1979

The relationship of work-study to the grade point averages of selected students enrolled in Norfolk State College during 1973-1974 through 1976-1977

Alvin Clinton Lomax

*College of William & Mary - School of Education*

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THE RELATIONSHIP OF WORK-STUDY TO THE GRADE
POINT AVERAGES OF SELECTED STUDENTS ENROLLED
IN NORFOLK STATE COLLEGE DURING 1973-1974

THE COLLEGE OF WILLIAM AND MARY IN VIRGINIA,
ED.D., 1979

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A Dissertation
Presented to
the Faculty of the School of Education
College of William and Mary in Virginia

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
Alvin C. Lomax
April 1979
APPROVAL SHEET

We the undersigned do certify that we have read this dissertation and that in our individual opinions it is acceptable in both scope and quality as a dissertation for the degree of Doctor of Education.

Accepted April 24, 1979 by

Donald J. Herrmann, Ph.D.
Chairman, Doctoral Committee

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Armand J. Galfo, Ed.D.
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"THE RELATIONSHIP OF WORK-STUDY TO THE GRADE POINT AVERAGES OF SELECTED STUDENTS ENROLLED IN NORFOLK STATE COLLEGE DURING 1973-1974 THROUGH 1976-1977"
CHAPTER I

INTRODUCTION

A universal objective of the United States system(s) of education is to provide equal access and opportunities for formal education to all in accord with their individual capabilities and limitations, regardless of race, color, religion, sex, or national origin. Implied in this universal objective is the unique involvement of the Federal Government which represents all of the people. It seems both natural and appropriate that the Federal Government should recognize and accept a broad responsibility in education, for an educated citizenry is both a natural and vital resource. It is in the national interest to ensure that the quality of education be of the highest level attainable. For an example, a test of the quality of education emerged in 1957 with the development of the first man-made satellite, "Sputnik," by the Russians. This development challenged all levels of educational endeavors in the United States, and resulted in a near revolution in education.

Operationally, accessibility and equality of educational opportunity are shared responsibilities between the State and Federal Governments. This shared responsibility does not override the plenary power of the states in matters relating to education as implied and
retained by the states during the Constitutional Conventions of the 1780's. Evidence of this shared responsibility is demonstrated through the current programs of state and federally funded student financial aid opportunities in post-secondary educational institutions. These programs of financial aid include grants, scholarships, loans, and employment. Portions of the funds appropriated by the state government(s) are used by state colleges and universities in matching federal dollars allotted eligible institutions for use with the National Direct Student Loan Program and the College Work-Study Program. In Virginia, the General Assembly introduced and passed legislation in 1973, that established a grants program for residents of the State who attend state colleges and universities in the Commonwealth. These funds are matched equally with federal dollars by a state administering agency. This program is known and administered as the College Scholarship Assistance Grants Program (CSAP). The federal dollars used in this program are allotted participating states through the State Student Incentive Grants Program which was introduced by the 1202 Commission through the Higher Education Amendments of 1972. A condensed version of the major federally funded student aid program is presented in Table 1. It is indicated in Table 1 that each of the programs listed has as its expressed or implied purpose that of helping needy students gain access to post-secondary educational institutions, thereby helping to equalize educational opportunities.
Directly related to the programs identified in Table 1 is an account of the funding or proposed funding by the Federal Government outlined in Table 2. Presented also are the trends in funding for each of the four major federally funded student aid programs for the period, 1973-1974 through 1979-1980. Among the trends in funding, it is shown that the funding for the Basic Grants and College Work-Study Programs continues to increase over the period cited, while funding for Supplemental Educational Opportunity Grants and National Direct Student Loan Programs peak about 1974 and then begin to decrease. The Educational Amendments of 1972 tended to supplant all three of the previously existing college-based aid programs—supplemental educational opportunity grants, national direct loans, and college work-study—with the Basic Educational Opportunity Grants Program. However, through positive input from the financial aid community through its regional and national associations, student lobby groups, and persuasive Congressional advocates of student aid funding, subsequent funding for college work-study reflects a continued increase. As indicated in Table 1, the National Direct Student Loan Program was always intended as a beginning point for eligible participating colleges and universities to establish and maintain a revolving type account made possible through the reawarding of loans to new borrowers based on the repayment of loans by previous borrowers. In keeping with the concept of "self-help" which has permeated the funding of student aid programs,
Table 1  
Federally Funded Student Aid Programs, 1965 - 1977

<table>
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<tr>
<th>Federal Program</th>
<th>Authorized Legislation</th>
<th>Provisions - Goals</th>
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<tr>
<td>Ed. Opportunity Grant</td>
<td>Title IV, Higher Ed. Act, 1965</td>
<td>Funds are allotted to eligible colleges and universities for the purpose of making available to eligible students long-term, low interest loans. Such loans are repayable to the institution, nine months after the student leaves the institution. Minimum rate of repayment is $30.00 per month plus 3% interest on unpaid balance. Funds repaid develop into a revolving account for lending institution. First of college based federally funded programs to enhance opportunities beyond high school.</td>
</tr>
<tr>
<td>(Ref. Student Financial Aid Hdbk, 1977-78, pp. 6-1 to 6-17)</td>
<td>PL 92 - 318</td>
<td></td>
</tr>
<tr>
<td>National (Defense) Direct Student Loan (NDSL)</td>
<td>Created as a part of the NDEA of 1958. Legislated by Title IV, Part E of HEA, 1965</td>
<td>Funds are allotted to eligible colleges and universities for the purpose of making available to eligible students long-term, low interest loans. Such loans are repayable to the institution, nine months after the student leaves the institution. Minimum rate of repayment is $30.00 per month plus 3% interest on unpaid balance. Funds repaid develop into a revolving account for lending institution. First of college based federally funded programs to enhance opportunities beyond high school.</td>
</tr>
<tr>
<td>(Ref. Student Financial Aid Hdbk, 1977-78, pp. 8-1 to 8-34)</td>
<td>as amended by PL 94-482.</td>
<td></td>
</tr>
<tr>
<td>US Dept of HEW-Bureau of Student Affairs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Work-Study (CWS)</td>
<td>Created by the Economic Opportunity Act of 1964. H. Ed. Amendment of 1968 (PL 90-575)</td>
<td>Funds allotted to eligible colleges and universities to stimulate and promote part-time employment of eligible students. Such funds are usually awarded to students as a part of the aid package--helping to reduce the need for incurring large indebtedness resulting from loans. Designed to broaden the range of worthwhile job opportunities to eligible students on and off campus; also enhances educational opportunities beyond high school.</td>
</tr>
<tr>
<td>(Ref., Ibid, m 7-1 to 7-38)</td>
<td>transferred the statutory authority for program to H. Ed. Act, 1965. Currently autho-</td>
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<tr>
<td>Basic Educational Opportunity Grants (BEOG)</td>
<td>Authorized by Higher Ed. Amendments of 1972, Title IV, PL 92-318, as amended by Ed. Amendments of 1976.</td>
<td>Funds of entitlement to eligible students. Designed to enhance institutional choice by students and to increase post-secondary educational opportunity. Funds are not to exceed 50% of total educational costs. Available to undergraduate students only, for the time required for the first undergraduate degree.</td>
</tr>
<tr>
<td>(Ref., Ibid., 4-1 to 4-76)</td>
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and the more recent thrust of developing college work-study into a program of expanding classroom experiences, work-study has continued to gain strong support from the Congress. This is evidenced by the increase of funding demonstrated in Table 2.

Guidelines provided by the State and Federal governments concerning these programs of student aid express a determined cooperative investment by both governmental levels to continue to establish programs that will enhance and expand educational accessibility and opportunity to more students, especially those from the lower and middle income groups. Programs of the type like the Basic Grants which are entitlement funds also offer increased choice to eligible students. Such grants, because of their portability—allowing students to enroll in a greater diversity of institutions—tend to help certain institutions remain viable as a result of the funds received directly from the student's grants and also indirectly serves as a base for projecting institutional funding. This diversity accomplished through the thrust for expanding educational accessibility and opportunity also perpetuates the diversity in higher education that is so essential to meeting the needs, interests, abilities, and demands of the American democratic society. Some of the impact induced by the thrust for accessibility is expressed by the Carnegie Commission on Higher Education (1973, p. 9) through the statement -- "higher education has moved from its elite state to its mass stage, and is now moving to the stage of universal accessibility."
Table 2
*Appropriations for Selected Federal Programs, Actual or Estimated, 1973-74 Thru 1974-75 and Recommended, 1975-76 to 1979-80 (In millions of constant 1974 dollars)

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<tbody>
<tr>
<td><strong>Basic Grants</strong></td>
<td>122,000,000</td>
<td>660,000,000</td>
<td>974,000,000</td>
<td>1,288,000,000</td>
<td>1,602,000,000</td>
<td>1,916,000,000</td>
<td>2,230,000,000</td>
<td>8,792,000,000</td>
</tr>
<tr>
<td><strong>Supplemental Grants</strong></td>
<td>210,300,000</td>
<td>260,300,000</td>
<td>212,300,000</td>
<td>184,600,000</td>
<td>156,000,000</td>
<td>128,300,000</td>
<td>100,300,000</td>
<td>1,232,000,000</td>
</tr>
<tr>
<td><strong>Nat'l Direct Loan</strong></td>
<td>400,000,000</td>
<td>400,000,000</td>
<td>400,000,000</td>
<td>400,000,000</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>1,600,000</td>
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<tr>
<td>(Fed. Capital Contr)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>College Work-Study</strong></td>
<td>360,000,000</td>
<td>390,000,000</td>
<td>500,000,000</td>
<td>550,000,000</td>
<td>600,000,000</td>
<td>650,000,000</td>
<td>700,000,000</td>
<td>3,750,000,000</td>
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<td>(Federal dollars)</td>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,092,000,000</td>
<td>1,690,300,000</td>
<td>2,086,000,000</td>
<td>2,422,600,000</td>
<td>2,358,000,000</td>
<td>2,694,300,000</td>
<td>3,030,300,000</td>
<td>15,374,100,000</td>
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As the programs of student aid have expanded in scope, so have the demands for institutional accountability increased. To implement the programs of student aid, institutions are required to establish and maintain policies that are in keeping with state and federal guidelines. Such policies are usually developed by a Financial Aid Advisory Committee. This Committee consists of a balance of faculty, students, and administrators. Categorically, the Financial Aid Advisory Committee develops those policies that relate to (1) an awareness and understanding of the national trends in student financial aid, and (2) the ways such trends may affect the institution. From these broader concerns, the Committee develops and/or examines policies relating to (3) defining the institution's stance on "satisfactory academic promise or progress," (4) criteria used in determining student eligibility for aid, (5) publishing the types of aid available and application procedures, (6) the availability of academic and financial aid counseling, and (7) the prudent use of allotted funds. The Director of Financial Aid and his staff are responsible for implementing the established policies of the institution relating to "open admissions," enrollment expansion, expanded job related opportunities, and increased availability of financial assistance to the increasingly "financially-needy" student population.

Basically, the Director of Financial Aid performs a dual role. He is (1) implementor of policy, and (2) the primary decision-maker
of the disposition to be made of student applications for aid. He is compelled by the scope of the aid operation to be aware of and to implement effective levels of coordination within the institution—ensuring at all times and in all places that the program of student financial aid is adequately and effectively articulated. He is the monitor of the citizens' tax dollars and the state and federal government dollars used to advance and increase student accessibility and opportunity.

Currently in the financial aid community, many differences exist in the policies affecting the selection and subsequent assignment of students to college work-study. For example, there are institutions with policies that (1) deny the awarding of work-study to entering freshmen and transfer students; (2) deny awarding of work-study or other forms of financial aid to students with less than an overall average of "C" or better, regardless of academic classification; (3) restrict work-study awards to students for whom there are available positions related directly to the academic major being pursued; and (4) restrict work-study assignments to students who are housed in on-campus housing, or whose permanent residences are within daily commuting distances of the college, and are otherwise eligible for financial assistance. There are also institutions that do award students with financial need, work-study, without regard for the restrictions identified. Some of the restrictions identified do adversely affect educational accessibility and opportunity, because they tend to deny valuable experience(s) that could
be very valuable as preparation for gainful employment. Historically, the lack of pre-job related experiences has tended to disqualify students pursuing certain majors that are geared to their avocations. Among the students who are most frequently disqualified for employment are those for whom funds are appropriated to enhance their educational accessibility and opportunity, the economically deprived and socially disadvantaged. It appears, therefore, that institutional policies should reflect a professionally sound mix of state and federal guidelines, institutional goals and objectives, prevailing student characteristics, and significant changes in student clientele.

Reflecting upon the absolute importance of creating effective policies--policies that provide eligible students with financial aid to be used in meeting costs to attend college and the financial aid officer with bases for making sound decisions--this study was designed to examine the effectiveness of the college work-study policy used in selecting and assigning students to part-time employment at Norfolk State College during the period, 1973-74 through 1976-77. The study has been conducted in terms of the relationship of grade point averages attained by two groups of students selected from the freshman class in the Fall of 1973. These selected groups of students were designated as Group I ("W"), those students with part-time work-study as an inclusion in their financial aid packages, and Group II ("NW"), those students with financial aid packages without the inclusion of part-time work-study.
Included in the study are those students who (1) enrolled for the first time in the Fall of 1973 and remained enrolled through the Spring Semester, 1977, and (2) received college administered financial aid of some type each year of the study. The institution involved in the study is Norfolk State College, a public four-year college that offers more than fifty different undergraduate bachelor degree programs, eleven associate of arts degree programs, and six masters' level programs. The characteristics of the student population of Norfolk State College reflect (1) approximately 95% non-white, (2) approximately 80% commuters, and (3) approximately 90% potentially eligible students for financial aid of some type based on annual family income and family size. The 292 students included in the study were selected from the student population with the characteristics cited.

Background and Purpose of Study

Since 1957, with the advent of the "Space Age," the processes of education have undergone changes, and continue to undergo changes that are designed to improve the quality and accessibility of education at all levels and to all people. With these changes have come enabling legislation at the State and Federal Government levels. Such legislation aims to provide increased funding ("joint" or matched) for special programs for the gifted, the slow learner, the culturally-economically-educationally deprived, the pre-schoolers ("Headstart"); plant and institutional expansion and development; curricular innovations, i.e.
man-power training and retraining programs for the unskilled and unemployed---lifelong learning. Funds have been appropriated for the creation of study commissions designed to: (1) identify and/or to diagnose learning problems among students at all academic levels; and (2) evaluate and/or translate educational objectives for and to the community, state and nation. Collectively, these commissions are charged with identifying the social institution(s) that are best equipped to implement such objectives.

Educational objectives, like those identified, function to (1) translate society's values, needs, interests and prejudices from generation to generation; (2) introduce changes and procedures for implementing change, often a stabilizing factor; and (3) assist individuals in modifying their attitudes, appreciations, skills, and understandings, and in acquiring acceptable behavioral patterns.

Although educational objectives tend to direct education expansion, matters relating to funding and sources of funding often become more directive. The present era of educational expansion has been affected by financial matters relating to the level of state vs federal share(s) in the funding of certain programs; the types of programs to be funded and for how long; the administrative and financial capability at the local level once federal funding is terminated. Applicable to this study is the area of legislation affecting the financing of higher education especially as it relates to federal programs of financial aid to students.
Landmark legislation, in this area, came with the Higher Education Amendments of 1972 and 1976 as cited by the Carnegie Council on Policy Studies in Higher Education (1975). These Amendments introduced the Basic Educational Opportunity Grants Programs (BEOG), and the inclusion of the "needs" test for the Guaranteed Student Loan Program (GSL). These Amendments provided for the continued funding of the College-Based Programs (funds allotted to institutions by the Federal Government for direct administration) including the National Direct Student Loan Program (NDSL), the Supplemental Educational Opportunity Grants Program (SEOG), the Nursing Scholarship and Loan Program (NS/NLP), and the College Work-Study Program (CWSP). Resulting from these aid programs, provisions were made for an increasing number of students from low income families ($0 to $6,000 per year) and from educationally deprived areas to pursue post-secondary educational experiences in public and private colleges and universities and proprietary institutions throughout the United States. In a special study conducted by Atelsek and Gomberg (1977) which identified certain characteristics of students receiving selected forms of federally funded student aid in academic year 1976-77, they reported that (1) 54.2% of all students in public four-year colleges who received BEOG were minorities and 42.9% of the BEOG recipients in all types of post-secondary educational institutions were minorities; (2) 29.2% of the students in public four-year colleges awarded college work-study
were minorities compared with 29.3% of the college work-study recipients in all types of post-secondary educational institutions being minorities.

Atelsek and Gomberg (1977) reported that students from income situations ranging between $0.00 and $6,000, received 29.4% of the BEOG awarded students in public four-year colleges compared with 30.0% of the students awarded BEOG in all types of colleges. For the same income range, 21.3% of the college work-students in public four-year colleges received work-study compared with 19.2% of the students in all types of post-secondary institutions. All higher income ranges revealed progressively fewer students being awarded BEOG and/or CWS. This study by Atelsek and Gomberg is one example of the Federal Government's intent to increase educational accessibility with opportunity for students from low income situations.

With increased state and federal funding to enhance educational accessibility and opportunity have come issues of accountability of the post-secondary educational institutions and students to the funding agencies, and the funding agencies to the legislators and general public. The Higher Education Amendments of 1976 places special responsibilities on fund-receiving agencies for providing students and interested persons with consumer information. The categories of the consumer education "mandate" tend to characterize "fund-receiver" agencies in terms of (1) curricular offerings and their applicability to
the current and future job market; (2) recruitment and admissions policies and practices—whether those recruited and admitted could benefit from existing curricula offerings and experiences; (3) whether the results demonstrated, academically and employment-wise, of those from low and deprived income levels justified continued funding of the aid programs, especially college work-study; (4) the availability of data regarding retention of students at the institution; (5) the availability of clearly defined statements of the rights and responsibilities of students receiving financial aid; (6) the availability of information concerning application procedures for the student assistance programs and standards used to determine eligibility; (7) the responsibilities and conditions of any employment which is offered as part of the financial aid package; and (8) trends in enrollment practices of racially minority students and those from low and educationally limited situations. These and other details of accountability are described in Student Financial Aid Handbook: 1977-78 as published by the US Department of Health, Education and Welfare, Office of Education, Bureau of Student Financial Assistance (pp. 3-1 to 3-9).

