correlation between number of hours worked and the grade point average at the end of the first quarter of study was .16. There was also a correlation of .90 between grade point averages for the first quarter and the end of year cumulative grand point averages.

Baker (1941) found that upperclassmen do more outside work than lowerclassmen in a study of 332 students done at Butler University. The correlation between the total work load (outside work and class load) and grade point average was -.09. He concluded that "the weak student with a light load is a more serious problem than the strong student with a heavy load" (Baker, 1941, pp. 28-35).

Clark (1938) equated a group of working students with a non-working group on the basis of the A.C.E. test scores, age, sex, class, and curriculum, and found that the working students as a group made a higher grade point average than the non-workers.

Summary

It seems apparent from the review of studies bearing directly on the relation between part-time employment and academic achievement that they do not produce consistent results; and this is in part due to the varying conditions under which the employment was performed. There is need for systematic research to determine the significant variables and their implications for the organization and supervision of student employment programs.

A significant number of studies reported in the literature are instances that show no detrimental effects of part-time employment on the student's academic achievement. It would seem that under certain conditions students can work part-time with no adverse effects upon their scholastic

standing. There is need to further investigate what these conditions are.

When one reviews the literature a noticeable absence of scientifically controlled experiments is apparent. There has been no attempt made by investigators to control any of the many variables in connection with part-time employment that could well effect academic achievement. The studies reviewed were all post-studies or the data was gathered and analyzed after the student had worked part-time and marks had been posted for the period. Many of the studies included surveys of different types and at best, have limited use. There is need to control some of the many variables in connection with part-time work that could well have an effect on academic achievement.

There is need to further investigate the effects of the College Work-Study Program as a sizeable portion of students participating in the program may be from the lower socio-economic segment of the college population. Sociologists emphasize that socio-economic factors bear much responsibility for the limitations upon equality of educational opportunity. Consequently, college students from low socio-economic families are at a disadvantage, in terms of being successful, even when they enter the college setting. The question then arises--is it wise to encourage students to spend a number of hours each week in part-time

employment while expecting them to compete successfully with other students in the academics who are not equally disadvantaged?

Correlate the question posed with the recent emphasis on encouraging students to participate in the College Work-Study Program and the need for scientific investigation in this specific area is apparent.

> During the first year of operation when Work-Study was under the Economic Opportunity Act and was limited to those with the extremely low family income, many community and college leaders were surprised at the number of students found eligible for the program. They thought that there was no poverty in our area, yet, we found over a third of the students eligible were from families with incomes of less than $3,000 and over 60 percent of the students came from families whose gross income was less than $4,199 per year. The other 40 percent came from families that earned more than $4,199 but due to the size of family, the individuals were qualified for the program. Now with the more leinent need-qualifications tied in, with first priority being given to those individuals who qualify under the old poverty regulations, we feel that this program will expand drastically. Frankly, we are encouraging greater use of the Work-Study Program than our loans or outright grants. For, under the Work-Study Program, the students are not forced into heavy financial indebtedness in order to stay in school, and they are not being given something for nothing (Babbush, 1966, pp. 273-274).

Add to this the significant question of whether it is appropriate to encourage--as part of their financial aids package program--incoming freshmen students to work part-time when adjustment to college and to college life is of central importance. Does the added burden of part-time work effect academic achievement at a time when the student is adjusting to his new environment?

The question--part-time employment in relation to academic achievement--is philosophical in nature. However, the outcome of student grades does lend itself to empirical investigation in terms of student success. The type of research proposed is action research as defined by the Dictionary of Education,

> A firing line or on-the-job type of problem solving or research used by teachers, supervisors, and administrators to improve the quality of their decisions and actions; it seeks more dependable and appropriate means of promoting and evaluating pupil growth in line with specific and general objectives and attempts to improve educational practices without reference to whether the findings would be applicable beyond the group studies (Good, 1959, p. 464).

The expected outcome of the study is for the purpose of developing a body of knowledge to base future decisions on and to develop information for counseling incoming freshmen and other undergraduates who are eligible to participate in the College Work-Study Program.

