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AN EMERGING PROGRAM OF COOPERATIVE EDUCATION FOR THE WARWICK PUBLIC SCHOOLS, GRADES 9-12.

BY- CASEY, RAYMOND P. AND OTHERS

WARWICK SCHOOL DISTRICT, R.I.

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THE DEVELOPMENT OF VARIOUS WARWICK PUBLIC SCHOOLS WORK-STUDY PROGRAMS THROUGH COOPERATION WITH LOCAL BUSINESS AND INDUSTRY LED TO THE CREATION OF THE POSITION OF BUSINESS-INDUSTRY-SCHOOL COORDINATOR (BISC). THE HISTORY OF THE DEVELOPMENT OF THIS POSITION IS TRACED. QUALIFICATIONS FOR THE COORDINATOR ARE GIVEN; AND BISC DUTIES ARE OUTLINED. SPECIAL EMPHASIS IS PLACED ON A COOPERATIVE PROGRAM FOR MENTALLY HANDICAPPED CHILDREN. THE RESPONSIBILITY OF THE BISC TO THE COMMUNITY INVOLVES INTERACTION WITH BUSINESS, LABOR, INDUSTRY, GOVERNMENT, SCHOOL COMMITTEE, SCHOOL ADMINISTRATION, GUIDANCE DEPARTMENT, PARENT, PUPIL, AND TEACHER. GUIDELINES FOR SCHOOL-COMMUNITY RELATIONS ARE PRESENTED. JOB PLACEMENT RESPONSIBILITIES ARE THE DIRECT RESPONSIBILITY OF THE BISC. VARIOUS WORK-STUDY PROGRAMS ARE DISCUSSED. A SPECIAL WORK-EXPERIENCE PROGRAM FOR MENTALLY HANDICAPPED CHILDREN HELPED TO ALLEVIATE THE DROPOUT PROBLEM. THE CHILDREN WORK AND ATTEND CLASS ON AN ALTERNATE-WEEK BASIS. ORIENTATION PERIODS INCLUDE GUEST SPEAKERS AND FIELD TRIPS IN BOTH OCCUPATIONAL AND SUBJECT-MATTER AREAS. TEN SPECIFIC OBJECTIVES AND FIVE CRITERIA FOR STUDENT SELECTION ARE LISTED. THE BISC WAS ALSO MADE RESPONSIBLE FOR THE INVESTIGATION, EVALUATION, AND IMPLEMENTATION OF FEDERAL AND STATE LEGISLATION PERTAINING TO EDUCATION. FEDERAL LEGISLATION APPLICABLE TO THE WARWICK WORK-STUDY PROGRAM IS OUTLINED. A 13-ITEM BIBLIOGRAPHY IS INCLUDED. (RS)

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AN EMERGING PROGRAM  
OF  
COOPERATIVE EDUCATION

Public Schools of  
WARWICK; RHODE ISLAND

No. 0500

1965

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE  
OFFICE OF EDUCATION

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of  
COOPERATIVE EDUCATION  
for the  
WARWICK PUBLIC SCHOOLS  
Grades 9-12

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Dr. Clarence S. Taylor  
Superintendent of Schools

## TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENT . . . . .	i
INTRODUCTION . . . . .	ii
HISTORY OF BISC . . . . .	1
DUTIES OF BISC . . . . .	3
SCHOOL-COMMUNITY RELATIONS . . . . .	10
Areas of Responsibility . . . . .	10
Typical BISC Activities . . . . .	11
Business-Education Day . . . . .	11
Warwick Industrial Advisory Council . . . . .	13
GUIDANCE ASPECTS OF BISC. . . . .	14
JOB PLACEMENT RESPONSIBILITIES . . . . .	17
COOPERATIVE WORK-STUDY PROGRAMS . . . . .	20
Function of BISC . . . . .	21
Academic Instruction . . . . .	21
School Training Program . . . . .	26
Work-Experience Program for Retarded Children . . . . .	32
FIELD TRIPS AND GUEST SPEAKERS. . . . .	38
RESEARCH ON NEW FEDERAL LEGISLATION . . . . .	40
Vocational Education Act . . . . .	40
Economic Opportunity Act . . . . .	41
National Defense Education Act . . . . .	44
Elementary and Secondary Education Act . . . . .	44
Manpower Development and Training Act . . . . .	45
Area Redevelopment Act . . . . .	45
BIBLIOGRAPHY . . . . .	47

