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ABSTRACT

This paper examines the concept of the work-study or cooperative program in higher education and describes how it operates at 6 colleges and universities. Discussion of research results concerning the advantages of such programs is followed by some unanswered questions regarding the true effectiveness of work-study programs. A bibliography in which some items are annotated concludes the paper. (JS)



THE WORK-STUDY PROGRAM IN HIGHER EDUCATION

David N. Portman

U.S. DEPARTMENT OF HEALTH,
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TABLE OF CONTENTS

- Part 1 -- What do we mean by a work-study program in higher education?
- Part 11 -- A study of specific cooperative education programs at several colleges and universities.
- Part III -- A general discussion concerning the advantages of the program.
- Part IV -- A few suggested questions posed for discussion.

Bibliography



PART 1

The cooperative (work-study) program in higher education in this country is not a particularly recent innovation. As early as 1906 the University of Cincinnati worked out a program for their engineering department which encouraged students to participate in a field experience which related to their classroom work. (Henderson, p. 4) Since that time the cooperative education movement has grown steadily if not spectacularly. While the exact number of colleges and universities utilizing a cooperative program is difficult to determine, most writers on the subject suggest about one hundred institutions offering a baccalaureate degree are currently involved. Determining the precise number of such institutions depends on qualifying our definition of cooperative education. Wilson and Lyons, in their detailed study published in 1961, give as good a definition as I have seen:

The cooperative plan of education...is that educational plan which integrates classroom study and practical work experience in industrial, business, government, or service-type work situation. The work experience constitutes a regular and essential element in the educative process and some minimum amount of work experience (at least two different periods of work, totaling at least 16 weeks) and



minimum standards of performance are included in the requirements of the institution for a degree. In addition, there must be liaison between the administration of the institution and the employing firm. The essential criteria ... are that the work experience be considered an integral part of the educational process, and that the institution take a definite responsibility for this integration. (Wilson & Lyons, p.19)

Fortified with this definition of cooperative education, it might be well at this point to take a look at a number of particular institutions offering a program of cooperative education. These institutions should not necessarily be taken as representative of all colleges and universities offering work-study programs. The following were chosen because of their prominence in such activity and because material was readily available.

PART 11

BARD COLLEGE

This four-year Liberal Arts college offers a sevenweek term (Winter Field Period) during which, according to
their most recent publication, students "explore vocational,
creative or intellectual interests away from the campus and
classroom." This Winter Field Period comes every year between the Fall and Spring semesters and lasts from the end
of Christmas vacation until late February.



The college specifies two types of Field Period:

(1) the work-experience and (2) the reading and/or creative project. Students who take the work-experience Field Period find full-time employment, paid or volunteer, in a wide variety of areas - hospitals, schools, settlement houses, laboratories, law and newspaper offices, theatres, to mention a few. Primary responsibility for securing an appropriate position rests with the student himself. Often a student's faculty advisor will assign him supplementary reading in addition to his Field Period job. In general, Freshmen and Sophomores take work-experience projects while more advanced students elect the reading or creative project. During his years at Bard the student generally completes three Field Periods. (Bard College Bulletin, p.16)

GODDARD COLLEGE

The work-experience at Goddard, like Bard, is offered during a special eight-week term between the Fall and Spring semesters. In addition, work periods may also be arranged during the summer. The semester for undergraduates is about fifteen weeks long. Between semesters, students are expected to work on jobs away from the campus for a non-resident term of at least two months. (Students generally select the Winter months of January and February rather than Summer.)