CHAPTER III

METHODOLOGY AND PROCEDURES

The purpose of this study was to investigate the effects of part-time employment under the Federal College Work-Study Program on the academic achievement of freshmen students at State University College, Geneseo, New York.

Subjects

The population for the study was all freshmen students who were eligible to participate in the Federal College Work-Study Program in 1967. Eligibility was determined in accordance with federal guidelines and substantiated with a Parent's Confidential Financial Statement from the College Scholarship Service of Princeton, New Jersey and Geneseo's own Parent's Financial Statement. Once a need was established a package of financial aid was determined and presented to each eligible student. Each package consisted of some form of loan (National Defense Student Loan and/or Federal Guaranteed Loan), grant (Economic Opportunity Grant), and part-time work (College Work-Study Program). The financial aids office of the college is responsible for creating the package for each student; and the amount of each loan, grant, and part-time work is up to the discretion of the financial aids staff. This puts the financial aids office

in the position of being able to control many variables concerning part-time work which have otherwise not been able to be controlled--such as the number of hours, the type, and the supervision of work.

Approximately one-half or 450 students of the incoming 1965-1966 Freshmen Class (Class of 1969) were eligible to participate in the College Work-Study Program. From this population a sample of 216 students requested and established a need to participate in the package program. These are the subjects that took part in this experiment.

Applications for the package were not evaluated until after the July 1st deadline date. This meant that all applications were in and it was then possible to randomly divide the 216 eligible students into four equal groups of 54 students each before packages were determined. This, however, had to be modified somewhat before fall classes began because a number of students and their parents requested that the student be allowed not to have to work their first year on campus. Their requests were granted resulting in the no-work control group being somewhat larger than the three experimental groups; while the three experimental groups remained relatively the same in number. Eliminating students from the experiment in this manner had the effect of not altering the randomization process of the study.

Treatments:

a. Treatment 1--subjects who did not work during their freshman academic year.
b. Treatment 2--subjects who worked 5 hours per week during their freshman academic year.
c. Treatment 3--subjects who worked 10 hours per week during their freshman academic year.
d. Treatment 4--subjects who worked 15 hours per week during their freshman academic year.

Experimental Design

1. The subjects were divided randomly* into four treatments of 54 students each.
2. The random table of numbers was used in selecting subjects for treatments.
3. The experiment was conducted over one academic year period--2 semesters.
4. All subjects were evaluated on the basis of their cumulative GPA at the end of the academic year.

Statistical Hypothesis:

Hypothesis: H_0; $M_1 = M_2$

Legend: M_1 = No part-time work group mean
M_2 = Part-time work groups mean

*Requests were granted to some students to not have to work during their freshman year. These students were eliminated from the experiment, resulting in treatment 1 having 54 students, treatment 2 having 39 students, treatment 3 having 31 students, and treatment 4 having 39 students.

Alternate Hypothesis: The no part-time work group mean based on the end of year cumulative GPA will exceed that of the part-time work groups.

$H_{1a} : M_1 > M_2$

Legend:

M_1 = No part-time work group mean

M_2 = Part-time work group mean

Measurement

State University College, Geneseo, New York has a common corps of subjects consisting of 54 semester hours for the first two years of a four year program. The first year (the time in which this study was conducted) is considered a general education program for all freshmen students. Therefore, the cumulative averages of all freshmen students at the end of the first year are comparable and not the function of a particular curriculum field.

The evaluation of the experiment took place directly after final freshmen marks were posted in June, 1966.

The statistical test used to note treatment mean score differences was analysis of variance. The following variables were measured:

a. the difference between the cumulative grade point average (GPA) mean scores of those who do not work

and those who work for five, ten, and fifteen hours per week.

b. the difference between the G.P.A. mean scores of the treatments when parent's gross family income was held constant.

c. the difference between the G.P.A. mean scores of the treatments when sex differences were held constant.

Mean Differences Analysis.--The *F* statistic was used in this experiment to test the differences between means rather than the more usual *t* statistic because of the convenience of computer programming. The same conclusions regarding significance can be reached by both methods (Edwards, 1966, p. 146). When testing only two means the size of the larger mean in a significant *F* situation indicates the main contributer to the differences reflected in *F*. However, in testing more than two means a significant *F* merely shows that the variance projected in the data is greater than would be expected by chance. Thus, when more than two means are tested further investigation is necessary to determine the relationship between each pair of variables. As this experiment involved more than two means, and unequal replications, Duncan's New Multiple Range Test (Edwards, 1966, p. 137) as extended by Kramer (1956) could be used to investigate the differential effect of sub-group variables on the total variance represented by the *F* test.