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A special word of thanks is also due to Mr. William Dolan, Supervisor of Guidance and Counseling for the State Department of Education. Through his efforts a special grant was secured which helped to defray the cost of the BISC workshop held at Warwick Veterans Memorial High School during the summer of 1965. Special recognition is due to Mr. Edward Underhill, Vice-President of Sales, Sealol Incorporated Warwick and Mr. William Lang, Administrator, Kent County Hospital, for their invaluable aid in expanding cooperative programs in the Warwick Schools. In addition, the workshop received helpful comments from Mr. Thomas Lavery and Mr. John Venditto both former BISC officials.

### Chairman

Raymond P. Casey  
Business-Industry School Coordinator

### Special Assistant

Dr. Edward G. Hunt  
Director of Curriculum

### Participants

Mr. Elmer Anderson	Mr. James Healey
Mr. Lawrence Arnold	Mr. Henry Tarlian

## INTRODUCTION

A combination of circumstances has recently focused attention on the field of cooperative education in Warwick. The development of various work-study programs through cooperation with local business and industry has been a concern of the Warwick School Department since 1958 when the position of BISC, Business-Industry-School Coordinator, was created. New federal legislation that encourages this type of school activity, its known potential for meeting the curricular needs of certain students, and the current emphasis on preventing school drop-outs--all of these factors are bringing new importance to the area.

The Business-Industry-School Coordinator continues to play a key role in the expanding field of cooperative education, but a greater understanding of that role by his professional colleagues is now required in order to achieve great instructional improvement. A greater appreciation of the educational opportunities offered in our many work-study programs is also highly desirable. The dual purpose of the present manual is to foster both the understanding and the appreciation noted above.

Dr. Edward G. Hunt

Director of Curriculum

## HISTORY OF BISC

At the outset it may be noted that since the position of Business-Industry-School Coordinator (BISC) was a pioneering effort in the Warwick School Department much of the history of its development must be obtained from interviews of the principals involved, and documents on file at the office of BISC. These principals include the originator of such a position, the first person to hold the office, and subsequent BISC officials. Documents involved would include monthly reports, correspondence, and directives issued to BISC.

Through interview, it was learned that the BISC position evolved from a workshop organized by the School Superintendent of Warwick during the years 1953-1955. This workshop was coordinated by the Director of Curriculum with the purpose of exploring the possibility of establishing a Comprehensive High School Program including a workable Industrial Arts Curriculum.

It was the industrial aspect of curriculum which prompted such a workshop with representatives from industry, labor, school, and other interested citizens of the community. For two years the workshop met regularly and finally aided in setting up an Industrial Arts Program as is now operative



in the Warwick Schools. It may be noted that professional advisors from other states were employed to aid in finalizing the program.

With the program in effect the workshop committee continued to meet in an advisory capacity when it occurred to the Curriculum Director that there should be some one person employed by the school system to act as a coordinating factor (liaison as it were) between industry, business, labor, and education. Thus, after the need for such a person was pointed out to the school committee, the BISC office was originated.

With the establishment of the office of BISC it was evident that qualifications for the office should be drawn up carefully. After much consideration, the following knowledges, skills, and capacities were found to be essential prerequisites for appointment:

1. The ability to get along with people;
2. The ability to communicate verbally;
3. The ability to interpret the needs of business and industry;
4. Skill in interviewing;
5. The capacity to interpret several evaluative criteria and to make a judgement thereof;
6. A knowledge of labor laws and labor union practices.



The nature of the office precluded a thorough knowledge of academic areas because it was felt at the time that the majority of the tasks of BISC would be vocationally oriented.

The time expiration, from initial workshop meetings until an official was appointed to BISC, covered a span of four years. In the fall of 1957 the office was filled and operated on a part-time basis. The reasoning was that an office which would link the business community to the schools need not be a full-time operation. However, when it became apparent that the scope of BISC duties covered many aspects of cooperative education and business meetings, the services of the office became available on a full-time basis in September of 1960.