Perhaps the issues of accountability emerged because federal programs of financial aid have been designed primarily to assist students from low income situations in meeting educational costs, as a result the expense has affected taxpayers of all income levels. Many more racially minority (Black) students benefit from these programs
than do non-Blacks, because a disproportionate number of the economically deprived are minorities. For example, according to Atelsek and Gomberg (1977), of the 43.0% minorities receiving BEOG in all colleges and universities in 1976-77, 69.0% were Black. Atelsek and Gomberg (1977) stated further that "35.0% of all aid recipients were minority students, ranging from 49.0% of the recipients at public colleges (mainly two-year colleges), to 17.0% at private colleges (mainly two-year colleges) (Atelsek and Gomberg, p. v)...29.0% of the nearly 700,000 students in the work-study program in 1976-77 were minority group members (Atelsek and Gomberg, p. vi).

Although historically Black institutions receive indirect benefits through student aid programs, these institutions have done an effective job in preparing their graduates for advanced study and gainful employment (Berry, 1954). Much of the success beyond academic preparation for employment has been afforded through work-study opportunities on and off-campus, but funded by the Federal Government. According to statistics released by a study-group of the National Black Caucus in the Fall of 1978, approximately 70% of all Blacks enrolled in higher education are enrolled in predominantly non-Black institutions, leaving 30% enrolled in the historically Black colleges and universities. The statistics revealed further that historically Black colleges and universities continue to produce better than 75% of the Black college graduates.
In the State of Virginia, Norfolk State College, a predominantly Black public four-year institution, has been successful in providing its graduates with professionally sound educational experiences as evidenced by the large number who receive gainful employment and those who are successful in graduate school. As has been stated, Norfolk State College offers a variety of undergraduate degree programs and is expanding its graduate program offerings. It is equally effective because of its deep commitment to service oriented programs of community, state and national magnitude. In addition, it offers a variety of educational experiences through its Evening College and Continuing Education programs to its student population of approximately 7,200 and to other interested groups. The faculty and administration of Norfolk State represent a racial mix of approximately 40% non-Blacks of varying racial and national origins. Integration of the student body shows a racial mix of approximately 95% Black and 5% non-Black, though its policy of admissions has never denied admission to students because of race, color, sex, or national origin. Approximately 65% of the students at Norfolk State College receive financial aid of some type each academic year. In the graduating classes of 1975-76 and 1976-77 more than 90% of the graduates had received some type of financial aid during their enrollment in Norfolk State College. With the newly legislated federal program of expanded student aid (Higher Education Amendments of 1978) it is conceivable that nearly all
students enrolling in Norfolk State College could qualify for financial aid of some type.

Presently, some parts of the financial aid policy employed in the implementation of the financial aid program at Norfolk State College, appear to affect the awarding of certain types of aid to certain students. These implied restrictions have been derived from the latitude of discretionary action afforded the institution by the state and federal guidelines. The type of aid most frequently affected by the aid policy is college work-study which is awarded to students based on academic classification and grade point average, and financial need. Once verification of need and academic classification have been determined, work-study is awarded primarily to sophomores and upperclassmen who have demonstrated satisfactory academic promise or progress. A limited number of freshmen who meet the same criteria as other students are selected and placed on college work-study. Priority is given in the selection of work-study students to those with need, college board scores of 650+, and rank in the upper half of the graduating class from high school. Students are also selected on the basis of residency (status) -- commuters and non-commuters, while meeting other criteria of eligibility previously identified. These restrictions are somewhat relieved during the summer months when more positions are available and students are restricted to full-time employment and part-time study, or no study -- depending upon the work assignment and work
schedule. Based on a review of the evaluations rendered on student workers during the summer months and some of the low achievers during the academic year, supervisors rated approximately 40% of the low achievers very high in the performance of their job assignments.

Recognizing the magnitude of the financial aid program of Norfolk State College and the implied need for evaluating its policies of implementation, it has been the purpose of this study to determine "The Relationship of College Work-Study to the Grade Point Average of Selected Students Enrolled in Norfolk State College During the Period, 1973-74 through 1976-77."

An Overview of the Study

Because of legislative concerns for the financially needy students and their accessibility to higher education, and because of the basis upon which funds are allocated to colleges and universities, it would be expected that volumes of research directed toward the impact of college imposed work-study on the academic achievement of students would be available. It would be expected also that a review of the literature would reveal studies conducted to compare the academic achievement of students on work-study with those students not on work-study but receiving other forms of financial aid. An examination of the literature revealed very limited studies related to this investigation. What seems to be needed, then, in keeping with the Higher Education Amendments of 1976 (which stressed, among other concerns, the
importance of expanding the accessibility and opportunities for higher education, especially for those students from low financial situations) is an assessment of the relationship of college work-study to the grade point average of students. Hence, the purpose of this study has been to determine the relationship, if any, of work-study to the grade point averages of students enrolled in Norfolk State College during the period, 1973-74 through 1976-77. In addition, the study attempted to determine whether (1) the grade point averages of students are affected by college work-study; (2) the grade point averages of students are related to differences in family income; (3) the grade point averages of students are related to differences in rank in high school graduating class; (4) students with college board scores of 650 or better who work will have lower grade point averages than students of similar scores who do not work but have other forms of financial aid; (5) the grade point averages of students on college work-study will differ significantly because of academic classification (freshmen, sophomores, juniors, seniors); (6) academic major makes a difference in student grade point averages of students; and (7) total college board scores and rank in high school graduating class are positive predictors of grade point averages attained by students on work-study. The study, therefore, investigated the relationship of work-study to the grade point averages of students and the interrelationship of income levels, rank in high school graduating class, total college board scores, and related the academic
major to the grade point averages. The same variables were investigated in relationship to the grade point averages of students not on work-study who received other forms of financial aid for the period, 1973-74 through 1976-77.

**Hypothesis Associated with Study**

In conducting this study, the following hypotheses that reflected the literature reviewed and the policies related to the selecting and assigning of students to part-time college work-study were presented:

**H_1** The GPA of students on part-time college work-study will be equal to or greater than the GPA of those students not on part-time college work-study, but receiving other forms of financial aid.

**H_2** The GPA of freshmen work-study students will be equal to or greater than the GPA of freshmen non-work-study students who received other forms of financial aid.

**H_3** The cumulative GPA of part-time work-study students in the fourth year of the study will be equal to or greater than the GPA of non-work-study students in the fourth year of study.

**H_4** The GPA of part-time work-study students with academic majors in Business (1), Education (2), Humanities (3), or the Natural Sciences and Technology (4) will be equal to or greater than the GPA of non-work-study students in the same academic major.

**H_5** The means for Total College Board Scores of students on
part-time college work-study will be equal to or greater than the mean for the Total College Board Scores of non-work-study students.

\[ H_6 \] The means of Rank in High School Class of students on part-time college work-study will be equal to or greater than the mean for the Rank in High School of non-work-study students.

\[ H_7 \] The means for Family Income of students on part-time college work-study will be equal to or greater than the mean for the Family Income of non-work-study students.

Definitions, Assumptions, and Limitations

Definitions

1. **Aid recipient** describes that student enrolled full-time and authorized to receive monetary assistance in the form of a grant, loan, employment, scholarship or any combination thereof for an academic year.

2. **Educational budget** identifies the proposed average costs per academic year for tuition and fees, room and board, books and supplies, personal, and travel.

3. **Financial aid package** describes the combinations of grants, loans, employment, and scholarships awarded eligible students for use in meeting educational cost.

4. **Grant** describes financial aid awarded eligible students, based on need, a gift-type aid; no repayment required. It includes funds available through the Basic Educational Opportunity Grants (BEOG)
Program, the Supplemental Educational Opportunity Grants (SEOG) Program, and the College Scholarship Assistance (CSAP) Program (The Commonwealth of Virginia's grants program to Virginia residents with verified financial need).

5. **Loan** is the type of aid that requires repayment in cash with interest, or in services of restricted kinds. It includes the National Direct Student Loan (NDSL) program, the Guaranteed Student Loan (GSL) or the Federally Insured Student Loan Program (FISL), Nursing Loan Program (NSL), and the Virginia Education Loan Authority (VELA) Program.

6. **Need** describes the unmet costs expressed in the student's budget or the remaining costs after applying available resources to the costs or college budget. Need is determined by comparing the family and student's financial resources with the cost to attend college for one academic year.

7. **Positive predicative relationship** describes the measurable effects of total college board scores (TCBS), rank in high school graduating class (RHS), family income (INC), academic major and part-time college work-study on the GPA of students included in this study.

8. **Resources** describe those expected monetary sources available to the student in meeting educational costs. Included are such funds as expected family contribution, savings from summer and/
or part-time employment, social security benefits, welfare or social services assistance for educational purposes, veterans' benefits, benefits for dependents of veterans, special scholarship funds.

9. Scholarship describes the Commonwealth of Virginia's funds allotted to its public colleges to be awarded students with verified need and are domiciled in Virginia. Such students to be eligible must demonstrate satisfactory academic promise or progress and enroll full-time each semester or for all periods the scholarship is awarded.

10. Work-study describes the employment of a full-time student by the college or contracted off-campus agency for twelve to fifteen clock hours per week.

Assumptions

1. It is assumed that the population used in this study is representative of the total student population awarded financial aid during the period of the study. This assumption is based upon the fact that students awarded financial aid must meet the same basic eligibility criteria--verified financial need, satisfactory academic promise or progress. In addition those students selected for college work-study are required to have TCBS of 650+ and rank in the top 50% of high school graduating class.

2. Since all students awarded college work-study met the same eligibility criteria, then all students on college work-study should
have possessed very similar characteristics and should have earned similar GPA's.

**Delimitations**

The study is limited to those students who enrolled with financial aid awards in the Fall of 1973, and remained at Norfolk State College on a full-time basis (12 semester hours or more) for the next seven semesters. The study is further limited to freshmen in the Fall of 1973 who returned in subsequent semesters. Work-study students are those assigned positions on campus and at a local hospital adjacent to the campus, which is not any farther away than any other on-campus assignment. None of the students enrolled part-time were included in the study, nor were there students awarded financial aid in the form of college work-study who enrolled part-time. The two groups of students selected for the study were those enrolled as freshmen in the Fall of 1973 and remained enrolled with financial aid packages for the duration of the study. The selection process entailed eliminating from the list of all freshmen who enrolled in the Fall of 1973 with financial aid, those students who did not return or returned but without aid or returned part-time. Students in two-year programs were excluded also.
CHAPTER II

REVIEW OF THE LITERATURE

Student financial aid is of paramount importance to students in gaining access to post-secondary educational opportunities, for it is through the availability of grants, loans, scholarships, and employment that students from low and moderate income situations are able to begin and to continue their educational preparation. From these funds students can pay all or major portions of their educational costs, and receive valuable employment experiences that may be career related.

To parents, student financial aid helps to lessen their financial obligations while still affording opportunities to expand the formal education of their children. Parents may also view financial aid as a kind of reciprocity for their investment through taxation.

To elected governmental officials, student financial aid represents an investment of taxpayers' dollars in security for the future of the Nation and helps to fulfill the national goal of "equality of opportunity." In the 1970's funding for higher education represents one of the major priorities in the national budget. This priority, in part, is demonstrated through the growth in student aid funding presented in "The Annual Evaluation Report on Programs Administered by the U.S.
Office of Education: FY 1975" published by Education Resources Division, Capitol Publications, Incorporated. The Federal Government, according to the "Annual Evaluation Report, FY 1975," appropriated for Academic Year, 1973-74, approximately $884,300,000 in the form of grants (Basic Educational Opportunity and Supplemental Educational Opportunity Grants), loans (federal capital contribution for the National Direct Student Loan Program), and the federal capital contribution for college work-study. In the same report (Annual Evaluation Report, FY 1975), approximately $1,680,100,000 was appropriated for the four designated student financial aid programs for the Academic Year, 1976-77; an increase over Academic Year, 1973-74, of approximately 100%. With the increase in federal funding for student aid programs have come pressures for state governments to increase their support of student aid sources. In partial response to the pressures for increased state support of the student aid program, the Commonwealth of Virginia, in Academic Year, 1973-74, initiated a program, of grants and loans for eligible Virginia students to attend colleges and universities in the Commonwealth. These state programs have not been funded at the level afforded by the Federal Government, nor has the rate of growth in proportional funding been equivalent to that of the Federal Government. There has been an offsetting positive factor of accessibility accomplished through the growth of the Commonwealth's Community College System. Development of funding for student aid
programs and expanding opportunities through community colleges for post-secondary educational preparation do represent the response(s) of elected political officials for the support of higher education.

To educators, student financial aid helps to expand educational accessibility and opportunity to many more deserving citizens. For it is through the availability of student aid that institutions may attract students and help to maintain certain levels of enrollment, which will in turn influence institutional funding and/or appropriations. For certain types of institutions, student aid represents a significant source of continued competition and/or survival. Institutions that attract large numbers of students from financially needy situations would be an example of the types of institutions in which competition and/or survival may be heavily dependent upon student aid. This does not mean, however, that such institutions are not essential to fulfilling the needed diversity in higher education.

With the availability of funds to colleges and universities for use in helping eligible (financially needy) students to begin and continue their educational objectives have come guidelines from donors indicating how such funds are to be used. Guidelines from the two major donors to the student aid program, the State and Federal Governments, are fairly specific as to intent of the programs--that of helping needy and deserving students in meeting college costs. These guidelines do, however, provide flexibility to the institution in deter-
mining student eligibility as it relates to "satisfactory academic progress" (as determined by the institution). Institutions are required to establish and maintain written policies for implementing the programs of student aid. Such policies must be as consistently implemented as legal sanction may dictate. It is within the area of institutional policy that concern is expressed by students, parents, elected officials, and institutional personnel of how students are selected for financial aid, especially college work-study which constitutes approximately 25% of all federal forms of student aid (Cited in "Annual Evaluation Report, FY 1975"). Practices of student selection vary within and among institutions based on such criteria as academic classification, institutional interpretation of "satisfactory academic progress or promise," resident or non-resident status, and academic major or department. All of these practices have degrees of merit; some may be more uniquely applied on the bases of institutional type, numbers and types of applicants, and the availability of other types of student aid.

It is then within the area of institutional policy affecting the implementation of college work-study that the search of the literature has been pursued. Specifically, the literature has been reviewed in terms of published and unpublished studies relating to (1) the origin and purposes of student financial aid, in particular federally sponsored college work-study; (2) institutional responsibility for implementing
college work-study; (3) implications for job classification and the college work-study program; (4) impact of job relatedness to academic major; and (5) the effects of college imposed work-study on the academic achievement of students.

Origin and Purposes of Student Financial Aid--Emphasis on College work-Study

Organized programs of student financial aid came with the National Defense Education Act of 1958, and represented a new unit in the administrative structure of colleges and universities. In the 1970's organized programs of student financial aid are still seeking permanent places of "abode" with all of the rights and privileges of other comparable educational administrative units within colleges and universities. Prior to 1958, most colleges and universities designated financial aid as an adjunct responsibility for the admissions officer, the registrar, the institutional recruiter, the business manager or his designee, or the scholarship officer.

Although programs of financial aid are relatively new, historically institutions of higher education have provided students with various types of assistance, scholarships and employment opportunities on and off campus being the most frequently used types of aid. Perspectives on Financial Aid, a publication of College Entrance Examination Board, states that "student aid reflects a period of about 300 years of unorganized and organized efforts to satisfy institutional
goals and usually always national concerns related to the growth and development of a constantly and often rapidly changing nation" (Perspectives, p. 1). For an example, during the Jacksonian era, according to Perspectives (1975), "every conceivable type of task provided opportunities for student support including the actual building of the college, waiting on tables, tending the fields from which food for the college's students came, as well as the teaching of fellow students" (p. 3).

Subsequent to the Jacksonian Era was the Civil War period in which student aid came from one of two sources, primarily low-cost tuition or no tuition charge(s) at public institutions, and/or jobs of various types depending upon the orientation of the institution, and available funds. Students received awards including work-study because of their athletic ability, musical talent, beauty, brains, professional interests, etc. The aid awarded continued as long as the recipients' special interests and talents held out. Aid of the types identified characterized the period following the Civil War until about 1945. These practices of distribution, in some cases, prevailed into the 1970's. (Perspectives, pp. 3-4.)

Current trends in the development of student aid programs emerged with the Veteran's Adjustment Act (GI Bill) of 1945, which followed World War II. This was the first overt effort in modern history to reflect greater involvement of the Federal Government in
matters relating to higher education, especially student assistance. The college-going pressure and promise of the early and mid-1950's was to get a better job and earn more money. *Perspectives* (p. 6) state that "repeated studies had shown that with every year of additional schooling above the twelfth grade total lifetime income increased by thousands of dollars."

By the early 1960's, it was an established fact, according to *Perspectives* (1975), that the major ethnic minority groups of the United States had been excluded from higher education for reasons of both poverty and prejudice (p. 99). These practices denied this segment of society equal access to education and to subsequent gainful employment. The attitudes of college officials toward the major racial and ethnic minorities did not begin to change significantly until enabling legislation set the state for accommodating the increasing demands for access to post-secondary education by the major racial and ethnic minority-groups, which resulted in shifts in institutional admissions policies and curricular offerings.