This method allows for ranking group means from high to low, after which the difference between successive pairs-of-means can be tested to determine which ones are statistically significant at a stated level of significance.

A one-way analysis of variance program for unequal frequencies (Ruble, Paulson, and Rafter, 1966) was used to calculate the variance statistics. The approximate significance probability of the F statistic was included in the print-out which allowed the researcher to review the F significance without referring to statistical tables. If, for example, a .05 was noted on the print-out, with appropriate degrees of freedom, it would indicate a level of confidence of .05 or less. On the other hand a .00 on the print-out would indicate a level of confidence of .005 or less.

In order to analyze group gross family income and group sex interaction a two-way analysis of variance program was utilized. This program was designed for unequal N's.

> This description shows how to covert certain analysis of variance or covariance problems into least square problems so that they may be calculated on the least squares (L.S.) routine. This includes problems in which unequal numbers of replicates (i.e. subjects or observations) occur in cells.
>
> Within the capacity limits of the L.S. routine (a) the designs may include any number of factors, (b) any number of variables may serve as covariates, and (c) the calculations may be simultaneously performed for any number of dependent variables.

> The method given in this description does not incorporate explicit interaction effects into the analysis of variance table. . . . Correlation between factors and covariates and correlation among the factors is automatically taken into account by the method of calculation (Ruble, Paulson, and Rafter, 1966, p. 1).

Since the samples were unequal in terms of size, gross family income, and sex ratio an adjusted mean was computed on which to base all F tests. In this manner sample size, income and sex are equalized and accounted for. This F test for testing differences between adjusted means is similar to a two-sided t test except that it also accounts for other experimental factors. It is a test for determining the significance among multiple means. It does not account for the non-independence among the pairs of treatment means and is somewhat prone to Type I error when more than three means are included.

Variable Interactions.--The sex ratio of the student body at large at S.U.C., Geneseo is three girls to one boy. After randomly dividing the sample in this experiment the same ratio of three to one existed for each of the treatments as well as the entire sample.

The income variable was held constant in this experiment, even though it is by federal definition moderately controlled, because large families with better than average gross incomes can be eligible for the C.W.S. Program due to the number of children in the family and not necessarily because of low income.

Summary

A sample of 216 students who established a need to participate in the College Work-Study Program from a population of approximately 450 eligible students were originally involved in this experiment conducted at State University College, Geneseo, New York.

The sample was randomly divided into four groups of 54 students each. Due to requests by students and their parents not to have to work their first year the treatments were unequal in number, but this did not affect the randomness of the study as neither the student nor his family knew they were involved in an experiment. Those who requested not to have to work were eliminated from the experiment completely resulting in a total sample of 163 students. Treatment 1 was the no work control group with 54 students, treatment 2 worked 5 yours per week during the academic year and consisted of 39 students, treatment 3 worked 10 hours per week and consisted of 31 students, treatment 4 worked 15 hours per week and consisted of 39 students.

Evaluation of the study was conducted at the end of the school year and was based upon the cumulative grade point mean score difference between groups. Variances in hours of work, sex difference, and parent's gross income between groups were tested. The statistic used to test for differences between group means was analysis of variance.

CHAPTER IV

ANALYSIS OF DATA

This chapter contains the analysis of the data of the study on all freshmen students at State University College, Geneseo, New York who were eligible to participate in the Federal College Work-Study Program during the 1965-1966 academic year. The sample of 216 eligible students was randomly divided, by using the table of random numbers, into four treatment groups prior to packaging a financial aids program for each student. Each student's financial aid program was packaged after his treatment assignment had been determined. After treatment assignment the remainder of the aid package--including a loan and grant--was assembled according to the determined need. Need determination and packaging was accomplished by the financial aids office at Geneseo with the assistance of the College Scholarship Service needs analysis data form.