#### DUTIES OF BISC

Purposes for the existence of BISC were clearly defined in the minds of the administration; (as stated in the History above) qualifications had been drawn up and satisfactorily filled; but the function of BISC, the method to be used to fulfill its purposes, the machinery with which to satisfy the community and school needs, had yet to be established. This problem as it is with almost every

pioneering endeavor had to be dealt with and solved to some extent by an evolutionary process developed by the coordinator.

When the Business-Industry-School Coordinator became operative, a general statement of duties was outlined for the office. This official would be the first to examine and experiment with these duties in order to more clearly outline the specific workable aspects of BISC. In addition to the problem of initiating these duties, which shall be outlined below, the most pressing problem was one of contact with industrial and business personnel who could effect a workable cooperative program in conjunction with the community secondary schools.

The duties included:

1. Supervision and correlation of the related work experiences of cooperative education pupils in the educational areas of industrial arts
2. Office practices and retailing
3. Promotion of interest in the program
4. Development of training plans
5. Development and organization of instructional materials
6. Placement of eligible students in qualified employment training situations
7. Follow up of trainees on their jobs

8. Placement of students in both part-time and full-time jobs
9. The securing of the services of business and industrial personnel at the request of classroom teachers
10. Student vocational counseling.

A further detailed report of work performed by BISC may be found on pages 2132.11a and 2132.11b of the Warwick Staff Handbook.

The first year of operation of BISC was spent laying groundwork for programs which could be placed into effect during subsequent school years. Activities such as the cooperative work-school week, cooperative work program, contacts for engaging speakers to come into classes, plans for arranging field trips, appointments for informing the community of BISC functions, and speaking appearances before community business and civic groups point out the direction of the BISC office during its initial year of existence.

Guest speakers from many facets of the business-industry community were obtained for various departments of the secondary schools. Topics such as Labor, Management, Investments, Court procedures, Insurance, Discrimination, and Research Science were discussed by the invited guests.

Donations of teaching aids such as cut-away views of motors, scrap metal, magazines, films, and auto parts were obtained through the BISC office.

Student field trips to museums, housing developments, investment houses, technical schools, and nursery schools were arranged by the BISC office.

The BISC official also incurred speaking engagements to parent-teacher organizations, the chamber of commerce and other related community organizations.

Much of the activity of the office was designed to further implement the inroads made in services provided to both the school and business communities in 1958-1959. Though it is evident from the total figures for job placement that the economic upturn which had been expected did not occur, the BISC office reported optimism for the following school year.

During the second year of activity, field trips, speakers, and related areas continued apace and a luncheon meeting of businessmen, industrialists, labor leaders and educators was held where problems as well as successes were discussed which gave rise to the optimism noted above.

For the first time since its inception, the BISC office was a full-time venture beginning in September of

1960 and expanding cooperative program ventures are in evidence in many and various fields. While the concentration of effort had been in industrial arts students, there existed many other students whose education would have been terminated after high school graduation. The college preparatory student who would not go on to college presented a problem of possessing a non-marketable vocation skill. To better provide for this group, a program of on-the-job training was instituted.