Emerging out of the enabling legislation of 1964 was concern for expanding sources for the student aid program; designed to attract and assist most minority students in gaining access to post-secondary education. One such program was College Work-Study. It was originally a part of the Economic Opportunity Act of 1964 (Public Law 88-452), and was designed to "mobilize the human and financial
resources of the Nation to combat poverty in the United States. In its original form it was primarily a measure to improve the general economy with important but not exclusive emphasis on higher education (Perspectives, p. 99)." Significant, however, was the implication that one's educational level does impact his economic opportunities. Such was the point of view supported in a study by the Survey Research Center of the Institute for Social Research at the University of Michigan (Morgan, David and Brazer, 1962) which "showed that one of the most significant factors in the transmission of poverty from generation to generation is inadequacy of education." This study, "Income and Welfare in the United States" (Chapters 23 and 24), reported the following conclusions:

1. Education and occupation jointly determine the stability of... employment and... future projects.

2. Seventy-two percent of these with training beyond high school report that they would have a good chance of finding another job that pays about the same if they should lose their present job.

3. The education of the father was by far the most significant determinant of the level of education received by the child. (Cited in Perspectives, p. 89.)

In October, 1976, the Higher Education Amendments revised student aid relating to institutional and student eligibility. These Amendments identified new legislative provisions designed to tighten up on institutional administration of student aid programs, to protect the student consumer and to improve student information services. The
Commissioner of Education (U.S. Office of Education) was given authority to limit, suspend or terminate the eligibility of an institution to participate in any of the federally funded programs of student aid included under Title IV of the Higher Education Amendments as cited in the Student Aid 1977-78 Handbook (Chapter 3, pp. 4, 6 thru 6-6) and published by the U. S. Department of Health, Education, and Welfare, Office of Education, Bureau of Student Financial Assistance. Conditions for "LST," as cited in Aid Handbook, may include "substantial misrepresentation" by the institution of the "nature of its educational programs, its financial charges, or the employability of its graduates."

In a report from the U. S. Office of Education in October, 1976, and distributed to Financial Aid Administrators of all colleges and universities, states that work-study under the 1976 Higher Education Amendments "provides that no student's college work-study employment shall be terminated because income derived from outside employment together with income from college work-study (CWS) exceeds the student's documented need, but that when such excess income reaches $200 or more there may be no further Federal subsidy of the work-study employee." Basically, CWS remained as a source of helping students to meet on-going educational costs through employment on and off-campus, in which 80% of the gross earnings are provided in Federal dollars with a 20% match from the employing agency. Students are not to be employed to replace or to fill an established
position for a salaried employee. Eligible students are selected on the basis of financial "need" and "satisfactory academic promise or progress." To determine financial "need," the institution must follow a uniform needs analysis system that will require certain kinds of data to be submitted on a common form for an analysis to be made to reflect the family's potential for meeting the student's educational costs; the same kinds of data will be required of all applicants and the processing procedure for determining the family's potentials for meeting the student's costs will be the same for all applicants. Each institution must establish in writing its policy defining "satisfactory academic promise or progress" (p. 3 of Financial Aid Handbook). Generally if a student is permitted to return to an institution or to be admitted to an institution, he may be considered as having satisfied the institutional policy defining "satisfactory promise or progress." In some institutions this becomes a very sensitive area, because if overly flexible it may be interpreted by donor sources as a basis for student "misuse or abuse."

In summary, it appears that the purposes of College Work-Study (CWS) are (1) to provide a regular source of income for eligible students to be used in meeting educational costs, (2) to provide work assignments that as nearly as possible reflect realistic employment conditions, (3) to provide students with work experiences that are related to career preparation, (4) to assist students in identifying future career opportunities through counseling and appropriate follow-
up activities and experiences, (5) to assist students in developing saleable skills and contacts for future employment, (6) to provide students with opportunities reflecting appropriate actions when seeking employment, and (7) to assist students in developing or refining budgetary-management skills.

**Institutional Responsibilities for Implementing College Work-Study**

Every college or university desiring to use CWS funds appropriated by the Federal Government must sign a "Terms of Agreement" which stipulates that the institution will administer the program in accord with certain standards. As re-stated in *Perspectives* (1975, p. 100) each institution shall:

1. Maintain adequate records reflecting transactions under all programs of aid
2. Retain such records as prescribed by the U. S. Commissioner of Education
3. Submit annual "Institutional Fiscal Operations Reports" (Modified in August, 1978 to include a combinational of Fiscal Operations Report and Institutional Application for Federally Funded Student Aid)
4. Insure the accuracy of all records
5. Not spend funds subsequent to the cutoff date of filing of the Fiscal Report
6. Use a systematic and approved method of need analysis (such as the College Scholarship Services)
7. Establish procedures for making aid available (reasonably) to all eligible students
8. Ascertain the student's eligibility including: citizenship status, half-time or more student status, capacity to maintain good standing, financial need

9. Require the student to file an affidavit stating that any aid awarded will be used solely for expenses related to attendance at the institution

10. Comply with Civil Rights Act of 1964, and Title IX of the Education Amendments of 1972 (prohibition of sex discrimination)

11. Continue to expand from its own sources an amount not less than the average expenditure for aid programs for the preceding three fiscal years. (p. 100)

The following are cited in Perspectives (1975) as "Special Responsibilities for Management of the CWS Program":

1. A written agreement between the institution and employing agency will be executed stating that student workers:

   a. Will not displace regular workers
   b. Will be governed by conditions of employment as will be appropriate and reasonable in light of such factors as types of work performed, geographic region, and proficiency of the employee
   c. Must not be involved in the construction, operation, or maintenance of a facility used for sectarian instruction or religious worship
   d. Must not be involved in any partisan or nonpartisan political activity associated with a candidate or contending group in an election for public or party office.

2. The institution is responsible for insuring the reliability of the employing organization, that the work is in the public interest, and is properly supervised.

3. In making work available, the institution shall give preference to students with greatest need.

4. The institution shall certify that the federal share of compensation to students shall not exceed 80 percent of the total compensation to the students.
Institutions are encouraged to enter into contracts with both public and private nonprofit agencies and organizations off campus to provide jobs for their students (pp. 100-101).

The overall effectiveness of the work-study program is influenced by the extent to which the program reflects institutional goals and support and sound managerial policies and practices. Lavery (1967 pp. 14-15) cites ten essential elements that Curtis (1964 pp. 2-3) associated with a good student employment program. The elements stipulate that:

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 and 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 renumeration 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.
Inherent in the goals or essential elements of the type listed are the broader implications for job classification, job-relatedness and academic major and the relationship to academic achievement of the student on work-study.

**Implications for Job Classification and the College Work-Study Program**

A person's aspirations may be considered as his hopes and desires expressed through vocational and educational role images of himself. Such images may be formed without regard for any obstacles that may prevent attainment of such roles. It is important, therefore, that in the administration of CWS that position descriptions and job classifications be developed to reflect trends in the job market and be atuned to the career choices of the student population.

Adams (1962) proposed to develop a system of classification by title, code, and description of the on campus part-time jobs performed by students enrolled in the State Universities of Illinois. For study purposes, Southern Illinois University--Carbondale Campus, was selected, because an earlier investigation revealed it had the greatest potential for student employment. The primary purpose for creating the Student Employment Classification System was to determine the educational value of student jobs. Several procedures were followed in developing the classification system. These procedures included (1) interviewing supervisors of student workers, (2) observing
students in work situations, and (3) surveying all supervisors of student workers utilizing a job questionnaire. Results from the study, enabled Adams to develop a "Student Employment Classification Plan" that can be conveniently adapted and used by other colleges and universities. He states "the individual job classification and descriptions give the best definitive indication of the educational values attainable from a work situation." In an adequate work-study situation, the complexity of the job parallels the educational progress of the students. It would be expected then that juniors and seniors would perform the more difficult and higher level jobs with efficiency. Freshmen and sophomores would be assigned and expected to perform lower level jobs with efficiency. This further suggests a basis for scaling wage rates according to academic levels and job difficulty.

Berry (1954) examined part-time student employment policies and practices in "Negro Land-Grant Colleges." His primary objectives were to (1) analyze student employment practices and policies in the Land Grant Colleges, (2) determine the extent to which the needs of students for employment might affect administrative policies, and (3) develop conclusions and recommendations for possible revisions or modifications of present policies and practices. Basic findings were (1) non-college employment opportunities for students in eleven of the colleges were limited due to their rural locations, (2) most jobs afforded were unrelated to college objectives (primarily,
menial), (3) the colleges were able to give employment to an average of 21% of all students enrolled (1951-1952), (4) about 30% of the students employed on campus were placed in positions related to academic majors; and (5) financial need was the only criterion common to all of the colleges in determining student eligibility. Berry's conclusions were (1) the colleges endeavored to place students in positions related to their curricular programs or vocational interests; (2) representation in employment policy-making and in having one's case involving dismissal heard before one's peers was very seldom followed; (3) limited follow-up of student performance (few well defined and implemented student ratings were provided); and (4) overall effectiveness of policies and policy implementation was restricted due to understaffed operations.

Impact of Job-Relatedness to Academic Major

Historically, one of the main criterion for securing employment is that of previous work experience related to the position sought. Closely related to work experience is the educational preparation related to the position sought. On occasions, academic preparation can be substituted for a portion of the experienced criterion. Recognizing the impact of these factors on the employment of students, especially certain racial and ethnic minorities, CWS can provide valuable job-related experiences for eligible students. Employment opportunities that afford students opportunities for implementing class-
room concepts, understandings and skills tend to develop one's personal and social values relating to career development. According to Osipow (1968):

As a person matures, his culture and perceptions influence the shape of the values he will eventually hold. These values, in turn, will affect his interactions with others, and his hopes and interests will influence his choice of a mate, and play a large role in determining his occupational choice and attainment... The study of the behavioral correlates of values and the forces that shape them, ... have importance for... career development (p. 157).

An unpublished study by Little and Gansneder (1977) attempted to assess program benefits afforded students on work-study assignments during the summer months. Approximately 400 students responded to the questionnaires circulated. The students were to indicate their responses on a scale of one to seven (highest) which reflected their opinions of how the program affected them in terms of (a) contributes to their personal growth and development, (b) provides information about vocational possibilities, (c) helps to secure permanent employment, and (3) influences a change in their choice of a vocation (Little, p. 5). "Forty-seven percent of the respondents indicated the work-experience provided information about training and skills required for particular vocation(s) and stimulated an interest in public service employment; fifty-eight percent indicated the work experience provided an opportunity to provide a public service; and sixty-six percent indicated attaining a better understanding of behavior and operation of public agencies (Little, p. 11)." Twenty-four percent of the respondents
indicated the work experience provided personal contacts which were helpful in securing other employment. Other findings from the study indicated (1) participants who were employed in positions that required college related preparation and training responded more positively to all but seven of the nineteen items; (2) students employed in positions which were in keeping with their academic major responded more positively than students employed in positions unrelated to their academic major; and (3) overall, females were more positive than males; and blacks were more positive than whites (Little, p. 22).

In the conclusion of their study, Little and Gansneder (1977) suggest the importance of:

(1) providing participants with employment that is at a skill level appropriate to the abilities of college students; (2) providing employment related to the participants' academic major; (3) making it possible for participants to have continued employment with the same agencies; and (4) making it possible for participants to have more than one work experience (p. 22).

The study covered off-campus employment, primarily, but it may have inferences for implementing on-campus CWS programs. Hay (1969) reported as being significant the finding that academic performance was higher if the student's job was relevant to his major field of study. As related to job placement, vocational values are learned and are usually associated with such dimensions as "status, prestige, independence, dignity, and opportunity for satisfying interpersonal relationships (Blocher, 1973, p. 61)."
Effects of College Imposed Work-Study on the Academic Achievement of Students

H. B. Baker (1941) conducted a study designed to determine the effects of off-campus employment on the academic achievement of college students. He measured the interaction of employment for 40 hours per week upon the academic achievement of students attending class full time. Each time a student changed his academic load in order to retain his work schedule, the academic average was measured. His findings were (1) that off-campus full-time employment tended to lessen the academic performance (lower the grade point average) of the student; (2) that students enrolled full time, but worked no more than 27 hours per week did not experience lower grade point averages; (3) that when students worked more than 27 hours per week on the average, their grade point averages tended to drop out; and (4) that married and self-supporting students, working full time, did as well or better than dependent students working full time. He concluded that students with low academic achievement and limited work assignments posed a more serious problem than the stronger academic student with a heavy work load. This study preceded the period of funding of aid programs by the Federal Government.

Hay (1969) reported that the academic performance of students who worked 15 hours per week at the Pennsylvania State University--Orgontz Campus, was not adversely affected. Grades of students who worked 16 or more hours per week tended to drop. Significant also
was the finding that academic performance was higher if the student's job was relevant to his major field of study.

Trueblood (1957), just one year prior to passage of the 1958 National Defense Education Act, reported a study he conducted at Indiana University in which he attempted to measure the effects of part-time work in terms of the number of hours worked per week on the academic achievement of selected Indiana University students in the first semester of 1952-53. The study included, in addition to effects of part-time employment on academic achievement, an attempt to determine the effects of age, sex, class standing, enrollment by school (department), and previous work experiences of the working students on grade point averages. He hypothesized that (1) "current employment had no discernible effect on academic achievement," and (2) employment related to academic objectives had no effect on academic achievement which was different from that of employment unrelated to major." His findings were that working while enrolled full time did not adversely affect the academic performance of students at Indiana University. Likewise, the employment experiences of the job-related and non-job-related were essentially similar. On the basis of the two hypotheses tested, however, the findings were not conclusive. He did note a tendency of job relatedness to academic major to have a positive effect on academic achievement. The researcher suggested other similar studies be conducted on a different population.
Budd (1956) reported on a study he conducted in 1954 through the Bureau of Research of Western Washington College of Education. The purpose of the study was to determine the effects of part-time employment on the academic achievement of selected students who had failing grades at mid-semester. The students selected for the study were 59 freshmen all of whom were employed off-campus. The variables investigated in the study included: (1) the number of credit hours with failing grades at mid-semester, (2) the number of clock hours worked per week, (3) the gross scores achieved on the American Council of Education test, and (4) the total number of semester hours enrolled. To determine the statistical interrelationship between the variables a coefficient of correlation was conducted. Resulting from the analysis, the following conclusions were derived:

1. 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 \( r_{12.3} = -.038 \).

2. 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 \( r_{24} = -.208 \).

3. 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.

4. 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 \( r_{14} = -0.227 \).

This study failed to uncover any significant relationships among the variables investigated. Freshmen students included in the study did not appear to be adversely affected by the size of academic course load.

The implication of this study and the study conducted by Henry (1957) at the University of Missouri-Columbia, is that "academic counselors of freshmen need not be particularly concerned about the effect of outside work on the new student's adjustment to college." (Budd, 1956, pp. 221-223)

MacGregor (1966) presented findings slightly different from those reported by Budd (1941). MacGregor's findings were based upon an investigation of part-time work habits of Brooklyn College undergraduates. Approximately 25% of the students employed felt that part-time work had lowered their grade point averages or otherwise adversely affected their academic performance. Among those who did not work, a significant percentage elected not to work because they believed work-study would adversely affect their academic objectives. It should be noted, however, that MacGregor's study evaluated student impressions rather than actual performance.

Gatson (1970) of Western Washington State College compared two "matched" groups of students for one academic year, and charted the performance of each student with his own previous record and with that of his "matched other"; and compared the performance of each
group with the other group. The one variable imposed was work-study for one group, and no work-study for the "matched group." Her hypothesis was "there is no appreciable difference in the academic achievement of students employed for a reasonable number (15 hours) of hours per week, on a part-time basis and the academic achievement of students who are not employed, while attending college on a full time basis." Findings were that current financial aid policies would appear to be reasonable, because (1) students who worked part-time performed as well as students who were not required to work part-time. Work-study requirements were in order at Western Washington State College. (2) Students in the 2.0 to 3.0 grade average (4 point scale) category performed well in both groups, thereby lending support to the policy of no-grade-point average restrictions for financial aid, other than being eligible to remain in college.

In summary, the review of the literature reveals unpublished and published studies that have been conducted which deal with the general area of the relationship of part-time employment to the academic achievement of full-time students. None of these studies, when assessed as a whole, provide a consensus model. Most of the studies were situational based on specific time spans, designated off-campus programs, or unique circumstances (i.e., "students on academic probation and the effects of college work-study").

From the studies reviewed, sufficient evidence has been
presented to merit further investigation into, "The Relationship of Work-Study to the Grade Point Average of Students Receiving Financial Aid at Norfolk State College."
CHAPTER III

METHODOLOGY AND PROCEDURES OF THE STUDY

The primary purpose of the study was to determine the relationship of working part time under the Federal College Work-Study Program to the grade point averages of students enrolled in Norfolk State College--Norfolk, Virginia--during the Academic Years, 1973-74 through 1976-77.

Population

The population for the study included all those students who (1) enrolled in Norfolk State College as freshmen in the Fall Semester, 1973; (2) were awarded financial aid; and (3) remained enrolled through Academic Year 1976-77, on a full-time basis (twelve semester hours or more). All of the students selected for this study were awarded financial aid in accordance with state and/or federal guidelines. The guidelines stipulated that there be "verifiable evidence of need and satisfactory academic promise or progress (as determined by the institution offering the aid)." The "need" criterion was established upon receipt, from College Scholarship Service (CSS), of a processed Parents' Confidential Statement (PCS) or Student Financial Statement (SFS), or a Financial Aid Form (FAF) that had been filed by the
student and parent or spouse as applicable. The appropriate "needs" analysis form was then cross-referenced with the Institutional Application for Financial Aid on file in the Financial Aid Office of Norfolk State College.

Eligibility based on academic status was determined from the lists presented by the Admissions' and Registrars' Offices which indicated those students who were admitted or re-admitted in "good standing" for each of the ensuing academic years of the study. Those students determined by the Financial Aid Office to be eligible for aid were awarded packages of aid which consisted of combinations of grants (Basic or Supplemental Educational Opportunity Grants, BEOG or SEOG), or loans (National Direct Student Loan, NDSL), and/or employment (College Work-Study, CWS). These forms of federal aid may have been combined with such state sources as grants (College Scholarship Assistance Grants-Loans, CSAP or CSAP-L) and/or undergraduate scholarship funds.