During the summer prior to coming on campus for their freshman fall semester, notices of the financial aids package were forwarded to students at their home. After receiving their notice and still prior to the beginning of fall semester a number of students and their parents requested that the student not have to work his first academic

year. Requests were granted to these students which resulted in the no-work control treatment retaining the original number of students and being some-what larger than the three experimental work treatment groups. This did not alter the randomization process of the experiment as neither the students nor their parents knew that they were involved in an experiment. The students requesting no work were eliminated from the experiment.

Table 1 shows the randomly selected treatment, the number of hours assigned and packaged for each treatment, and the ultimate number of students in each treatment after requests to "not work" were granted to some students.

The statistical data for analysis of this experiment is found in Table 2. The computations were obtained at the Michigan State University Computer Laboratory after the necessary data had been key punched on I.B.M. cards.

One-way analysis of variance was the statistical procedure used to measure variable one--the mean cumulative grade point average (G.P.A.) differences between treatments. Variables two and three--sex and gross family income--were measured by two-way analyses of variance. Here an attempt was made to remove the effects of gross family income and sex in order to note whether they had any effects on academic achievement as it might relate to part-time work.

Table 1.--Treatment number, hours worked per week, and sample size.

Treatment	Hours Worked Per Week	Number of Students		
		Male	Female	Total
1	0 (control)	14	40	54
2	5	8	31	39
3	10	7	24	31
4	15	14	25	39
	Total	43	120	163

Differences in Cumulative G.P.A. Mean Scores

The data presented in Table 2 does not indicate that there is a significant cumulative G.P.A. difference between the mean scores of those students who do not work and those students who work five, ten, and fifteen hours per week during their freshman academic year. Nor does Table 2 indicate any significant difference between the four treatment mean scores when the effects of the sex and gross family income variables are removed.

Part-time employment therefore did not hinder the academic achievement of working freshmen students in this experiment. Controlling for the effects of sex and income also indicated that these variables are not a significant factor in assessing the effects of part-time work on the academic achievement of freshmen students at State University College, Geneseo, New York.

Table 2.--Sample size, means, standard deviations, and F statistics comparing the mean between group differences in number of hours worked and cumulative achieved G.P.A. while also controlling for the effects of sex and gross family income.

Variable	N	Mean of A.G.P.A.	Standard Deviation	F			Sig. of F		
				1-way	2-way sex	2-way income	1-way	2-way sex	2-way income
No work	54	2.44	0.52	1.13	1.05	1.17	.34	.37	.32
5 hours	39	2.33	0.48						
10 hours	31	2.53	0.62						
15 hours	39	2.34	0.56						
Totals	163	2.41	0.54						

Summary of data in Table 2

In Table 2 the actual significance levels of the F values are provided rather than merely acceptance or rejection at a predetermined significance level. However, the .05 level was used for acceptance or rejection. The reasons are: (a) this is the manner in which the computer program provides the information, and (b) the reader can make his own judgement as to the importance of the particular F value and its significance.

Table 2 indicates there is no significant difference between the academic achievement of those students who work part-time and those students who do not work at all. It also indicates no apparent effects on academic achievement when the variables of sex and income are held constant.

This experiment indicates that freshmen students can work up to fifteen hours per week during their freshmen year at State University College, Geneseo, New York with no apparent effects on their academic achievement for that year.

CHAPTER V

SUMMARY AND CONCLUSIONS

In this chapter an attempt will be made first, to summarize the problem, the review of literature and the design; second to state the conclusions, and finally to discuss the implications of the results for future research.

Summary

The Problem.--It was the primary purpose of this study to investigate the effects of part-time employment on the academic achievement of freshmen students during their first academic year at State University College, Geneseo, New York.

The effects of part-time employment on academic success has long been a subject of investigation, but until 1965 and the initiation of the Federal College Work-Study Program scientific investigation was extremely difficult due to the lack of adequate controls over working students and part-time work programs. Previous studies were for the most part post studies or conducted after the working period was completed by the students and surveys of the previous work experience were conducted to analyze the effects of part-time work on academic achievement. Very noticeable also is the significant lack of investigation of

the effects of part-time work specifically on incoming freshmen students.