Non-resident work-term jobs have as their major aim giving students some practical face-to-face experience with



parts of American life they may have never before en-In conferences with his counselor and the director of the non-resident term, a student is helped to explore the kinds of work which seem most likely to give him the opportunity for this kind of experience. sources for this field experience include job possibilities discovered by the director, a file of former work-term employers who have indicated they would employ Goddard students again, and persons or situations the student himmay know or want to look into. In any case, getting or keeping a two-month, non-resident term job is the responsibility of the student and a requirement for continued attendance at Goddard. The school lists the following as typical job areas: newspaper offices, artist's studios, filmmakers, broadcasting stations, hospitals, schools, retail stores, and libraries. Some are considered as apprenticeship for professions, while others are taken on a try-out basis by those students unsure of their vocational direction and goals. (Goddard Bulletin, p. 31)

NORTHEASTERN UNIVERSITY

This large New England university offers a five-year cooperative program in the following areas: Engineering, Business Administration, Liberal Arts, Nursing, and Criminal Justice. Students who participate in the cooperative program spend their first year on campus in full-time study. The following four years are arranged on a two-divisional



plan, designated "A" and "B". Students in one division start the college year with a quarter of classroom work, while their alternates in the opposite division are on cooperative work assignments. At the end of the quarter the students in each division change places. This alternation of cooperative work experience with classroom work experience results in each student spending two quarters in school and two quarters on "co-op" during each academic year of the program.

Each student is assigned to a coordinator who is responsible for all phases of the cooperative education program for his group of students. He interviews each student during the Freshman year and counsels him regarding the activities of business, industry, government, and the professions as they relate to the student's career objectives. During each of the quarters at college immediately succeeding a quarter on a cooperative assignment, the coordinator confers with the student about the work experience and other matters related to vocational adjustment or to personal problems while on the job. The students reaction to his situation, coupled with his employers evaluation of his achievement, is used by the coordinator to guide the student toward his career objectives and to help him obtain maximum value from his education.

The range of opportunity is wide, emcompassing all the occupational fields for which the students are preparing



at Northeastern University. In general, the first year of cooperative work can be expected to be of a routine nature, to be followed by increasingly responsible and challenging assignments consistent with the particular student's increase in abilities and aptitudes. Definite training and schedules have been established with many of the cooperating employers. The ultimate objective of such scheduling is the employment of well-trained graduates by the company, though such employment is based on merit rather than guarantee.

At Northeastern University cooperative education is said to have a special appeal for those who need motivation which is sometimes lacking when a student has a constant diet of classroom instruction. (Northeastern Bulletin, pp. 32-33)

ANTIOCH COLLEGE

One of the first colleges in the country to utilize the cooperative plan, as early as 1921 Antioch students combined field work and study. Today, the purpose of the plan, as stated by the college, is to expose students to environments different from those they are used to.

An Antioch student may have different kinds of work and many new personal associations with a variety of employing organizations in contrasting community settings. During his off-campus periods, he tests the relevence of his academic learning to real world situs on. Returning to the campus, he tests his increased knowledge in his continuing academic work, as well as in conversations with advisors



and other students. From this combination of work and study, according to the college, the student gains greater interest in academic work, increased responsibility, and reliance on his own judgment.

In order to manage their co-op plan, Antioch operates on a four-quarter calendar. Entering students are divided into two groups (see chart on page 8). Half of the first year students start classes in July, the other half in October. The July entrants begin their off-campus experience at the end of the summer quarter. In this way, all students are able to enter the work program during the first year of college.

Antioch has been fortunate to secure a great variety of placement opportunities for its students (see partial list of employers on page 9). The jobs, supervision reports, personal interest and advice given to students by employers are an integral part of the Antioch education. The business, professional, and governmental people directing Antioch students are considered the school's "field faculty". The job settings are, primarily, business and industrial, governmental, and non-profit agencies. In all, over five hundred employers in every section of the country cooperate with the college in the placement of its students.

On the job a student has exactly the same privileges and responsibilities as has any regular employee of comparable skill. He is paid directly by the employer, and the money



ALTERNATION OF STUDY AND WORK

Year in College	Quarter of the Year	Summer Entrants	Fall Entrants	
-		Z.ii. uits		
1	Summer	Study		
First	Fall	Work	Study	
Year	Winter	Study	Work	
	Spring	Work	Study	
	Summer	Work	Study	
Second	Fall	Study	Work	
Year	Winter	Work	Study	
	Spring	Study	Work	
	Summer	Study	Work	
Third	Fall	Work	Study	
Year	Winter	Study	Work	
	Spring	Work	Study	
	Summer	Work	Study	
Fourth	Fall	Study	Work	
Year	Winter	Work	Study	
	Spring	Study	Work	

Four-Year Graduation—Especially able students may graduate in four years, although some choose an additional year to enrich their education. In recent years about 10 to 15 per cent of students graduating have completed Antioch in four years.