Students awarded work-study must have satisfied the same eligibility criteria as other students awarded financial aid packages. In addition, students selected for work-study must have ranked in the top 50% of their high school graduating class with the total college board scores of 650 or better. Having satisfied the basic eligibility prerequisites, students were then assigned to work in accordance with academic major, special skills, and/or previous work experience in the rank order given.
Priority for assigning students to positions in their academic majors within the same academic department or related areas was designed to give the student a meaningful work experience and opportunities for translating theory into practice. Previous work experience is often essential to receiving gainful employment. Second in priority of assignment to work study is special skills possessed by the students. Included among the special skills and capabilities considered in work placement are--clerical (typing, shorthand, bookkeeping, etc.) and those abilities gained through previous work experience. Included in the latter group may be food-service personnel, recreational leaders, teacher-aids, peer counselors, etc. Data concerning academic major, special skills, and previous work-experience(s) are included on the "Institutional Application for Financial Aid" (Appendix A). All work-study assignments were restricted to the Campus of Norfolk State College, except those students assigned to work in Norfolk Community Hospital which is adjacent to the Campus.

Students were informed about their work-study assignments in the "Award and Acceptance Notification" (Appendix D), and the conditions of the assignment in the "Work-Study Agreement" (Appendix F). Included with the "Work-Study Agreement" were instructions which explained when and where to report what to do upon reporting, number of hours to be worked per week, hourly wage rate, and the total dollar value of the contract. To reinforce the importance of the
work assignment and to clarify expectations of the work program, a pre-work orientation session was held with students and work-study supervisors. During the orientation session the "Student Performance Report" (Appendix I) was discussed. This report is completed by the Work-Study Supervisor on the student worker and submitted to the Director of Financial Aid, Norfolk State College. The report is made at least twice during each work assignment. Each report is reviewed by the Director of Financial Aid or other designated official of the Financial Aid Office. These reports are used in conjunction with subsequent recommendations of students for employment.

The Program of Work-Study and the broader Program of Financial Aid require skill in organization and management. Packaging of financial aid is the key to the success of the total aid program. The packaging procedure is predicated upon the professional judgment of the Director of Financial Aid as guided by institutional policy established by the Financial Aid Advisory Committee of Norfolk State College and guidelines of the State and Federal Governments relating to student aid.

Important to this study were the 292 students who were determined eligible for the sample population. The selected students were divided into two basic groups. **Group I** consisted of those students with work-study as a part of their aid package. **Group II** consisted of those students with aid packages, but no work-study.
Group I included 146 students who worked one or more academic years during the period of the study. Group II included 146 students selected by random sampling from 209 students awarded financial aid, but no work-study. Table 3 gives the unduplicated distribution of the sample population by year. Table 4 gives the unduplicated distribution of the sample population by academic majors.

**Collection of Data**

Data used in this study were obtained from the Admission's Office, the Registrar's Office, and the Financial Aid Office of Norfolk State College. Data secured from the Office of Admissions included "Data Control Cards" for each student admitted and enrolled for the Fall Semester, 1973, and an alphabetical roster listing the names of students who were dropped for academic and social reasons. The data provided by the Registrar's Office served as the bases for determining the academic criterion of eligibility for students to receive financial aid.

Obtained from records within the Financial Aid Officer were data that identified by academic year the name of the aid applicants and aid recipients, types of aid awarded, those denied aid and the reasons for denying such request for aid, family income information, previous work experience, academic average, and any other changes in the student's financial and/or academic status. Records providing the data identified, included the--Institutional Application for Financial Aid
Table 3

Unduplicated Distribution of Sample Population by Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Work-Study Total</th>
<th>Non-Work-Study Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973-1974</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>1974-1975</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>1975-1976</td>
<td>43</td>
<td>44</td>
</tr>
<tr>
<td>1976-1977</td>
<td>32</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>146</td>
<td>146</td>
</tr>
</tbody>
</table>

Table 4

Unduplicated Distribution of Sample Population by Academic Majors

<table>
<thead>
<tr>
<th>Academic Division (Code)</th>
<th>Work-Study Total</th>
<th>Non-Work-Study Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business (1)</td>
<td>43</td>
<td>34</td>
</tr>
<tr>
<td>Education (2)</td>
<td>45</td>
<td>48</td>
</tr>
<tr>
<td>Humanities (3)</td>
<td>40</td>
<td>49</td>
</tr>
<tr>
<td>National Science &amp; Technology (4)</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>146</td>
<td>146</td>
</tr>
</tbody>
</table>
(Appendix A), processed Parents' or Student Financial Statement (PCS/SFS) or Financial Aid Form (FAF) (Appendix B), Financial Needs Analysis Report (Appendix C), Award and Acceptance Form (Appendix D), Academic Achievement Schedule (Appendix E), Work-Study Agreement (Appendix F), Work-Study Balance Sheet (Appendix G), Work-Study Time Sheet (Appendix H), Work-Study Performance Reports (Appendix I), Cumulative Aid Award Control Cards (Appendix J), Denial Letter (Appendix K), and other supporting documents reflecting adjustments in academic and financial data.

Analysis of the Data Collected

In order to establish statistical significance, Analysis of Variance and Multiple Regression were applied utilizing the SPSS software package. Comparisons were made within and between groups to determine the impact of college work-study on the grade point averages of the two groups of students. Each of the two basic populations were compared each year of the study for the relationship(s) between earned grade point averages (GPAG) and rank in high school graduating class, total college board scores, family income, and academic major.

As a matter of background information, Norfolk State College has a common core of subjects, which consist of approximately 54 semester hours. This core of subjects is expected to be completed with the first two years of the four-year program. During the first
two years students receive instruction that is primarily in the general education sequence. A few academic departments require their majors to begin introductory level courses within the first or second year of the four-year program. The cumulative averages of these students in the first two years, should be comparable to other students in the first two years, and should not reflect the impact of a particular academic field. Cumulative averages for students in the third and fourth academic years may be influenced by particular academic fields. The impact may be reflected by a lowering of GPA's for students in certain academic majors between the second and third year of the study.

Analyses:

1. Analysis #1--The relationship of the grade point average of students on college work-study to
   a. family income (INC)
   b. rank in high school graduating class (RHS)
   c. college board scores (total math and verbal) (TCBS)
   d. academic year(s)
   e. academic major (MAJ)

2. Analysis #2--The relationship of the grade point average of students with financial aid but no work-study to
   a. family income (INC)
   b. rank in high school graduating class (RHS)
   c. college board scores (TCBS) (total of math and verbal)
   d. academic year(s)
e. academic major (MAJ)

Variables:

1. Dependent--academic performance indicated by grade point averages (GPA) at the end of 1973-74, 1974-75, 1975-76, and 1976-77

2. Independent--income (x-1), rank in high school graduating class (x-2), college board scores (x-3), academic major (x-4), and academic year (x-5)

Relationship of Independent Variables to Dependent Variables

1. Group I--College Work-Study

   a. college board scores to GPA, controlling for RHS, INC, and MAJ

   b. family income (INC) to GPA, controlling for RHS, TCBS, and MAJ

   c. rank in high school graduating class (RHS) to GPA, controlling for INC, TCBS, and MAJ

   d. academic major to GPA, controlling for INC, RHS, and TCBS

2. Group II--Non-Work-Study

   a. college board scores to GPA, controlling for RHS, INC, and MAJ

   b. family income to GPA, controlling for RHS, TCBS, and MAJ

   c. rank in high school graduating class (RHS) to GPA, controlling for INC, TCBS, and MAJ

   d. academic major to GPA, controlling for INC, RHS, and TCBS
Research Design

1. The subjects were divided into two groups of 146 students each
   a. Group I consisted of unduplicated work-study recipients
   b. Group II consisted of unduplicated aid recipients without
      work-study as a part of the aid package.

2. The study was conducted over four academic years, beginning
   with Academic Year 1973-74 and ending with 1976-77.

3. All subjects were evaluated on the basis of their current GPA
   and cumulative GPA at the end of each Academic Year.

4. A fixed effects multivariate analysis was used to test each
   research hypothesis. The analysis was used to determine
   if a significant relationship existed between the independent
   and dependent variables. Strength of the relationship was
   investigated using confidence interval and multiple coefficients
   of determination.

Statistical Hypotheses ($H_0$) with Their Alternative Research Hypotheses
($H_1$ ... $H_7$)

$H_0: M_{WS} = M_{NWS}$

(Mean GPA of work-study students
Group I) will equal mean GPA of non-
work-study students (Group II).

$H_1: M_{WS} > M_{NWS}$

(Mean GPA of work-study students will
be greater than mean GPA of non-
work-study students).

$H_0: M_{WS}(f) = M_{NWS}(f)$

(Mean GPA of freshmen work-study
students will be equal to mean GPA
of freshmen in non-work-study group).

$H_2: M_{WS}(f) > M_{NWS}(f)$

(Mean GPA of freshmen work-study
students will be greater than the mean
GPA of freshmen in non-work-study
group).

$H_0: M_{WS-c} = M_{NWS-c}$

(Mean cumulative GPA of work-study
 group in fourth year of study will equal
the mean cumulative GPA of non-work-
study group in fourth year of study).
\[ H_3: M_{ws-c} > M_{nws-c} \] (Mean cumulative GPA of work-study group in fourth year of study will be greater than mean cumulative GPA of non-work-study group in fourth year of study).

\[ H_0: M_{ws} = M_{nws} \] (Mean GPA of work-study group in academic majors one, two, three, or four will be equal to mean GPA of students in non-work-study group in academic majors one, two, three or four).

\[ H_4: M_{ws} > M_{nws} \] (Mean GPA of work-study group in academic majors one, two, three, or four will be greater than mean GPA of students in non-work-study group in academic majors one, two, three or four).

\[ H_0: M_{ws(TCBS)} = M_{nws(TCBS)} \] (Mean TCBS of work-study group will equal mean TCBS of non-work-study group).

\[ H_5: N_{ws(TCBS)} \geq M_{nws(TCBS)} \] (Mean TCBS of work-study group will be greater than mean TCBS of non-work-study group).

\[ H_0: M_{ws(RHS)} = M_{nws(RHS)} \] (Mean of RHS of work-study group will equal mean of RHS non-work-study group).

\[ H_6: M_{ws(RHS)} > M_{nws(RHS)} \] (Mean of RHS of work-study group will be greater than mean RHS of non-work-study group).

\[ H_0: M_{ws(INC)} = M_{nws(INC)} \] (Mean of INC of work-study group will be equal to mean of INC of non-work-study group).

\[ H_7: M_{ws(INC)} > M_{nws(INC)} \] (Mean of INC of work-study group will be greater than mean of INC of non-work-study group).
Legend:

ws denotes work-study (Group I)
nws denotes non-work-study (Group II)
f denotes freshmen students
c denotes cumulative averages
GPA denotes grade point average
TCBS denotes total college board scores
RHS denotes rank in high school
INC denotes family income
CHAPTER IV

ANALYSES OF DATA

The study reported in this paper was an investigation of the relationship of part-time college work-study to grade point average (GPA), and the relationship of GPA to non-work-study aid recipients who were enrolled in Norfolk State College during the Academic Years, 1973-74 through 1976-77. The sample population for this study was selected from among the entering freshman population in the Fall of 1973, and were verified for full-time enrollment and receipt of financial aid for each year of the study. Students selected for study were divided into two groups. Group I represented those students who were awarded financial aid packages including part-time college work-study. Those students of the sample population awarded aid packages without part-time college work-study were designated Group II.

Contained in this chapter are the analyses of the data used to examine the relationships of FPA to (1) rank in high school graduating class (RHS), (2) total college board scores (TCBS), (3) family income (INC), (4) academic major (MAJ), and (5) part-time college work-study. These variables were analyzed individually in relationship to the effectiveness of the work-study policy used in selecting students.
for employment. Derived from an analysis of variance, the strength of the relationship of each variable is measured in terms of the size of the "F" value—a large "F" signifies a stronger relationship—a small "F" suggests a lesser relationship of the variable to the GPA.

Central to the study was an identification of certain distributive characteristics of the independent variables with respect to the two study groups. Table 5 shows the means for the two populations which provide a measure of central tendency. The mean of Group I for rank in high school graduating class (RHS) was at the sixty-fifth percentile as compared with a mean at the fifty-seventh percentile for Group II. Inferred from the means of the two groups is the tendency of Group I students to have higher high school class ranks than Group II students. This tendency reflects the policy of selecting for part-time college work-study those students who rank in the upper 50% of their graduating class from high school.

Similarly, students in Group I had total college board scores (TCBS) with a mean of 663 as compared with a mean of 644 for those students in Group II. The mean of Group I students reflects the policy for selecting and assigning students to part-time college work-study with TCBS of 650 or higher.

During the period of this study, students in Group I had a mean family income of $7,800.00 compared with a mean family income of $6,986.00 for those students in Group II. Although the
Table 5

Frequency Distribution of Independent Variables
(N=292)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Work-Group</th>
<th>Mean</th>
<th>Mode</th>
<th>SE</th>
<th>SD</th>
<th>Median</th>
<th>VAR</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHS</td>
<td>Work (W)</td>
<td>65</td>
<td>90</td>
<td>2</td>
<td>23</td>
<td>70</td>
<td>.548</td>
<td>93</td>
</tr>
<tr>
<td>RHS</td>
<td>No Work (NW)</td>
<td>57</td>
<td>38</td>
<td>2</td>
<td>24</td>
<td>56</td>
<td>.561</td>
<td>94</td>
</tr>
<tr>
<td>TCBS</td>
<td>Work (W)</td>
<td>663</td>
<td>620</td>
<td>10</td>
<td>124</td>
<td>630</td>
<td>15264</td>
<td>670</td>
</tr>
<tr>
<td>TCBS</td>
<td>No Work (NW)</td>
<td>644</td>
<td>600</td>
<td>8</td>
<td>99</td>
<td>621</td>
<td>9745</td>
<td>530</td>
</tr>
<tr>
<td>INC</td>
<td>Work (W)</td>
<td>7840</td>
<td>7000</td>
<td>345</td>
<td>4173</td>
<td>7853</td>
<td>17411742</td>
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</tr>
<tr>
<td>INC</td>
<td>No Work (NW)</td>
<td>6986</td>
<td>3600</td>
<td>325</td>
<td>3910</td>
<td>6753</td>
<td>15452603</td>
<td>19130</td>
</tr>
</tbody>
</table>

Independent Variable explained:  
RHS - Rank in high school class, expressed as a per cent  
TCBS - Total college board scores (Math and Verbal)  
INC - Total family income

N=146 (W), N=146 (NW)
means for the two groups are low, there was a measurable difference in the grade point average of the two groups of students. Observable, also, is a great difference in the mode for income of the two groups of students. This difference may have been attributed to the selection process of students for work-study. The students selected for work-study were those students with college board scores of 650 and ranked in the top 50% of their high school graduating class. These were the students in a majority of the selections who were also from the higher income groups. As a result, many of the students were not selected from the lower income group.

Calculations of the means of the independent variables, RHS, TCBS, and INC were significant in characterizing each of the two population groups in terms of relatedness of Group I to Group II. A further indication of this relatedness is expressed through the amount of dispersion about the mean of each variable in each of the two groups. The amount of dispersion is derived from the mathematical calculations of the standard deviations and the variance of each variable for each of the two groups of students. Table 5 shows that the larger the interval measurements, the larger was the accumulated variance from the means for each of the independent variables in each of the two groups.

From the data presented in Table 5, an inference may be drawn as to whether the variability is due to chance or other factors.

Also important to the study was an identification of any central
tendencies of the grade point averages (GPA's) for each of the two
groups of students. This initial identification of central tendencies
of the GPA's served as a base for later analysis of relatedness.

Contained in Table 6 are data which show the breakdown of averages
by "W" Group I and "NW" (Group II), and the combined averages for
the total sample population ("ALL") by academic year and the
cumulative grade point averages by the year. For clarity of inter-
pretation, under the "Average" years of study (i.e., 1 is the same as
1973-74, 2 is the same as 1974-75, etc.).

In each year of the study, Table 6 shows the mean GPA of
(1) Group I ("W") was greater than the mean of Group II, (2) Group I
was greater than the mean GPA of the total population ("ALL"), and
(3) Group II was less than the GPA of the total population ("ALL").

The largest changes in mean GPA's for both groups occurred between
Academic Year 1975-76 and 1976-77. For example, when the mean
GPA's of Group I and Group II were compared in Academic Year,
1975-76, the GPA of Group I was higher by +.075 points than the GPA
of Group II. When the mean GPA's of the two Groups were compared
in Academic Year, 1976-77, the GPA of Group I was higher by +.201
points than the GPA of Group II, an increase of +.126 points over the
previous year.