This study had as its basic hypothesis that student participation in part-time work will not effect academic achievement based upon the criterion of the cumulative G.P.A. at the end of the freshmen year.

Relative Research.--Evidence gathered from research studies during the last thirty years indicated clearly that the relationship between part-time employment and academic achievement does not produce consistent results; and this is in part due to the varying conditions under which the employment is performed. There is need for empirical research to determine the significant variables and their implications for the organization and supervision of student employment programs.

A significant number of studies reported in the literature are instances that show no detrimental effects of part-time employment on the student's academic achievement. It would seem that under certain conditions students can work part-time with no adverse effects upon their scholastic standing. There is need to further investigate what these conditions are.

One also notices in reviewing the literature a noticeable absence of scientifically controlled experiments. There has been no attempt to control the many variables in connection with part-time employment that could well effect academic achievement.

A review of the literature concerning the College Work-Study Program as part of the Economic Opportunity Act of 1965 is limited to the outlining and description of the program. This is due primarily to the relative newness of the federal legislation. There is need to further investigate the effects of the College Work-Study Program as a sizable portion of students participating in the program may be from the lower socio-economic segment of the college population. College students from low socio-economic families are at a disadvantage, in terms of being successful, even when they enter the college setting. The question then arises--is it wise to encourage students to spend a number of hours each week in part-time employment while at the same time expecting them to compete successfully with other students in the academics who are not equally disadvantaged?

The term "assigned work" is used because the provisions of the Higher Education Act of 1965 encourage packaging a financial aids program for each student in need including incoming freshmen students. A package would ordinarily include a loan, grant or scholarship, and part-time work which will assist them in meeting the yearly cost of their education. In this manner part-time work is being encouraged or assigned to students participating in the financial aids package program.

Design.--The original sample of 216 students who established a need to participate in the College Work-Study

Program were drawn from a population of approximately 450 eligible students. The sample was originally randomly divided into four equal groups of 54 students each, however, some students were granted requests to not have to work their first academic year resulting in the three experimental groups being somewhat smaller in number than the control group. There were 54 students in treatment 1, the no-work control group; 39 students in treatment 2, the 5 hour work group; 31 students in treatment 3, the 10 hour work group; and 39 students in treatment 4, the 15 hour work group. The total sample consisted of 163 students.

Measurement and evaluation of the study was conducted at the end of the academic year and was based upon the cumulative grade point mean score difference between groups. Variances in hours of work, sex difference, and parent's gross income between groups were tested. The statistic used to measure the variables was analysis of variance.

Conclusions

The results of this study indicate there is no significant difference between the academic achievement of those students who work part-time and those students who do not work at all. The F statistic of 1.13 with a level of .34 is not significant in this study. It fails to reject the hypothesis that the four treatment means are equal.

Nor did the study indicate any significant difference between the four treatment mean scores when the effects of

the sex and gross family income variables were removed. The F statistic of 1.05 with a level of .37 is not significant for the sex variable, and the F statistic of 1.17 with a level of .32 is not significant for the gross family income variable. Therefore, the sex and income variables are not significant factors for increasing the predictive power of the four treatment means.

This experiment indicates that freshmen students can work up to 15 hours per week during their freshmen year at State University College, Geneseo, New York with no apparent effects on their academic achievement for that year.

Implications for the Future

It was not the hope of this study to give final answers to the relationship between part-time work experience and academic success. This study was exploratory in nature and not designed to give such answers. It does suggest, however, some vital concerns and problems and gives a direction for research that may result in their solution. On the basis of the findings of this study certain problems will be outlined and recommendations made for further study.

Prior to noting some of the concerns and problems and then recommendations for their solution it should be emphasized that the initiation of the Federal College Work-Study Program on a nation wide basis has opened wide new vistas for scientific research on part-time employment programs.

For the first time in history interested researchers have a "captive audience" because the federal government is endorsing the packaging of aid programs for all needy students, and included as one portion of this aid package is the College Work-Study Program and part-time employment.

This means that now for the first time adequate controls over working students and work programs can be levied for scientific research purposes. In other words planned empirical studies with control groups are now possible on a broad basis where previously it was near impossible to plan a scientific study with adequate controls. Students can now actually be asked to work a certain number of hours, work on specific types of jobs, be asked to report for counseling, required to keep diaries, and so forth which makes it feasible to adequately control many variables never before possible.