Fifth Year	Summer Fall Winter Spring	Study or Work Work Study Study Graduation	Work Study or Work Study Study Graduation
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Work periods are 13 weeks long in fall or winter, and 26 weeks long over the spring-summer period. Each student has one or two weeks' vacation each summer, one week at the Christmas holidays, and three days every spring. There is usually time for a vacation quarter in one year of college.



- 9 -

ACCOUNTING, BANKING, INSURANCE

John Hancock Mutual Life Ins. Co., Boston Haskins & Sells, San Francisco Penn Mutual Life Insurance Co., Philadelphia Riggs National Bank, Washington, D.C

ADVERTISING, PUBLIC RELATIONS

Bowen & Gurin, Inc., New York Harshe-Rotman & Druck, Inc., New York

ARCHITECTURE, CIVIL ENGINEERING

Barton-Aschman Associates, Chicago Philip J. Burne, Inc., Melrose, Mass. John Kline, Springfield, Ohio

ARTS AND CRAFTS

Baldwin Pottery, New Hope Pa.
Bennington (Vt.) Potters
Design and Production Inc., Alexandria, Va.
Images by Kamen, Cold Spring Harbor, N.Y.

BUSINESS - MISCELLANEOUS

Employers Commercial Union, Boston IBM World Trade Center, New York Tishman Realty, New York Arthur Young Management Control Corp., New York

FILMS

American Film Producers, Inc., New York Janus Films, New York

GOVERNMENT - ALL LEVELS

Bureau of Labor Statistics, New York Food and Drug Administration, Washington Geological Survey: Denver and Menlo Park, California Jackson (Miss.) Chancery Clerk Massachusetts Dept. of Correction, Boston

RETAILING

B. Altman & Co., New York Jordan Marsh & Co., Boston

SOCIAL AND POLITICAL AGENCIES

United Farm Worker, Delano, California Urban League, New York



he earns essentially covers his living experses while offcampus. In certain instances modest amounts can be saved
toward other college expenses. Jobs are secured and
arrangements for them are made by extramural faculty of the
college. With permission of this extramural faculty advisor, a student may arrange his own job, or he may undertake an independent study project during a work period.

An entering Freshman is assigned to a preceptor and a preceptoral group. The preceptor calls upon extramural faculty members for meetings and individual conferences that orient the student to the work program and, to a degree, prepare him for the off-campus experience. He has the help of library materials, job reports written by students, descriptive material supplied by employers, and conversations with other students who have held jobs in which he is interested. Evaluation of the experience is the subject of continuing dialogue with the extramural faculty. Field visits each quarter provide opportunity for conferences with the field faculty in the job setting about the student's educational growth. Upon his return to the campus, the student, with his preceptor and his advisor, evaluates his progress in the light of his off-campus experience. Useful to this evaluation are comments and formal performance ratings from the field faculty, extramural staff comments noted during field visits, and the students own report of his experiences. The evaluation is designed to help the



- 11 -

test and reshape his life aims. (Antioch Bulletin, pp.154-72)

MOHAWK VALLEY COMMUNITY COLLEGE

At this community college, cooperative education is based on the philosophy that a college graduate is better prepared to begin his career when his classroom work has already been combined with career work experience. At MVCC students from six different career programs participate in cooperative education and must successfully complete two quarters of employment, or their equivalent, to receive a degree. The following departments participate in the co-op program: (1) Advertising Design and Production, (2) Banking, Insurance, and Real Estate, (3) Civil Technology, (4) Electrical Technology, (5) Mechanical Technology, and (6) Retail Business Management. The cooperating employers are principally business and industrial organizations operating in New York State and various state, county and municipal agencies.