For the same period, Academic Years, 1975-76 and 1976-77,
a comparison was made of the GPA's of each group with the mean GPA
Table 6

Breakdown of Averages by Work-Group by Academic Year (N=292)

<table>
<thead>
<tr>
<th>Average</th>
<th>Work-Group</th>
<th>Mean Average</th>
<th>Standard Deviation</th>
<th>Variance</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All</td>
<td>2.312</td>
<td>.606</td>
<td>.367</td>
<td>292</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>2.421</td>
<td>.581</td>
<td>.337</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>NW</td>
<td>2.203</td>
<td>.613</td>
<td>.376</td>
<td>146</td>
</tr>
<tr>
<td>1-C*</td>
<td>All</td>
<td>2.312</td>
<td>.607</td>
<td>.367</td>
<td>292</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>2.421</td>
<td>.581</td>
<td>.337</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>NW</td>
<td>2.203</td>
<td>.613</td>
<td>.376</td>
<td>146</td>
</tr>
<tr>
<td>2</td>
<td>All</td>
<td>2.438</td>
<td>.555</td>
<td>.308</td>
<td>292</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>2.505</td>
<td>.558</td>
<td>.311</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>NW</td>
<td>2.371</td>
<td>.546</td>
<td>.298</td>
<td>146</td>
</tr>
<tr>
<td>2-C</td>
<td>All</td>
<td>2.359</td>
<td>.561</td>
<td>.315</td>
<td>292</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>2.459</td>
<td>.538</td>
<td>.289</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>NW</td>
<td>2.259</td>
<td>.627</td>
<td>.393</td>
<td>146</td>
</tr>
<tr>
<td>3</td>
<td>All</td>
<td>2.538</td>
<td>.628</td>
<td>.394</td>
<td>292</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>2.575</td>
<td>.628</td>
<td>.394</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>NW</td>
<td>2.500</td>
<td>.637</td>
<td>.393</td>
<td>146</td>
</tr>
<tr>
<td>3-C</td>
<td>All</td>
<td>2.424</td>
<td>.522</td>
<td>.272</td>
<td>292</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>2.502</td>
<td>.522</td>
<td>.272</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>NW</td>
<td>2.347</td>
<td>.512</td>
<td>.263</td>
<td>146</td>
</tr>
<tr>
<td>4</td>
<td>All</td>
<td>2.670</td>
<td>.703</td>
<td>.494</td>
<td>292</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>2.771</td>
<td>.695</td>
<td>.483</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>NW</td>
<td>2.570</td>
<td>.698</td>
<td>.488</td>
<td>146</td>
</tr>
<tr>
<td>4-C</td>
<td>All</td>
<td>2.494</td>
<td>.540</td>
<td>.292</td>
<td>292</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>2.574</td>
<td>.544</td>
<td>.296</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>NW</td>
<td>2.413</td>
<td>.526</td>
<td>.276</td>
<td>146</td>
</tr>
</tbody>
</table>

*C=Cumulative Average

A=4.0
B=3.0
C=2.0
D=1.0
of the total sample population ("ALL"). The comparison, derived from data contained in Table 6, shows that the mean GPA's were (1) 2.575 for Group I and 2.538 for the total population, a difference of +.037 points in 1975-76; (2) 2.771 for Group I and 2.670 for the total population, a difference of +.101 points in 1976-77; (3) 2.500 for Group II and 2.538 for the total population, a difference of -.308 points in 1975-76; and (4) 2.570 for Group II and 2.670 for the total population, a difference of -.100 points in 1976-77. The differences in GPA's were probably due to the selection process of students for work-study. Students selected for work-study represented the better of the two groups, in terms of both measured mental ability and previous academic success.

To assess more accurately the relationship that existed in the GPA's presented in Table 6, an analysis of variance was conducted. Table 7 shows the relationship of the covariates--RHS, TCBS, and INC--to the GPA of the total population. During Academic Year, 1973-74, TCBS affected the GPA the most (F=93.6) and INC the least (F=4.4). After 1973-74, TCBS appeared to have ranked second in relatedness to GPA. This ranking was based on "F" values of 44.8 (1974-75), 14.9 (1975-76), and 13.2 (1976-77). RHS ranked second in relatedness to GPA for the first year of the study with an F=51.4. Each succeeding year, RHS was first in relatedness to GPA, with "F" values equal to 71.6 (74-75), 43.9 (75-76), and 35.5 (76-77). Among the
### Table 7

Analysis of Variance Showing Effects of Covariates on Grade Point Averages by Year (N-292)

<table>
<thead>
<tr>
<th>Year</th>
<th>M Grand Avg</th>
<th>Covariates*</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>Significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973-74</td>
<td>2.309</td>
<td>RHS</td>
<td>9483269</td>
<td>1</td>
<td>9483269</td>
<td>51.371</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TCBS</td>
<td>17281008</td>
<td>1</td>
<td>17281008</td>
<td>93.611</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INC</td>
<td>818664</td>
<td>1</td>
<td>818664</td>
<td>4.435</td>
<td>0.036</td>
</tr>
<tr>
<td>1974-75</td>
<td>2.436</td>
<td>RHS</td>
<td>12761108</td>
<td>1</td>
<td>12761108</td>
<td>71.576</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TCBS</td>
<td>7985130</td>
<td>1</td>
<td>7985130</td>
<td>44.788</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INC</td>
<td>238298</td>
<td>1</td>
<td>238298</td>
<td>1.377</td>
<td>0.249</td>
</tr>
<tr>
<td>1975-76</td>
<td>2.534</td>
<td>RHS</td>
<td>12807723</td>
<td>1</td>
<td>12807723</td>
<td>43.857</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TCBS</td>
<td>4345766</td>
<td>1</td>
<td>4345766</td>
<td>14.881</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INC</td>
<td>134081</td>
<td>1</td>
<td>134081</td>
<td>0.459</td>
<td>0.499</td>
</tr>
<tr>
<td>1976-77</td>
<td>2.671</td>
<td>RHS</td>
<td>13314167</td>
<td>1</td>
<td>13314167</td>
<td>35.473</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TCBS</td>
<td>4956714</td>
<td>1</td>
<td>4956714</td>
<td>13.206</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INC</td>
<td>54974</td>
<td>1</td>
<td>54974</td>
<td>0.146</td>
<td>0.702</td>
</tr>
</tbody>
</table>

*Covariates Explained: RHS = Rank from High School
TCBS = Total College Board Scores (Math and Verbal)
INC = Total Family Income
independent variables, INC was least related to GPA. The GPA's of both groups in the population (N=292) were strongly related to RHS and TCBS.

An expansion of the relationship of the independent variables to grade point averages is given in Table 8. Under the column, "Unadjusted" deviations are means of Group I and Group II for each year of the study expressed as deviations from the grand mean. The column "Adjustments for Independent Deviation" indicates the adjusted mean values for Group I (work-study) and Group II (no work-study) when work-study is adjusted for. (It shows the deviation of each factor from the grand mean.) In the last column, "Adjustments for Independent and Covariate Deviations," is shown the effects of adjusting for covariates continues to reduce the effects of the independent deviations. It can be seen from Table 8 that working alone had little effect on GPA, but when adjustments for covariate deviations are included a significant amount of the variation from the grand mean average is identified. Collectively, working, RHS, TCBS and INC explain most of the relatedness between grade point averages of the students in Group I with those students in Group II.

Table 9 shows the relationship of academic major and academic classification to the GPA of all students selected for the study. Included also are data that show the relationship of RHS, TCBS, and INC to GPA by academic major and academic classification, and the inter-
<table>
<thead>
<tr>
<th>Year</th>
<th>Variable</th>
<th>N</th>
<th>GM</th>
<th>M^+</th>
<th>M^+ Covariate Dev'n</th>
<th>Adjust for Independ &amp;</th>
<th>Adjust for Work-Groups</th>
<th>W = Work group (unduplicated)</th>
<th>NW = No work group (unduplicated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973-74</td>
<td></td>
<td>146</td>
<td>2.309</td>
<td>2.309</td>
<td>2.309 + 0.117 = 2.426</td>
<td>2.309 + 0.070 = 2.376</td>
<td>2.436 + 0.047 = 2.483</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1974-75</td>
<td></td>
<td>145</td>
<td>2.436</td>
<td>2.436</td>
<td>2.436 + 0.042 = 2.478</td>
<td>2.436 + 0.042 = 2.478</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1975-76</td>
<td></td>
<td>145</td>
<td>2.534</td>
<td>2.534</td>
<td>2.534 + 0.042 = 2.576</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1976-77</td>
<td></td>
<td>145</td>
<td>2.671</td>
<td>2.671</td>
<td>2.671 + 0.042 = 2.713</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Variable Explained: W = Work group (unduplicated) NW = No work group (unduplicated)
relating of RHS, TCBS, and academic major to GPA.

In 1973-74, the relationship of the "adjustments for independent and covariate deviations" were negative except for those students enrolled in the Humanities. The lowest GPA's were attained, after "adjustments for independent and covariate deviations," by those students of Group I who majored in Business.

Table 9 shows that in 1974-75, the relationship of GPA to academic major when adjusted for "independent and covariate deviations" was greatest among students who majored in Business, and least among those students who majored in the Natural Sciences and Technology. For the "unadjusted deviations," the relationship is different as evidenced by the GPA's of those students who majored in Education. The value of the "unadjusted deviation" for those students majoring in Education was -0.062 from the mean GPA. A positive "unadjusted deviation" of +0.181 units from the mean GPA of those students who majored in the Natural Sciences and Technology.

For Academic Year, 1976-77, Table 9 shows that before any adjustments for deviations were made, the GPA of students majoring in Education was highest (2.782) and for those students majoring in the Natural Sciences and Technology was lowest (2.537). Adjustments for "independent deviations" resulted in the GPA's of those students in all majors, except the Humanities, being decreased. In the Humanities, the GPA was increased by +0.009 points. The least
Table 9

Multiple Classification Analysis: Grand Mean (GPA) and Adjusted GPA by Major by Year
(N = 292)

<table>
<thead>
<tr>
<th>Year</th>
<th>Major</th>
<th>GM</th>
<th>Unadjusted M ± Dev'n</th>
<th>Adjust for M ± Independ Dev'n</th>
<th>Adjust for M ± Covariates Dev'n</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td>2.309</td>
<td>2.309 + .053 = 2.362</td>
<td>2.309 + .068 = 2.377</td>
<td>2.309 + .029 = 2.338</td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td>2.436</td>
<td>2.436 - .009 = 2.427</td>
<td>2.436 - .000 = 2.436</td>
<td>2.436 - .018 = 2.418</td>
</tr>
<tr>
<td>1975-76</td>
<td>Business</td>
<td>2.534</td>
<td>2.534 - .071 = 2.463</td>
<td>2.534 - .074 = 2.460</td>
<td>2.534 - .106 = 2.228</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>2.534</td>
<td>2.534 + .056 = 2.590</td>
<td>2.534 + .054 = 2.588</td>
<td>2.534 + .116 = 2.650</td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td>2.534</td>
<td>2.534 - .022 = 2.512</td>
<td>2.534 - .017 = 2.517</td>
<td>2.534 - .026 = 2.508</td>
</tr>
<tr>
<td></td>
<td>Nat'l Sci/Tech</td>
<td>2.534</td>
<td>2.534 + .079 = 2.613</td>
<td>2.534 + .081 = 2.615</td>
<td>2.534 + .023 = 2.557</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>2.671</td>
<td>2.671 + .111 = 2.782</td>
<td>2.671 + .109 = 2.780</td>
<td>2.671 + .185 = 2.856</td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td>2.671</td>
<td>2.671 + .006 = 2.677</td>
<td>2.671 + .015 = 2.686</td>
<td>2.671 + .003 = 2.674</td>
</tr>
</tbody>
</table>
changes occurred in adjustments to the GPA's of Education majors, which was +0.002 points. When adjustments were made for "independent and covariates" jointly, the GPA's of all majors except Education were reduced. The GPA's for Education majors increased by +0.185 points over the grand mean (GM) average of 2.671. Students who majored in the Humanities experienced the least change in GPA, +0.003 points.

Collectively, Table 9 shows that during 1973-74 through 1976-77, adjustments for "independent deviations" and joint adjustments for "independent and covariate deviations" resulted in a decrease of the GPA for students who majored in Business. When adjustments were made in GPA's because of "independent deviations" only, the GPA's of students who majored in the Humanities and the Natural Sciences and Technology were increased for each year of the study. Conversely, those students who majored in Business and Education attained lower GPA's when adjustments were made due to "independent deviations." When "independent and covariate" adjustments for deviation were made jointly, during 1976-77, the GPA's of those students majoring in Education were increased, while the GPA's of those students majoring in the Humanities, the Natural Sciences and Technology, and Business were decreased. Except for students in Business, no set pattern was established for GPA's due to adjustments for "independent deviations" nor for "independent and covariate deviations." The GPA's of students
majoring in the Natural Sciences and Technology were highest each year of this study, except in the last year, 1976-77, when the GPA's of students majoring in Education were the highest.

Some of the unexplained differences identified in Table 9 are explained in Table 10—"Breakdown: Average One thru Four (Cumulative) by Work-Group by Major." In the first year of the study, the GPA of all students were higher for the work-group "W" than for the no-work group "NW," except those students majoring in Business. For the years, 1973-74, 1974-75 and 1976-77, the GPA's of the "NW" group majoring in Business were higher than the work "W" group. Apparently work-study did affect the GPA's of those students who majored in (1) Business in the first, second and third years of this study, (2) Education in the third year of this study, and (3) the Natural Sciences and Technology in the third year of this study. Throughout the four years of the study, 1973-74 through 1976-77, the GPA of those students who worked and majored in the Humanities was higher than for those students who did not work. Collectively, Table 10 shows that the relationship of work and major to the GPA when interacted had little effect on GPA. Taken individually, the relationship of work to GPA and major to GPA, varied significantly.

To more accurately assess the relationship of work-study and major to the GPA for students, Table 11 gives an analysis of variance showing the effects of work-study and major on the GPA by
Table 10

Breakdown: Average One Thru Four (Cumulative) by Work-Group and by Major (N = 292)

<table>
<thead>
<tr>
<th>Major*</th>
<th>Wkgn</th>
<th>Avg 1</th>
<th>SD</th>
<th>Avg 2</th>
<th>SD</th>
<th>Avg 2-C SD</th>
<th>Avg 3</th>
<th>SD</th>
<th>Avg 3-C SD</th>
<th>Avg 4</th>
<th>SD</th>
<th>Avg 4-C SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>W</td>
<td>2.351</td>
<td>.558</td>
<td>2.417</td>
<td>.588</td>
<td>2.342</td>
<td>.565</td>
<td>2.481</td>
<td>.555</td>
<td>2.395</td>
<td>.538</td>
<td>2.567</td>
</tr>
<tr>
<td>2</td>
<td>W</td>
<td>2.248</td>
<td>.518</td>
<td>2.435</td>
<td>.543</td>
<td>2.341</td>
<td>.466</td>
<td>2.587</td>
<td>.545</td>
<td>2.426</td>
<td>.401</td>
<td>2.860</td>
</tr>
<tr>
<td>3</td>
<td>W</td>
<td>2.654</td>
<td>.598</td>
<td>2.604</td>
<td>.542</td>
<td>2.638</td>
<td>.549</td>
<td>2.675</td>
<td>.770</td>
<td>2.647</td>
<td>.889</td>
<td>2.952</td>
</tr>
<tr>
<td></td>
<td>NW</td>
<td>2.135</td>
<td>.678</td>
<td>2.294</td>
<td>.626</td>
<td>2.191</td>
<td>.670</td>
<td>2.382</td>
<td>.638</td>
<td>2.293</td>
<td>.580</td>
<td>2.447</td>
</tr>
<tr>
<td></td>
<td>NW</td>
<td>2.205</td>
<td>.735</td>
<td>2.557</td>
<td>.568</td>
<td>2.346</td>
<td>.595</td>
<td>2.672</td>
<td>1.061</td>
<td>2.401</td>
<td>.545</td>
<td>2.242</td>
</tr>
</tbody>
</table>

*Major Code: 1= Business  
2= Education  
3= Humanities  
4= Natural Science and Technology
Table 11

Analysis of Variance Showing Effects of Work-Study and Major on Grade Point Average by Year
(N=292)

<table>
<thead>
<tr>
<th>Year</th>
<th>GM Avg</th>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>Significance of F</th>
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year. In 1973-74 and 1974-75 it would appear that, working did tend to affect the GPA of students (N=292) as evidenced by a "Significance of F," p>0.000 and 0.005 for each of the years cited. Major was significant for all years of the study, being most significant in the last year with a "Significant F," p>0.004.

Table 12 is an analysis of variance of Average One (Avg-1) through Average Four (Avg 4-Cumulative) by work-group and major to GPA. For each of the four years of the study, except for 1974-75, students who majored in Business and worked had GPA's that were lower than students who did not work. Education and Science and Technology majors who worked had GPA's that were higher than those students who did not work except for 1975-76, when the non-work group "NS" had higher GPA's.

Table 12 shows that students who majored in the Humanities and worked had higher GPA's for each year of this study than did those students of the same major who did not work. Table 6 presented bases for the same finding concerning students majoring in the Humanities. Table 12 shows there were no significant "F's" for students who majored in Business or Education. For those students majoring in the Humanities, for each year of this study, "F" was significant. Only in the first year of this study was there a "significant F" for students majoring in the Natural Sciences and Technology.
Table 12

Analysis of Variance: AVG-1 to AVG-4-C
by Work-Group and Major

<table>
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<th>Major</th>
<th>Avg</th>
<th>Mean</th>
<th>Average</th>
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<th>F</th>
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C* - represents cumulative averages

Major explained: 1 - Business
                   2 - Education
                   3 - Humanities
                   4 - Natural Science and Technology
Testing of Hypotheses

Basic to this study was a determination of the relatedness of college work-study and academic major to the grade point averages of two groups of students who received financial aid while attending Norfolk State College on a full-time basis during the period, 1973-74 through 1976-77. These two groups of students included--Group I, those students on part-time work-study; and Group II, those students awarded aid, but no work-study.

Relatedness describes measurable variance in grade point averages of the two groups of students at the 5% level as determined by an Analysis of Variance (using the "t" and/or "F" statistic). In addition, relatedness is defined in terms of the predictive value of the variables (1) Rank in High School Graduating Class (RHS), (2) Total College Board Scores (TCBS), and (3) Family Income (INC) to the grade point average as determined by the size of the F statistic—the larger the "F" value, the more significant the variable is in predicting the GPA of the students. Conversely, the smaller the F value, the lesser will be the predictive value of the variable. (The Computer Program used in this study printed out the significance of F at the 5% level.)

This study was developed to examine two key problems involved in the administration of college work-study segment of the Student Financial Aid Program. The two problems to which solutions
have been sought, include: (1) Is there a significant difference in the grade point averages of students on part-time college work-study (Group I) compared with those students not on part-time college work-study (Group II)?; and (2) Are the criteria used in selecting students for part-time college work-study assignments representative of an effective policy? Therefore, testing of hypothesis based on relatedness and predictive significance of certain criterion variables has been essential to providing statistically significant data for analyzing the problems related to this study.