Alligned with this, and again due to the concept of packaging, is the added incentive for institutions to centralize their employment offices in one location which has the effect of systematizing the record keeping and data collection processes for research purposes.

Some areas of concern that need further empirical study are:

1. <u>Identification of specific factors that effect the academic achievement of part-time student workers</u>.-- This problem is of significant importance to student

part-time work programs in all types of institutions. Some of these factors may be interrelated and various combinations of them may have various effects some of which may have greater significance than the single factors themselves. Questions related to these factors and that need answers are: (a) What are the effects of varying amounts of part-time employment on academic achievement? (b) What are the effects of different types of employment on academic achievement? (c) What are the effects of motivation on academic achievement of employed students? (d) What effect do varying amounts of academic load have on part-time employment and academic achievement of student workers? (e) What are the effects of job supervision on the academic achievement of student workers? (f) What effect does aptitude for college work have on academic achievement of working students? (g) Does counseling effect the academic achievement of working students? (h) What effects to varying combinations of the above factors have on the academic achievement of working students?

2. The relationship of part-time employment during degree attainment to permanent employment and job success.--Is work experience as a student valuable in securing and maintaining a permanent job after graduation? What effect does job-related part-time employment have on the academic major and attainment of a permanent job upon graduation from college.

3. The relationship between student part-time employment and participation in extra-curricular activities.--Does student employment restrict participation in extra-curricular

activities and thus deprive the student of valuable out-of-class educational experiences? Is it possible for students to work part-time to substantially support themselves while in college, to also achieve satisfactorily in their academic studies, and yet have time for extra-curricular activities which are also assumed to be educational values of college life?

4. The relationship of student part-time employment to effective and appropriate budgeting of student time and money.--Do students who work part-time while at the same time taking courses and earning a degree learn to budget their time and money more effectively than non-working students, thus allowing more time for other various activities? Is the valuable and often neglected educational experience of budgeting time and money enhanced through a part-time work experience?

5. The relationship between the attitudes of working and non-working regarding work and college life in general.--Is there a difference in attitude between working and non-working students? If there is and assuming it is positive--can a part-time work experience cultivate a positive attitude toward work and college life?

6. The relationship between part-time work experience and its maturing effect upon students.--Is there a maturing effect upon students who are more or less "forced" to work part-time early in life and in so doing learn to establish

definite goals for themselves? If research were to be directed in this area it would be necessary to formulate a precise definition of maturity and this would necessarily include such questions as: (a) What part does a definite goal in life play? (b) What is a realistic outlook on life? (c) What are the attitudes and values of maturity? (d) What is it that gives a person balance and perspective? There is also the possibility that work experience has therapeutic value for the individual.

7. The relationship between part-time employment and dropping out of college.--Are employed students less drop-out prone? There have been studies that have eluded to this possibility but none have received empirical support. If such should be the case the implications would have far-reaching effects for institutions of higher education.

8. The relationship between the College Work-Study Program and other regular part-time work programs.--Does the College Work-Study Program create appropriate additional jobs over and above the regular part-time work program at institutions of higher learning? Through the College Work-Study Program are institutions able to create part-time jobs in accordance with academic programs? To what extent is the College Work-Study Program able to supplement a student's total cost of education? Just how capable are working students on the job, and are they able to perform as adequately as non-students? How effective is the built in counseling aspect of the College Work-Study Program?

There is unique and ample opportunity for researchers interested in the area of student part-time employment programs to do empirical studies in this very new and recent area of part-time employment--the Federal College Work-Study Program. The opportunity is unique because there are now many built in controls never before available which will assist the researcher to do empirical studies. Many variables previously uncontrollable are now able to be adequately manipulated by the researcher. Not only is this new program able to be studied but the research findings in this area will add to the limited body of knowledge of regular part-time employment programs.

A follow-up study is presently being conducted at State University College, Geneseo, New York and includes attempting to control many of the variables previously mentioned in the last section of this chapter. Empirical research of this nature should be an on-going process.

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