All Fleshmen who matriculate in the six programs listed above spend their first two quarters on campus. Then, just prior to the third quarter, the class is divided into two groups, "A" and "B" (see chart on p. 12). As you can see from this plan, none of the academic part of the program is sacrificed to make room for the work periods. Instead, courses are continued through the Summer Quarter of both the Freshman and Senior years, which enables all students to



	FRESHMEN YEAR			SENIOR YEAR				
j	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer
Group A	Study	Study	Work	Study	Work	Study	Study	Study
Group B	31007		Study	Work	Study	Work		

TYPICAL TRAINING POSITIONS

ADVERTISING DESIGN AND PRODUCTION

Assistant in Various Departments of Advertising Agencies
Assistant in Printing House and Other Supply Houses
Assistant to Manager, Retail or Industrial Advertising Departments
Layout Artist
Assistant in Broadcast and Print Media

BANKING, INSURANCE AND REAL ESTATE

Teller

Mapping Clerk

Salesman (Real Estate) (Insurance)

Data Processing Clerk Underwriting Clerk

CIVIL TECHNOLOGY

Rodman Inspector

Surveying Crew

Chain Man Draftsman

Laboratory Assistant

ELECTRICAL TECHNOLOGY

Electronics Lab Assistant
Electrical Junior Draftsman

Assistant Technician Tester

MECHANICAL TECHNOLOGY

Draftsman
Laboratory Technician
Manufacturers Engineering Assistant
Quality Control Aid.

RETAIL BUSINESS MANAGEMENT (trainees in)

Buying Sales Promotion Operations Personnel Control



attend classes for two full academic years - three quarters as a Freshman and three quarters as a Senior.

Although the student shares the responsibility of securing the necessary work emperience, MVCC has a staff of coordinators who locate desirable employers and assist the student in obtaining a worthwhile job experience. The staff stays in contact with the student and the employer throughout the work periods, appraising work reports submitted by the student and studying employer appraisals. This staff then determines whether or not the student has satisfied the work requirement necessary for the degree.

The cooperative work periods may be waived only when necessity or prior work experience dictate. According to the college, the student participating in the cooperative education plan has the opportunity to:

- -- Learn the basics of his profession.
- -- Relate classroom theory to job experience.
- -- Develop his own reliability and cooperativeness.
- -- Exercise judgment and help make decisions.
- -- find out whether he has chosen the right career early in his college education.

 (MVCC Bulletin, pp. 30)

UNIVERSITY OF ARIZONA - FEDERAL GOV'T PARTICIPATION

In addition to the work-study programs initiated and operated by the colleges and universities, the National Government is actively supporting cooperative education in



a number of areas. For example the University of Arizona jointly operates with the Government in maintaining a work-study program in engineering. The plan requires the student to finish all of his Freshman courses with a grade average of 2.5 or better, after which he will alternate work with study in six month periods. The work is done in Government agencies or industry. The University claims this work program from the second year on (5-Year program), will almost pay for the remainder of the students higher education. (Univ. of Arizona Bulletin, P.216)

The College of Mines at the University of Arizona also operates a program in conjunction with the National Government. Selected students are assigned to various research centers and laboratories of the U.S. Bureau of Mines and work under the administration and guidance of Bureau scientists on investigation and research currently of importance to industry. Bureau of Mines scientists furnish to the faculty of the University a report on the efficiency of the student. A faculty member, usually the professor of the department in which the student is enrolled, is placed on the Bureau of Mines Payroll to supervise the student in his program. (Federal Educational Policies... p. 65)



PART 111

Wilson and Lyons in their comprehensive study of cooperative education outlined the following advantages of the work-study program in higher education:

- (1) By coordinating work experience with the campus educational program, theory and practice are more closely related and students find greater meaning in their studies.
- (2) This coordination of work and study increases student motivation. As students see connections between the jobs they hold and the things they learning on the campus, greater interest in academic work develops.
- (3) For many students work experience contributes to a greater sense of responsibility for their own efforts, greater dependence upon their own judgments and a corresponding development of maturity.
- (4) Because the work experiences involve students in relations with other workers who come from a wide variety of backgrounds, and because success in these jobs requires constructive relationships with colleagues, most students in cooperative education develop greater understanding of other people and greater skills in human relations. Particularly important in this connection is the value obtained from the contacts made with adults



in a variety of situations, thus helping to break down the segregation of college students into a wholly adolescent community.