Problems One and Three

1. Is there a significant difference between the grade point averages of students on part-time college work-study compared with students not on college part-time work-study but awarded other forms of financial aid?

3. Is there a significant difference in the cumulative GPA of Group I students in the fourth year of the study when compared with the GPA of Group II students in the fourth year of study?

Hypotheses One and Three

1. The grade point average of Group I will be higher than the grade point average of Group II. Table 6 shows that for each year of the study the Grand Mean Average (GMA) of Group I was higher than the Grand Mean Average of Group II. For example, in the fourth year of the study (4-C), the Grand Mean of both ("All") groups was 2.494. The means of Group I and Group II respectively were 2.574 and 2.413. Using the "t-test" for statistical significance a "t" of 2.59 was computed with a significance of 0.5%. The null hypothesis is rejected at 0.5% level, and Mean of Group I is not equal to Mean of Group II. (See Appendix X-L, Calculations of "t").
3. The cumulative GPA of Group I students in the fourth year of the study will be greater than the cumulative GPA of Group II students in the fourth year of study.

Problem Two

Is there a significant difference in the grade point average of freshmen in Group I compared with freshmen in Group II?

Hypothesis Two

The grade point average of freshmen in Group I will be higher than the grade point average of freshmen in Group II. Table 6 shows the mean averages of freshmen in Group I and freshmen in Group II to be 2.421 and 2.203, respectively. Using the "t-test" for statistical significance, a "t" of 3.11 was computed with a significance of 0.005 or 0.5%. The null hypothesis is rejected at the 0.5% level (See Appendix M Calculations of "t").

Problem Four

Is there a difference in the GPA of Group I compared to Group II with respect to academic majors?

Hypothesis Four

The GPA of students in Group I will be higher than the GPA of students in Group II. (Academic major does make a difference in the GPA of students.)

Tables 10, 11, and 12 provide data that are usable in analyzing this hypothesis. Table 10 shows that for each of the study, the GPA of Group I students majoring in Business was lower than the students of Group II majoring in Business. In the third year of the study, according to Table 10, the GPA's of students in Group II majoring in Education and the Natural Sciences and Technology were higher than the students in Group I. Table 10 shows that throughout the four years of the study, the GPA's were higher for students in Group I collectively than the GPA's of students in Group II. Table 11 shows that for each of the study for students majoring in Business, the F was significant, which indicates major had some effect on the GPA of students.
in Group I. Reject the null hypotheses--major does appear to have made a difference in the GPA. In the third year of the study, students in Group I who majored in Education and Natural Science and Technology had a significant "F." The null hypothesis is rejected.

The data presented in Table 12 show that work is much more significant than major in the first two years of the students enrolled in Norfolk State for 1973-74 and 1974-75. In the last two years, major seemed more critical than working as evidenced by the larger "F" values.

Problems Five - Seven

How significant are rank in high school graduating class (RHS), total college board scores (TCBS), and family income (INC) in predicting the grade point averages of the two groups of students?

Hypotheses Five - Seven

That RHS, TCBS, and INC are related to academic success as determined by grade point averages and thus appear to be worthy of consideration in selecting students for part-time college work-study. The data contained in Table 7 seemed to support the hypothesis. In 1973-74, RHS and TCBS were significant at the 5% level in relation to GPA, with TCBS having the highest "F" value of 93.611 and RHS with "F" of 51.371. For 1974-75 through 1976-77, RHS appeared to be the better predictor of GPA with as "F" of 71.576, 43.857 and 35.473 respectively for each of the last three years of the study. TCBS for the same three-year period, although still significant at the 5% level ranked second in predictive value of GPA's for students included in this study. Family income level was not significant at the 5% level.

SUMMARY

This Chapter presented the data and the statistical analysis designed to identify the relationship of high school rank (RHS), total college board scores (TCBS), family income (INC), major (MAJ), and
work ("W") to the grade point averages (GPA's) of the selected groups of students enrolled in Norfolk State College during the Academic Years, 1973-74 through 1976-77. Each of these variables was assessed in terms of the workability or non-workability of the policy used in selecting students for part-time employment. Workability was measured in terms of the significance of "F"--the larger the "F" value, the more related the variable.

Findings from the data analyzed revealed that (1) RHS and TCBS did relate directly to the GPA of the students studied, while family income (INC) did not produce a strong relationship to GPA after the first year (1973-74); (2) students who worked as freshmen (1973-74) had GPA's that were equal to or greater than GPA's of students who did not work but had other forms of financial aid; (3) academic major did relate to GPA and was strongest in the fourth year of the study (1976-77); and (4) the interaction of work and major to GPA was significant only in the first year of this study (1973-74).

A gross analysis of the data presented indicated for the four years of the study students on work-study as a group had higher academic averages (GPA's) than did those students who were not on work-study (Group II). Also supported by the findings of this study is the validity of the "work-study" policy used in selecting students for work-study. It appears therefore, from the data presented that those students on part-time college work-study were not adversely affected by the work experience.
CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Summary

From the early 1940's to the present, many statements have been made and many opinions and beliefs have been expressed concerning what should be considered as criteria for selecting among financial aid applicants those for student employment. Approaches expressed in the literature prior to the 1960's reflected a perpetuation of the work ethic—work being by its very nature an honorable and self-fulfilling experience. Such an ethic reflected the belief that work fostered responsibility and integrity. While there is still little disagreement concerning the validity of this concept, access to the more favorable working conditions is best achieved when one's educational preparation is more competitive. This competitiveness has expressed itself most frequently through professional preparation and experiences afforded by post-secondary educational institutions. Access to post-secondary educational opportunities has been restricted even when ability or other variables have been uncontrolled. Historically, financial status has been and continues to be the most prohibitive factor for a significant segment of the population in
gaining access to post-secondary educational opportunities, and subsequent gainful employment.

With the enactment of the Civil Rights Amendments of 1954 and 1964 coupled with the Economic Opportunity Act of 1964 and the Higher Education Amendments of 1968, 1972, and 1976, concerns relating to accessibility in Education at all levels began to emerge. Accessibility to higher education has been enhanced primarily by entitlement funds to veterans of World War II and the Korean Conflict. There were a few direct grants to students being made by the Federal Government prior to the National Defense Act (NDEA) of 1958. Even with NDEA of 1958, most federal appropriations to higher education were for research and purchase of equipment, rather than for student aid. From 1965 until the present the trend of federal funding has represented a shift from funds directly to institutions of higher education for research, to direct grants of entitlement nature to eligible students. This procedure does increase student choice of institutions and also enhances accessibility to higher education.

The Higher Education Amendments of the 1970's predated by the Economic Opportunity Act of 1964 have afforded a greater diversity of sources of federal funds available to students pursuing post-secondary educational opportunities.

As an outgrowth of the Economic Opportunity Act of 1964 was the creation of the College Work-Study Program. This program was
designed to enable eligible students to attend class full time and to work part time (not to exceed fifteen clock hours per week, changed to twenty clock hours per week by the Education Amendments of 1972). In addition to providing a regular source of income to be used by the students in meeting on-going educational costs, it also allowed for the acquisition of valuable job-related experiences as an extension of classroom theory and concepts. This latter dimension not previously available, or available in very limited situations--tended to bridge the gap created by the lack of experience so often required by prospective employers.

Emerging with federally sponsored work-study program has been the shift in emphasis from "work for the sake of work," to an emphasis expressing concerns for establishing criteria to be used in selecting students for employment (Gaston, 1973; Van Dusen, 1973), concerns for job descriptions (Perspectives, 1975; Student Financial Aid Handbook, 1976-77), and initiating studies designed to determine those kinds of work experiences that provide opportunities for students "to develop and implement both cognitive and effective knowledge in the job situation" (Little, 1977). Studies have been conducted to determine (1) the effects of work-study on (a) low achieving students (Budd, 1956), and (b) high achieving students; (2) the effects of off-campus work-study versus on-campus work-study on the academic achievement of students (Budd, 1956); (3) the effects of work-study on
the grade point average of students from low income situations; (4) the effects of work-study on freshmen students enrolled full-time; and (5) the effects of work-study on the grade point averages of male versus female students most of the studies have been "one-time" studies, or restricted to a very limited time span, i.e., one semester, one year, students on academic probation versus those students not on academic probation for a given semester.

It was the purpose of this study to investigate the relationship of rank in high school graduating class (RHS), total college board scores (TCBS), family income (INC), and academic major (MAJ) to the grade point averages (GPA) of two selected groups of students enrolled in Norfolk State College during the Academic Years, 1973-74 through 1976-77. Both groups of students were awarded financial aid. Group I students were awarded financial aid packages of which part-time college work-study was a part. Group II represented students awarded financial aid without part-time college work-study. Each of the two groups had 146 subjects, for a sample population of N=292. The variables, RHS, TCBS, INC, and MAJ comprise the criteria used in the policy for selecting students for part-time college work-study.

Conclusions

Within the scope of this study, the findings reported in Chapter IV seem to support the conclusions that follow.

1. Total College Board Scores (TCBS) appeared to be a better
predictor of academic success in the freshman year than rank in class, but for the other three academic years rank in high school class proved to be a more effective predictor.

2. Family income had limited measurable relatedness to GPA. Its relatedness was somewhat greater in the first year of the study. Even in the first year, its relationship with academic success was significant in less than the other two variables—rank in high school graduating class and total college board scores. Perhaps, the limited effects of income on GPA may be attributable to the similarity in family income level of the two groups.

3. Because students on work-study in the first year of the study continued to earn GPA's that were higher than those students not on work-study, it may be concluded that freshmen students with high school ranks in the fiftieth percentile and total college board scores of 650 or higher can work without serious threat to their academic success.

4. Because work-study students who pursued certain academic majors earned lower GPA's than students not on work-study (Group II) with the same academic majors, suggests the possible need for reassessing the work-study policy. Perhaps, students in academic majors requiring extensive laboratory experiences may need adjustments in the number of hours worked—or, in the types of work assignments.
Implications for Utility and Future Research

1. The practice of selecting students on the basis of total college board scores of 650 or above and rank in high school graduating class above the fiftieth percentile produced student sample on work-study with GPA's equal to/or greater than those students not on work-study. Students of Group I continued throughout the study to achieve at a level in which resulted in GPA's which were consistently higher to approximately the same degree than the GPA's of Group II. In other words, work-study does not appear to have impacted negatively upon the academic success of the students involved.

2. Inferred in the literature is the contribution of work-study as an activity related to the academic major (Little and Gasneder). Since this pre-experience often contributes to employability, plans should be made to assign students to meaningful jobs. That part of the work-study policy relating to assigning students to employment on the basis of (1) academic major and/or (2) previous work-related experience should be continued but revised as the job opportunities and/or academic majors change.

Research Suggestion: To what extent is work-study valuable in securing and retaining gainful employment after graduation?

Related Research Suggestion: What is the relationship of work-study assignments during college to gainful employment after graduation or leaving school before graduation?
3. The literature relating to federal funding for student aid appears to indicate a decrease in the proportion of the total aid awarded as direct student loans and supplemental grants with a corresponding increase in Basic Educational Opportunity Grants and College Work-Study. A continued shift in funding patterns in this direction will almost inevitably increase the number of work-study assignments required by a given student population. This will probably necessitate a policy of off-campus job assignments to meet the need. The increased breadth of the assignments might also provide opportunities for more effective correlation of work-study assignments with educational and vocational goals. Such a situation might well reveal a need for more effective counseling for students approaching the work-study experience.

Related Research Suggestions: Could effective academic, career, and personal counseling improve the contributions of work-study assignments by (1) introducing students to new career alternatives? (2) helping students develop more positive attitudes toward work? (3) helping students develop awareness to personal capabilities and limitations related to occupational choice and, to goals that are in keeping with academic potential?

4. Finally, it appears that the agencies funding the work-study programs will increasingly demand more rigorous assessments of the performance of students on their job assignments.
Related Research Suggestion: (1) What are the effects of different types of part-time work assignments on the academic achievement of work-study students? (2) Compare work/major related assignments with non-major related assignments?

This study has added three dimensions to existing research in the area of college part-time work-study. These dimensions include rank in high school graduating class (RHS), total college board scores (TCBS), family income (INC), and academic major as additional factors to be considered in selecting students for work-study as a part of the financial aid package to eligible students. Broadly conceived, the extent to which this study may be applied and/or implemented in subsequent years should be monitored in accord with instructional goals and emerging patterns of financial aid to students.
BIBLIOGRAPHY


Budd, W. C. "The Effects of Outside Employment on Initial Academic Adjustment in College." College and University, 1956, 32:221-223.


APPENDIX A

Institutional Application for Financial Aid
FINANCIAL AID OFFICE
NORFOLK STATE COLLEGE
Norfolk, Virginia

Application for Financial Aid

Academic 19-- 19-- Fall___ Spring___

Year

Year and month to enter Norfolk State College

Expected date of graduation from Norfolk State
College

NOTE: Read each question carefully; answer all questions, and return this application to the Financial Aid Office, Norfolk State College, Norfolk, VA. If you are entering Norfolk State College for the first time, forward this application after submission of your application for admission. FINANCIAL AID APPLICATIONS ARE PROCESSED WITHOUT REGARD TO SEX, RACE, COLOR, OR NATIONAL ORIGIN.

Any person who knowingly makes a false statement or a misrepresentation on this form shall be subject to a fine not more than $10,000 or to imprisonment of not more than five years, or both, under provisions of the United States Code.

Social Security #_________________ Race________________ Date________________

I. PERSONAL INFORMATION (Print or Type)

1. Name___________________________________________
   (Last) (First) (Middle) (Maiden)

2. Permanent Home Address__________________________
   (Number and Street) (City)
   (County) (State) (Zip)

3. Local Address__________________________
   (Number and Street) (City) (County) (State) (Zip)

4. Local Phone #_________________ Permanent Phone #________________
5. Male ___ Female ___ Single ___ Married ___ Separated ___
   Divorced ___ Widowed ___ Date of Marriage ___

6. Date of Birth ___________________ Place of Birth ___________________

7. Are you a U.S. Citizen? ___ Native Born ___ Naturalized ___ If not
   a citizen, state details of your status of citizenship ________________

8. Please list a brother, sister, other relative or close friend, other
   than parents or another students, who will keep in touch with you if
   your permanent address should change:

   Name ___________________________ Relationship ______________________
   His or Her Permanent Address _______________________________
   (Number & Street, (City) (State) (Zip)

9. If you are married, give full name of spouse, including maiden
   _______________________________________________________________

10. Is spouse also in College _____? If yes, where ______________________

11. Check type of financial aid for which you are applying.

   National Direct Student Loan ___ Educational Opportunity Grant ___
   Work-Study ___ General Undergraduate Scholarship ___ Nursing
   Scholarship ___ College Scholarship Assistance Program (CSAP) ___
   Basic Educational Opportunity Grant ___

12. Have you at any time prior to this application, received a scholar-
   ship or loan from any educational institution? ___ If so, list name
   of school, type of scholarship or loan and the amount. ______________

13. Do you live with your parents? ___ Is either deceased? ___ If
    separated, with whom do you live? ______________________________
    How much does each parent contribute to your support? ______________

14. Give the name and address of a character reference in your
    community. ______________________________________________________
    (Name) (Occupation)
    (Mailing Address) (City) (State)
II. EDUCATIONAL EXPERIENCE

1. Major in college ________________________
2. Cumulative average to date ________________________
3. I will be a: full-time ___ part-time ___ transfer ___ evening student ___
5. Previous education (Beginning with secondary school)

   **School                  **Years        **Diploma or Degree
   _________________________ 19__-19__        _________________________
   _________________________ 19__-19__        _________________________
   _________________________ 19__-19__        _________________________

   **List high school last attended; followed by colleges and universities attended.**

6. Special work in which you have been trained:

   **Name of School**        **Type of Training**        **Dates**
   _________________________  _________________________  _________
   _________________________  _________________________  _________
   _________________________  _________________________  _________

   **Specific Skills:** Typing ____ wpm, Shorthand ____ wpm, Computer ____, Driver's License ____ Other ____________

7. If awarded financial aid how do you propose to meet the difference between the amount necessary for you to attend college? ____________

III. EMPLOYMENT INFORMATION

1. Are you employed? _____ Full-time ___ Part-time $___ Weekly Rate
2. Name and address of employer ________________________________

IV. INFORMATION: (Pro-rate for nine months).

   Estimated Expenses
   1. Tuition and required fees $___/AY
   2. Books, instructional equipment and materials $___/AY
   3. Board (or food) $___/AY
   4. Room (or rent) $___/AY
5. Clothing $ /AY 
6. Lunches and transportation for commuting students $ /AY 
7. Personal (cosmetics, haircuts, laundry, etc.) $ /AY 
8. Other costs (itemize on separate sheet and attach) $ /AY 

Estimated Resources Available for Educational Costs
a. From parents, relatives or individual $ /AY 
b. From part-time work $ /AY 
c. From savings $ /AY 
d. From other loans $ /AY 
e. From G. I. benefits $ /AY 
f. From scholarships $ /AY 
g. Veteran orphan benefits $ /AY 
h. From summer employment $ /AY 
i. If married, contribution of spouse $ /AY 
j. Advanced ROTC $ /AY 
k. ROTC scholarship $ /AY 
l. Social security or welfare aid for you the applicant $ /AY 
m. Other sources $ /Month $ /Month

TOTAL RESOURCES $ /Month $ /Month 

APPLICATION CANNOT BE CONSIDERED UNLESS ALL SPACES IN THIS SECTION ARE FILLED IN.

V. INFORMATION CONCERNING FAMILY INCOME AND RESOURCES -- Refer to Instructions.

1. Name of Father/Husband/Legal Guardian __________________________
   Present Address ________________________________________________________
   Street City State
   Occupations ___________________ Annual Income $ __________________

2. Name of Mother/Wife/Legal Guardian _______________________________
   Present Address ________________________________________________________
   Street City State
   Occupation ____________________________ Annual Income $ __________________

3. Indicate whether your family or guardian own __ are buying or renting __ the house or apartment in which they live. What is the value of the house or apartment $ ____________________________

4. Indicate the value of any other property owned by your family or guardians? $ ____________________________
5. Are there other obligations if your parents or guardians such as
loans, notes, bills incurred by sickness or death?
Specify_______________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

6. Federal Income Tax paid 19____ (Last Payment Year) by parents or
guardians $____________________________________

7. Make and year of all family automobiles_____________________________

Other information:

a. List by name, age, and relationship all dependents of parents,
excluding themselves (note any who receive partial support).

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Relationship</th>
<th>School Attending</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IV. CERTIFICATION

In case I am granted aid under the Financial Assistance Programs, I hereby certify that:

(1) I am in need of the aid in order to begin or to continue college;

(2) I am, or will be, properly enrolled as defined by the Officer of the Registrar during the Fall-Spring-Summer Semester (Cross out words which do not apply) of the Academic Year 19____. 19____ which begins in (March) ________________, 19____

(3) I will use the proceeds of the aid only for the payment of tuition and required fees, boards, and room or similarly living expenses; for instructional equipment, materials and books; and for other college related expenses while matriculating at Norfolk State College.

(4) I hereby acknowledge that the information submitted herewith is true and correct and I fully understand my obligations incurred by the assistance granted and the conditions of its repayment, if any.
(5) I (we) agree for release of my financial aid records to external agencies such as Social Security, Welfare, ADC, Vocational Rehabilitation, Food Stamp Agencies, and employment information to prospective employers and other colleges.

Signature of Student ____________________________ Date _____

Signature of Parent or Spouse ____________________________ Date _____
APPENDIX B

Financial Aid Form.
financial Aid form

Sample FAF Cases for Advanced Workshops

(Adopted from CSS Work-Shop for use in this Study).

College Scholarship Service of the College Board, 1978
## Financial Aid Form (FAF)

### Academic Year 1979-80

**Both Name and Case Are Fictitious**

### Student's Information

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student's Name</strong></td>
<td>MURPHY, DANIEL J.</td>
</tr>
<tr>
<td><strong>Address</strong></td>
<td>46-84 PARSONS BLVD, FLUSHING, NY 11367</td>
</tr>
<tr>
<td><strong>City</strong></td>
<td>FLUSHING</td>
</tr>
<tr>
<td><strong>State</strong></td>
<td>NY</td>
</tr>
<tr>
<td><strong>ZIP Code</strong></td>
<td>11367</td>
</tr>
<tr>
<td><strong>Telephone</strong></td>
<td>PHONE NUMBER</td>
</tr>
<tr>
<td><strong>Social Security Number</strong></td>
<td>045 763 210</td>
</tr>
<tr>
<td><strong>Date of Birth</strong></td>
<td>06/12/51</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td>M</td>
</tr>
</tbody>
</table>

### Financial Information

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Taxable income</strong></td>
<td>17. A Wages, salaries, etc. — father or stepparent: $18000</td>
</tr>
<tr>
<td><strong>Other income</strong></td>
<td>18. B Wages, salaries, etc. — mother or stepmother: $600</td>
</tr>
<tr>
<td><strong>Interest income</strong></td>
<td>19. C Interest income: $300</td>
</tr>
<tr>
<td><strong>Dividends</strong></td>
<td>20. D Dividends: $0</td>
</tr>
<tr>
<td><strong>Other income</strong></td>
<td>21. E Other income: $0</td>
</tr>
<tr>
<td><strong>Total income</strong></td>
<td>22. F Total income: $18900</td>
</tr>
</tbody>
</table>

### Parent's Confidential Statement

**Father or Stepparent**
- Name: Patrick J. Murphy
- Address: 46-84 Parsons Boulevard, Flushing, NY, 11367
- Occupation: Policeman, City of New York
- Social Security Number: 032 16 901

**Mother or Stepmother**
- Name: (deceased)

### Parent's Additional Information

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parent's Age</strong></td>
<td>35</td>
</tr>
<tr>
<td><strong>Parent's Educational Attainment</strong></td>
<td>40. A High School: 3 years, 41. B College: 2 years, 42. C Graduate or Professional: 0 years</td>
</tr>
<tr>
<td><strong>Number of Dependents</strong></td>
<td>43. A Members of family: 3, 44. B Non-family members: 0</td>
</tr>
<tr>
<td><strong>Number of Non-Deductible Exemptions</strong></td>
<td>45. A Number of Dependent Exemptions: 3, 46. B Number of Non-Deductible Exemptions: 0</td>
</tr>
<tr>
<td><strong>Number of Members of Family on FAF</strong></td>
<td>47. A Number of family members on FAF: 3, 48. B Number of non-family members on FAF: 0</td>
</tr>
<tr>
<td><strong>Number of Members of Family on FAF, as percentage of total</strong></td>
<td>49. A % of family members on FAF: 100</td>
</tr>
</tbody>
</table>

### Financial Information

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FAF Income Tax Paid</strong></td>
<td>$1871</td>
</tr>
<tr>
<td><strong>IRS Refund Due</strong></td>
<td>$3558</td>
</tr>
<tr>
<td><strong>State and Local Tax Paid</strong></td>
<td>$3160</td>
</tr>
</tbody>
</table>

### Notes
- **Income Tax Paid:** Calculated based on FAF income tax form.
- **IRS Refund Due:** Calculated from IRS Form 1040.
- **State and Local Tax Paid:** Calculated from State and Local Tax form.

---

**Holy Cross R.S.**

"An entering freshman student during 1979-80 who enters each year school 85811 code number. Our base year 1980."
PARENTS' CONFIDENTIAL STATEMENT

Parents' Annual Income

<table>
<thead>
<tr>
<th>Item</th>
<th>1977</th>
<th>1978</th>
<th>Est'd 1979</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAXABLE INCOME</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Wages, salaries, etc. — father or stepfather</td>
<td>18600</td>
<td>18600</td>
<td></td>
</tr>
<tr>
<td>20. Wages, salaries, etc. — mother or stepmother</td>
<td>300</td>
<td>320</td>
<td></td>
</tr>
<tr>
<td>21. Interest income, etc.</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>22. Other income, etc.</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>23. TOTAL INCOME (19 through 22)</td>
<td>18920</td>
<td>18920</td>
<td>18920</td>
</tr>
</tbody>
</table>

Parents' Additional Information

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>30. NAME</td>
<td>Patrick J. Murphy</td>
</tr>
<tr>
<td>31. STREET ADDRESS</td>
<td>46-84 Parsons Boulevard</td>
</tr>
<tr>
<td>32. CITY ZIP</td>
<td>Flushing, N.Y. 11367</td>
</tr>
<tr>
<td>33. OCCUPATION/EMPLOYER</td>
<td>Police Officer, City of New York</td>
</tr>
</tbody>
</table>

Parents' Annual Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th>1978</th>
</tr>
</thead>
<tbody>
<tr>
<td>34. U.S. INCOME TAX PAID</td>
<td>1871</td>
</tr>
<tr>
<td>35. STATE AND OTHER TAXES</td>
<td>1268</td>
</tr>
<tr>
<td>36. MEDICAL AND DENTAL EXPENSES NOT COVERED BY INSURANCE</td>
<td>650</td>
</tr>
<tr>
<td>37. CASUALTY OR DEATH LOSS ( See instructions)</td>
<td>450</td>
</tr>
<tr>
<td>38. UNEMPLOYED ELDERLY AND HIGH-SCHOOL STUDENT TUTION AND FEES FOR DEPENDENT CHILDREN (EXCLUDE CHILDS RECEIVING SCHOLARSHIPS)</td>
<td>1500</td>
</tr>
<tr>
<td>39. OTHER UNUSUAL EXPENSES</td>
<td>4200</td>
</tr>
</tbody>
</table>

Parents' Assets and Indebtedness

<table>
<thead>
<tr>
<th>Item</th>
<th>Present Market Value</th>
<th>Unpaid Mortgage or Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>40. HOME, IF OWNED OR BEING PURCHASED</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>41. OTHER REAL ESTATE</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>42. INVESTMENTS (STOCKS, BONDS, AND OTHER SECURITIES)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>43. BUSINESS (Include interest in all business assets owned in business)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>44. FARM (Include share of all farm assets owned in partnership)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>45. CASH, SAVINGS, AND CHECKING ACCOUNTS</td>
<td>5200</td>
<td>0</td>
</tr>
<tr>
<td>46. CONSUMER INDEBTEDNESS</td>
<td>1500</td>
<td>1400</td>
</tr>
</tbody>
</table>

Divorced, Separated Parents

(To be completed by parent who has lived this part)

47. NAME                                  |          |
| 48. STREET ADDRESS                       |          |
| 49. CITY ZIP                             |          |
| 50. OCCUPATION/EMPLOYER                  |          |
| 51. OTHER INDEBTEDNESS (Debt from 1977 or before. Do not include any debts already owed) | 1400    |
Student’s Information (continued) — All students should complete all items below. Do not leave items blank. Enter zero where appropriate.

<table>
<thead>
<tr>
<th>Student’s Income and Expenses</th>
<th>Calendar Year 1978</th>
<th>Summer 1978</th>
<th>Total Annual Year 1978-1979</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not enter monthly amounts.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43 STUDENTS WAGES, SALARIES, TIPS, etc.</td>
<td>$1400</td>
<td>$1100</td>
<td>$0</td>
</tr>
<tr>
<td>50 SPOUSE’S WAGES, SALARIES, TIPS, etc.</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>52 OTHER TAXABLE INCOME, INTEREST, DIVIDENDS</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>53 ADJUSTED GROSS INCOME</td>
<td>$1400</td>
<td>$1100</td>
<td>$0</td>
</tr>
<tr>
<td>54 MORTGAGE INCOME AND BENEFITS (continued)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>55 FINANCIAL ASSISTANCE FROM STUDENT’S PARENTS</td>
<td>$400</td>
<td>$1200</td>
<td>$0</td>
</tr>
<tr>
<td>56 FINANCIAL ASSISTANCE FROM SPOUSE’S PARENTS</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>57 GRANTS, SCHOLARSHIPS, EDUCATIONAL LOANS, WORK-STUDY, OTHER (see instructions)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

Explanations and Unusual Circumstances

32 Use this space to explain any college income and any unusual circumstances if more space is needed. Attach additional sheets of paper.

27. Casualty and theft losses: uninsured loss from burglary, $50.
29. Other unusual expenses: Helen’s tuition in graduate school. Helen works part-time and borrows through the state guaranteed loan program to cover this.
45. Father is a half-time student at John Jay College, CUNY, on leave.
56. Parents’ association scholarship, Holy Cross High School.

Institutions and Programs to Receive This FAF

51 If you are applying to receive Federal funds from institutions other than the college you are currently attending, attach a list of the names and addresses of such institutions and send the list to the college you are currently attending. Do not enter the 1000 Program in this item if you are applying ONLY to the 1000 Program. Give the item and 50 Bank account number to the proper bank.

New York University, New York, NY 2562
Fordham University, Bronx, NY 2259
St. John’s University, Jamaica, NY 2739

CASH SAVINGS AND CHECKING ACCOUNTS (Do not leave blank)

<table>
<thead>
<tr>
<th>Present Market Value</th>
<th>Unused Mortgage Principal or Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>$700</td>
<td>$0</td>
</tr>
</tbody>
</table>

56 HOME (OWNED OR BEING PURCHASED)

YEAR PURCHASED 1992 | PURCHASE PRICE | $0 |

58 INVESTMENTS (TOTAL VALUE)

<table>
<thead>
<tr>
<th>Present Market Value</th>
<th>Unused Mortgage Principal or Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

60 Check the box next to the number of institutions and programs entered in 51 above and mail this FAF with check or money order for appropriate amount to the College Scholarship Service.
Institutions and Programs to Receive This aid

New York University, New York, NY 2562
Fordham University, Bronx, NY 2259
St. John's University, Jamaica, NY 2799

Basic Educational Opportunity Grant Program

New York University, New York, NY 2562
Fordham University, Bronx, NY 2259

Certification and Authorization

[Signature]
[Name]
APPENDIX C

Financial Aid Need Analysis
### STUDENT'S INFORMATION

<table>
<thead>
<tr>
<th>Last</th>
<th>First</th>
<th>M.I.</th>
<th>Date of Birth</th>
<th>Age</th>
<th>Social Security Number</th>
<th>CSS Identification Number</th>
<th>CSS Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>MURPHY</td>
<td>DANIEL</td>
<td>J M</td>
<td>06 12 61 17 045</td>
<td>76</td>
<td>310 1 1 2</td>
<td>02 14</td>
<td>3259776</td>
</tr>
</tbody>
</table>

### COMPUTATION OF STUDENT'S AVAILABLE INCOME

<table>
<thead>
<tr>
<th>Taxable income</th>
<th>U.S. income Tax</th>
<th>F.I.C.A. Tax</th>
<th>Employment Allowance</th>
<th>Total Allowances</th>
<th>Taxable income after Allowances</th>
<th>Non-taxable income</th>
<th>Social Security Benefits</th>
<th>Veterans Educational Benefits</th>
<th>Assistance from Student's Parents</th>
<th>Other Non-taxable income and Benefits</th>
<th>Student's Available Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### COMPUTATION OF STUDENT'S CONTRIBUTION FROM ASSETS

<table>
<thead>
<tr>
<th>Cash and Bank Accounts</th>
<th>Home Equity</th>
<th>Investments and Other Real Estate Equity</th>
<th>Adjusted Business or Farm Net Worth</th>
<th>Net Worth</th>
<th>Asset Protection Allowance</th>
<th>Discretionary Net Worth</th>
<th>Conversion %</th>
<th>Student's Contribution from Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>700</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>700</td>
<td>0</td>
<td>0</td>
<td>35</td>
<td>245</td>
</tr>
</tbody>
</table>

### COMPUTATION OF PARENTS' AVAILABLE INCOME

<table>
<thead>
<tr>
<th>Taxable and Non-taxable income</th>
<th>Social Security Adjustment</th>
<th>Total Income</th>
<th>U.S. income Tax</th>
<th>F.I.C.A. Tax</th>
<th>State and Other Taxes</th>
<th>Medical-Dental Expenses</th>
<th>Casualty or Theft Losses</th>
<th>Employment Allowance</th>
<th>Standard Maintenance Allowance</th>
<th>Total Allowances</th>
<th>Parents' Available Income</th>
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</thead>
<tbody>
<tr>
<td>18360</td>
<td>0</td>
<td>18360</td>
<td>1871</td>
<td>1070</td>
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<td>450</td>
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<td>2746</td>
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</table>

### COMPUTATION OF INCOME SUPPLEMENT FROM PARENTS' ASSETS

<table>
<thead>
<tr>
<th>Home Equity</th>
<th>Other Real Estate Equity</th>
<th>Investments Equity</th>
<th>Adjusted Business or Farm Net Worth</th>
<th>Cash and Bank Accounts</th>
<th>Net Worth</th>
<th>Asset Protection Allowance</th>
<th>Discretionary Net Worth</th>
<th>Conversion %</th>
<th>Income Supplement</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
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<td>5200</td>
<td>9740</td>
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<td>-272</td>
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</table>

### PARENTS' INFORMATION

<table>
<thead>
<tr>
<th>Family Members in College</th>
<th>Family Status</th>
<th>Unusual Conditions</th>
<th>Asset Income and Income Supplement</th>
<th>Parents' Share of Student's Soc. Sec Benefits</th>
<th>Adjusted Available Income</th>
<th>Total Available Income</th>
<th>Parents' Contribution from Income</th>
<th>Parents' Contribution from Assets</th>
<th>Parents' Contribution for Student</th>
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</thead>
<tbody>
<tr>
<td>5</td>
<td>3</td>
<td>3</td>
<td>G</td>
<td>2474</td>
<td>2474</td>
<td>544</td>
<td>201</td>
<td>-20</td>
<td>181</td>
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### STUDENT'S EXPENSE BUDGETS AND ESTIMATES OF FINANCIAL NEED

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<th>Budget</th>
<th>Duration</th>
<th>Expense Budget</th>
<th>Student's Contribution</th>
<th>Parent's Total</th>
<th>Estimated</th>
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</table>
### Computation of Student's Contribution from Assets

<table>
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<tr>
<th>Cash and Bank Accounts</th>
<th>Home Equity</th>
<th>Investments and Other Real Estate Equity</th>
<th>Adjusted Business or Farm Net Worth</th>
<th>Net Worth</th>
<th>Asset Protection Allowance</th>
<th>Discretionary Net Worth</th>
<th>Conversion %</th>
<th>Student's Contribution from Assets</th>
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### Computation of Parents' Available Income

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<td>2203</td>
<td>100</td>
<td>450</td>
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<td>15614</td>
<td>2746</td>
</tr>
</tbody>
</table>

### Computation of Income Supplement from Parents' Assets

<table>
<thead>
<tr>
<th>Home Equity</th>
<th>Other Real Estate Equity</th>
<th>Investments Equity</th>
<th>Adjusted Business or Farm Net Worth</th>
<th>Cash and Bank Accounts</th>
<th>Net Worth</th>
<th>Asset Protection Allowance</th>
<th>Discretionary Net Worth</th>
<th>Conversion %</th>
<th>Income Supplement</th>
</tr>
</thead>
<tbody>
<tr>
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<td>-4540</td>
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### Parents' Information

#### Computation of Parents' Contribution

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<td>3</td>
<td>G</td>
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<td>0</td>
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<td>544</td>
<td>201</td>
<td>-20</td>
</tr>
</tbody>
</table>

### Student's Expense Budgets and Estimates of Financial Need

<table>
<thead>
<tr>
<th>Budget Type</th>
<th>Duration of Budget</th>
<th>Tuition Fees, Books &amp; Supplies</th>
<th>Living Expenses</th>
<th>Total Expenses</th>
<th>Available Income</th>
<th>Contribution from Assets</th>
<th>Summer Savings</th>
<th>Parents' Contribution</th>
<th>Total Family Contribution</th>
<th>Estimated Financial Need</th>
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</thead>
<tbody>
<tr>
<td>Institutional 1</td>
<td>9</td>
<td>4000</td>
<td>3035</td>
<td>7035</td>
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<td>245</td>
<td>500</td>
<td>181</td>
<td>926</td>
<td>6109</td>
</tr>
<tr>
<td>Institutional 2</td>
<td>9</td>
<td>4000</td>
<td>3245</td>
<td>7245</td>
<td>0</td>
<td>245</td>
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<td>6319</td>
</tr>
<tr>
<td>Institutional 3</td>
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<td>4000</td>
<td>1355</td>
<td>5355</td>
<td>0</td>
<td>245</td>
<td>500</td>
<td>181</td>
<td>926</td>
<td>4429</td>
</tr>
</tbody>
</table>

Note: See the back of this form for footnotes.