- (5) Cooperative education helps markedly orient students to the world of work. Most college students are greatly concerned about their future life work. They want to know more about the range of occupations available to them and the potentials and limitations of these fields. They want to know about the qualifications demanded and their own fitness for them. Cooperative education furnished students with opportunities for exploring their own abilities in connection with real jobs and they find a direct means of gaining vocational information and vocational guidance not only in the occupation in which they are employed but in a number of related fields as well. They have a chance to test their own aptitudes more fully than is normally possible on the non-cooperative campus. Furthermore, in many programs, students are able to understand and appreciate more fully the meaning of work to the individual and the function of occupation in providing the wide range of goods and services which are characteristic of our economy.
 - (6) From the standpoint of the nation with its increasing need for well-educated people in science, engineering, business, the professions, etc., as



well as from the standpoint of individual selfrealization, cooperative education has an
important value in making higher education
possible and attractive to many young people who
would not otherwise not go to college. The earnings of the students while on the job have enabled
many to attend college who could not finance their
education without. The assurance of having a job
while in college makes cooperative education
appear practical and attainable to many youths
and their families who have had no previous connection with colleges and who are skeptical of
their own potential for college work.

- (7) As work programs are planned and developed and as the students rotate from college to work and back to college again, the faculty is better able to keep in touch with business, industry, the professions, and governmental agencies. In many colleges and universities information gained through these contacts is used in planning the curriculum and in teaching, thereby contributing educational vitality.
- (8) Because cooperative education is commonly organized so that half the student body is on campus, the plan permits more efficient utilization of the college plant and related facilities. Many colleges and universities use their facilities in a very



limited way during the Summer. In most cooperative institutions the plant is used throughout the year. The arrangement makes it possible to graduate more students than the conventional program using the same facilities. From 14% to 60% more students can be graduated, the exact percentage depending on the specific rotation plan, the number of years during the student's career when he is involved in a workstudy plan, and the number of years the program has been in operation. (Wilson & Lyons, pp.6-8)

In addition to the above educational advantages or values of cooperative education Wilson and Lyons further argue that:

- (1) From the employers point-of-view this plan provides a means of maintaining a steady flow of trained personnel.
- (2) Cooperative education furnishes to the student contacts which may be useful in later occupational placement.
- (3) Colleges may well find that cooperative education provides greater recognition by the community of the services the colleges are rendering to it and thus furnish an additional basis for moral and financial support to the colleges from the community. (Wilson & Lyons, p. 8)



PART 1V

If it is true that...

- (A) cooperative programs re-inforce learning, create a sense of reality in learning, and establish a relationship between theory and practice,
- (B) encourage more efficient plant utilization and integrate the institution more closely with the community,
- (C) and benefit society as a whole by attracting to college some talented young people -- children of families without a tradition of higher education,

...the question remains, why, after years of limited growth, do a relatively small percentage of colleges and universities utilize the work-study program?

The above question and the following are suggested as possible points of further discussion:

- (A) Does cooperative education tend to "fit" young adults into an imperfect society, materially oriented, thereby encouraging its perpetuation and discouraging change?
- (B) In the case of Antioch, and possibly other colleges and universities, the extensive co-op program reduces the amount of time actually spent on campus and in the classroom. Is this compatible with the modern Liberal Arts curriculum?



- (C) poes persistent adult unemployment suggest that available jobs go first to adults with family responsibilities and with a need for the feelings of personal worth which can accompany a job, rather than to students? (Brown and Mayhew, p. 77)
- (D) Are business cycles a serious handicap in developing a stable cooperative program?



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