**Estimated NY Net Taxable Balance = 11552**

Possibly Eligible for TAP - NY Only

**(Adopted from CSS Work-Shop for use in this study).**

21514 + D88100 + 218405
APPENDIX D

Award and Acceptance Form
FINANCIAL AID OFFICE
NORFOLK STATE COLLEGE
2401 Corprew Avenue
Norfolk, Virginia 23504

AWARD NOTIFICATION AND ACCEPTANCE FORM

__________________________________ Date
Name of Recipient

__________________________________
Address

__________________________________
City and State

__________________________________
Classification

1. Your Estimated Need=Gross $________ minus your
   Estimated Resources* $________=a need of $________
   *Resources included Summer Savings, Social Security, Welfare, VA, etc.

FINANCIAL AID AWARDED
Grant (____)________________________ Work Study (____)____________________
National Direct Student Loan
National Direct Student Athletic Scholarship
Undergraduate Scholarship
CSAP(____)________________________ Other_______________________________
Nursing Scholarship

2. TOTAL AID AWARDED
I accept______decline______the financial aid awards as indicated above.
Reason for declining aid:____________________________________________________

NOTE: Please SIGN, have notarized, and RETURN all copies of this
notification, except for student's copy (gold), within ten (10) days from the above date if you desire to accept this offer of
financial assistance.
AFFIDAVIT OF EDUCATIONAL PURPOSE

WARNING: Any person who knowingly makes a false statement or a misrepresentation on this form shall be subject to a fine of not more than $10,000 or to imprisonment of not more than 5 years, or both, under provisions of the United States Code.

<table>
<thead>
<tr>
<th>(Please Print)</th>
<th>Last Name</th>
<th>First Name</th>
<th>Middle Name</th>
</tr>
</thead>
</table>

I affirm that all Aid Proceeds obtained under authorization of Title IV, Higher Education Act of 1965, as amended will be used solely for expenses related to attendance at the Educational Institution named above.

SUBSCRIBED AND SWORN BEFORE ME THIS ___________ DAY OF ___________ 19 ___________

(Notary Public)

SIGNATURE

Social Security Number Date

(Notary's address)

SEAL
APPENDIX E

Academic Achievement Schedule
ACADEMIC ACHIEVEMENT SCHEDULE

I, __________________________, agree to release the information requested on this form to: Director of Financial Aid
Norfolk State College
2401 Corprew Avenue
Norfolk, Virginia 23504

NOTE: This form should be submitted to your High School Principal or Counselor, to supply the information requested for grades nine (9) through twelve (12); or in the case of a transfer student to the appropriate College Official. You should provide the appropriate person with a properly addressed, stamped envelope and ask that this form be mailed to the address given above.

I certify that __________________________ is presently ranked in the ________ quartile of his/her class. His/her present rank is approximately ________ from the top of ________. His/her grade point average, numerically is approximately ________. (Circle One) on a 7 6 5 4 3 scale; a letter grade of _________.

Person submitting data __________________________
(Signature)
__________________________
(Title)
__________________________
(Date)

(Graduated or will graduate)
Name and Address of Institution Submitting Data

____________________________________________________
____________________________________________________
____________________________________________________
____________________________________________________
APPENDIX F

Work-Study Agreement
STUDENT FINANCIAL AID OFFICE
NORFOLK STATE COLLEGE

WORK-STUDY AGREEMENT

(Please read all conditions of this Agreement)

_________ Federal
_________ Academic Year
_________ Institutional

_________ Summer

Name of Student Worker _________________________________ Soc. Sec. No. __
Employing Agency ________________________________________ Code __________
Supervisor _____________________________________ Dept. ____________
Job Description ____________________________________________________________

WORK SCHEDULE

Effective Date of Employment ________________________________________________

Maximum Hours Per Week _________________ Rate of Pay Per Hour $ __

Maximum Amount of Work Study Grant $ ________________________________

PROVISIONS OF THIS AGREEMENT

1. The Agency employing the student-worker agrees not to discharge the student without first consulting the work-study coordinator in regards to such matter. The Agency reserves the right to discharge the student-worker for any reason which cannot be tolerated in regards to action of the student while in its employ.

2. The student-worker agrees to consult his work-study supervisor in regards to any complaint he may wish to make, and will not sever employment with the employing agency without securing approval of the work-study coordinator.

3. The work-study coordinator agrees to hear all complaints of all parties, and to take the necessary action in reaching a suitable solution to such complaints.

4. The student-worker and work-study supervisor agree not to modify conditions of contract without prior approval of the Financial Aid Office.
5. The student-worker and work-study supervisor agree to keep an accurate record of the recipients and balances of work-study awards to prevent over-expenditure of work-study grant.

6. The student-worker and the work-study supervisor agree to submit all time sheets on the last working day of each pay period to the Financial Aid Office by 1:00 p.m.

7. The work-study coordinator reserves the right to cancel this agreement, if for any reason sufficient funds are not available to support this work-study program.

8. Have you completed your W-4 forms in the College Business Office? Yes No

__________________________________________________________________________
(Date) (Signature of Student Worker)  
__________________________________________________________________________
(Date) (Signature of Supervisor)   
__________________________________________________________________________
(Date) (Signature of Work-Study Coordinator)  

DISTRIBUTION OF COPIES: White--Work Study Coordinator  
Yellow--Supervisor  Pink--Student
APPENDIX G

Work-Study Balance Sheet
<table>
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</tbody>
</table>

124
APPENDIX H

Work-Study Time Sheet
NORFOLK STATE COLLEGE
FEDERAL WORK-STUDY PROGRAM

Soc. Sec. No. ___________________________ Date

To the Business Office

The following is a record of time made by ____________________________

For the period ____________________________ thru ________________________

INCLUSIVE:

<table>
<thead>
<tr>
<th>DAYS OF THE MONTH</th>
<th>Weekly</th>
<th>Weekly</th>
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</thead>
<tbody>
<tr>
<td>1st week</td>
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<td></td>
</tr>
<tr>
<td>2nd week</td>
<td></td>
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</tr>
<tr>
<td>3rd week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5th week</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MONTHLY TOTAL ______

I hereby certify that the above is a true statement of hours worked by the student and that his (her) assigned job was performed in a satisfactory manner.

DO NOT USE THE SPACE BELOW

Hours Approved ______ Rate ______ Am't ______

Approved By ____________________________

Signature of Supervisor __________________

Department or Project ___________________
APPENDIX I

Work-Study Performance Reports
### STUDENT PERFORMANCE REPORT

Name ___________________________  Position _______________________

Social Security # ___________________  Period Employed _____________

Classification During Employment ____________________________

<table>
<thead>
<tr>
<th>EVALUATIVE ITEMS</th>
<th>NUMERICAL RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HABITS OF WORK (Neatness, organization, ability to follow directions, etc.)</td>
<td></td>
</tr>
<tr>
<td>QUALITY OF WORK (neatness, thoroughness, accuracy, promptness, etc.)</td>
<td></td>
</tr>
<tr>
<td>AMOUNT OF WORK (Somewhat equated to time allotted, etc.)</td>
<td></td>
</tr>
<tr>
<td>COOPERATION AND/OR LOYALTY</td>
<td></td>
</tr>
<tr>
<td>ACCEPTANCE OF SUGGESTIONS</td>
<td></td>
</tr>
<tr>
<td>DECISIVENESS</td>
<td></td>
</tr>
<tr>
<td>INITIATIVE</td>
<td></td>
</tr>
<tr>
<td>PUNCTUALLY (Promptness)</td>
<td></td>
</tr>
<tr>
<td>TACTFULNESS</td>
<td></td>
</tr>
<tr>
<td>PROFESSIONAL ATTITUDE</td>
<td></td>
</tr>
</tbody>
</table>

**EQUATED NUMERICAL RATINGS**

1 - Poor, 2 - Fair, 3 - Good
4 - Very Good, 5 - Excellent

(Ratings of 1 and 5 should be justified in writing below)

Signature of Work-Study Supervisor  Date  Department/Area/Agency
APPENDIX J

Financial Aid Average Card
FINANCIAL AID AVERAGE CARD

Student's Name ____________________________________________

Social Security Number ___________________________ Major_____________________

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Date Entered NSC</th>
<th>Classification</th>
<th>Accumulative Average</th>
<th>Average Entered By</th>
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</table>

Date Requested________________________  Date Received________________________
APPENDIX K

Denial Letter
Dear

We regret to advise you that your application for Financial Aid for the First Semester, _____Second Semester _____Summer School 19____, has not been approved for the reason(s) indicated below.

_____ Available resources exceed projected educational costs.
_____ Lack of funds.
_____ Scholastic Average is low. On academic probation.
_____ Failed to receive Confidential Data Form from High School/College.
_____ Failed to receive results of Parents' (Student's) Confidential Statement.
_____ Your (Spouse's) Financial status must be clarified.
_____ Denied admission to Norfolk State College.
_____ No application on file in the Financial Aid Office.

Very truly yours,

Alvin C. Lomax, Director
Financial Aid

P.S. Interim Suggestions:

_____ Apply for a Guaranteed Student Loan from a bank in your hometown.
_____ Apply to your State Higher Education Authority located in your State's Capitol for educational assistance, (for non-Virginia Students).
_____ Enroll for 9 semester hours and pay by the semester hour (approx $22/semester hour or $144 to $150 for 9 semester hours per semester).
_____ Reapply for financial aid once overall average is "C" or better.
_____ If you are desirous of financial assistance for the Spring Semester, _____, complete and return the enclosed Review Request Form no later than November 15th of this year.
APPENDIX L

Computation of "t" Values for Work-Study vs Non Work-Study

Senior Year
Computation of "t" Using Basic Formula

\[
SE_{M(WS) - M(NWS)} = \sqrt{(SE_{ws})^2 + (SE_{nws})^2}
\]

\[
SE_{ws} = \frac{SD}{\sqrt{N}} \quad SD = 0.544, \quad N = 146 \quad \sqrt{146} = 12.083
\]

\[
SE_{ws} = \frac{0.544}{12.083} = 0.04502
\]

\[
SE_{nws} = \frac{SD}{\sqrt{N}} \quad SD = 0.526, \quad N = 146
\]

\[
SE_{nws} = \frac{0.526}{\sqrt{146}} = 0.04333
\]

Substituting:

\[
SE_{M_{ws} - M_{nws}} = (SE_{ws})^2 + (SE_{nws})^2
\]

\[
SE_{M_{ws} - M_{nws}} = \sqrt{(0.04502)^2 + (0.0433)^2}
\]

\[
= \sqrt{0.002025 + 0.001849}
\]

\[
= \sqrt{0.003874}
\]

\[
= 0.06224
\]

The "t" = \[
\frac{2.574 - 2.413}{0.06224}
\]

= 2.59
APPENDIX M

Computation of "t" Values for Work-Study vs Non Work-Study

Freshman Year
Computation of "t" using Basic Formula:

\[ SE_{M(ws) - M(nws)} = \sqrt{(SE_{ws})^2 + (SE_{nws})^2} \]

Given:

\[ SE_{ws_f} = SD \cdot \frac{1}{\sqrt{N}} \]

Where: \( SD = 0.581, N=146, \sqrt{146} = 12.083 \)

Then:

\[ SE_{ws_f} = \frac{0.581}{12.083} = 0.04808 \]

Given:

\[ SE_{nws} = SD \cdot \frac{1}{\sqrt{N}} \]

Where: \( SD = 0.613, N=146, \sqrt{146} = 12.083 \)

Then:

\[ SE_{nws} = \frac{0.613}{12.083} = 0.05073 \]

Substituting:

\[ SE_{Mws - Mnws} = \sqrt{(SE_{ws})^2 + (SE_{nws})^2} \]

\[ SE_{Mws_f - Mnws_f} = \sqrt{(0.04808)^2 + (0.05073)^2} \]

\[ = \sqrt{0.00231} + (0.00257) \]

\[ = \sqrt{0.00488} \]

\[ = 0.06928 \]

Then "t":

\[ = \frac{2.421 - 2.203}{0.069} \]

\[ = \frac{0.218}{0.069} \]

\[ = 3.159 \]

*f denotes calculation for freshman (AY 1973-74)
VITA

NAME: Alvin Clinton Lomax

BIRTH: 12 November 1932 - King William County, Virginia

EDUCATIONAL BACKGROUND:

Graduate

Doctorate in Education (Ed.D), Administration in Higher Education, 1979, College of William and Mary, Williamsburg, Virginia

Advanced Certificate, Administration in Higher Education, 1976, College of William and Mary, Williamsburg, Virginia

Advanced Certificate, Public School Administration, 1969, College of William and Mary, Williamsburg, Virginia

Certificate, Content and Methodology of Teaching College Biology, 1966, Williams College, Williamstown, Massachusetts


M. A. in Educational Administration and Supervision, 1960, Hampton Institute, Hampton, Virginia

Undergraduate

B. S. In Chemistry and Biology, 1954, Hampton Institute, Hampton, Virginia

Military

Certificate, Associate Logistics Executive Development Course, 1972, Fort Lee, Virginia

Certificate of Proficiency, Defense Logistics Instruction Development Course, 1970, Fort Lee, Virginia

Certificate, CBR Warfare School, 1954, Fort Sam Houston, Texas

Commissioned, 2/Lt. United States Army, 1953 through Advanced R.O.T.C., Hampton Institute, Hampton, Virginia

EMPLOYMENT EXPERIENCES:

Assistant Vice President for the Division of Student Affairs, Norfolk State College, Norfolk, Virginia, 1979 to present

Director of Student Financial Aid and Associate Professor of Education, Norfolk State College, Norfolk, Virginia, 1968-1979

Coordinator of Secondary Student Teaching and College Supervision, Norfolk State College, Norfolk, Virginia, 1961 to 1968

Visiting Lecturer, Hampton Institute, Hampton, Virginia (1968, 1969)

PROFESSIONAL AFFILIATIONS:

American Association of University Professors
Kappa Delta Pi National Honor Society
Southern Association of Student Financial Aid Administrators
Virginia Association of Student Financial Aid Administrators

PROFESSIONAL ACTIVITIES:

President, Virginia Association of Student Financial Aid Administrators (1977-78)
President, Elect, Virginia Association of Student Financial Aid Administrators, (1976-77)
Member, Executive Board, Virginia Association of Financial Aid Administrators, (1976-77)
Member, Executive Board, Southern Association of Student Financial Aid Administrators (1977-78)
Member, Financial Aid Advisory Committee to the State Council of Higher Education for Virginia, 1976-78
Member, Virginia State Training Program for Financial Aid Administrators
Presentor, National Association of College and University Business Officers' Spring Conference, 1977, New York Hilton
Presentor, Regional Meeting of College Board, Charleston, South Carolina
Presentor, Annual Conference, Southern Association of Student Financial Aid Administrators, 1977
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The Relationship of Work-Study to the Grade Point Averages of Selected Students Enrolled in Norfolk State College During 1973-1974 through 1976-1977

by: Alvin Clinton Lomax

Student financial aid is of paramount importance to students in gaining access to post-secondary educational opportunities. It is through the availability of grants, loans, scholarships, and employment that students from low and moderate income situations are able to begin and to continue their educational preparation. From these funds students can pay all or major portions of their educational costs, and receive valuable employment experiences that may be career related.

Purpose. The purpose of this study was to determine the relationship of part-time college work-study to grade point averages of students enrolled in Norfolk State College during the period, 1973-74 through 1976-77. In addition, the study was designed to investigate the interrelationship of the variables—family income levels (INC), rank in high school graduating class (RHS), total college board scores (TCBS), and academic major (MAJ) to the grade point averages (GPA) of the selected students.

Population. The population for the study included all students who (1) enrolled in Norfolk State College as freshmen in the Fall Semester, 1973; (2) were awarded financial aid; and (3) remained enrolled through Academic Year 1976-77, on a full-time basis (twelve semester hours or more). Students selected for the study were divided into two groups. Group I (work-study) included 146 students with financial aid packages that included work-study. Included in Group II (non-work-study) were 146 students with financial aid packages, but no work-study. Those students selected for work-study had the higher total college board scores, and rank in high school graduating class.

Analysis of Data. Appropriate data for the study were collected from records contained in the Admissions, Registrar's and Financial Aid Offices of Norfolk State College. These data (RHS, TCBS, INC, and academic major (MAJ) were analyzed for statistical significance using Analysis of Variance and Multiple Regression. The computer program for statistical analysis was developed using the SPSS software package. The "t" test for significant differences was applied to each of the variables.

Findings and Conclusions. The data analyzed revealed that: (1) for each year of the study the GPA's of students in Group I (work-study) were higher than the GPA's of students in Group II (non-work-study); (2) RHS and TCBS related directly to the GPA's of the students in this study, while INC did not produce a strong relationship to GPA after the first year (1973-74); (3) students who worked as freshmen (1973-74) had GPA's that were equal to or greater than the GPA's of freshmen students who did not work but had other forms of financial aid; (4) academic major and the interaction of work and major to GPA was significant only in the first year of the study.

In conclusion, based on the findings which were the results of the hypotheses tested, it appears that GPA's of students on work-study were not adversely affected by the part-time work experience. The extent to which this study may be applied and/or implemented in the future should be monitored in accord with institutional goals and emerging patterns of financial aid to students.