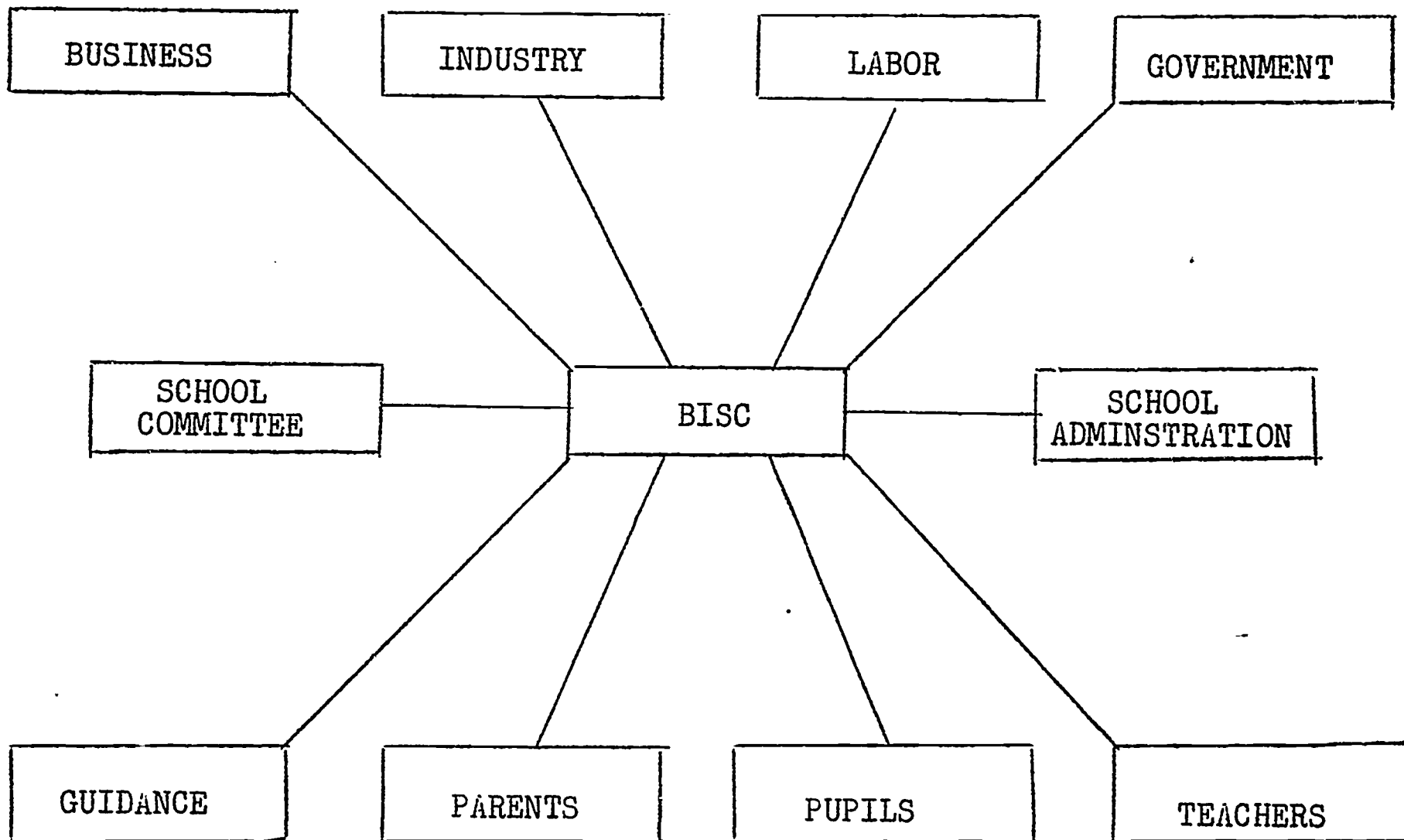
Another innovation in the City of Warwick was the inauguration by the Warwick School Department of a Business Education (B-E) Day, whereby teachers were invited by businessmen to be their guest for a day to visit their plants, to have luncheon with them, and to discuss business and school problems.

A system of check-out whereby a student who wished to drop out of school had to clear through the BISC office was instituted. The purpose was first to try to dissuade the dropout from carrying out his plans and secondly, if unsuccessful, to aid the dropout in finding some type of employment.

In keeping with a Federal plea for more education of the retarded youngster, special emphasis was placed on a cooperative program for this group.

Current duties and responsibility of BISC have followed along the guide lines established by the office in its formative years. The acquisition of guest speakers, provisions for field trips, speaking engagements, and Warwick Advisory Council meetings are still very much in evidence. Cooperative programs are functioning at levels consistent with previous years. During the current year (1965) BISC has become involved with a program of investigating various pieces of educational legislation, evaluating such legislation as it applies to the school system, and reporting such findings to appropriate school officials for implementation. The Neighborhood Youth Corp, Operation Headstart, and Area Vocational School Projects are specific examples of the emerging activity in this area of endeavor. The details of the specific aspects of the BISC functions shall be treated of in the following pages.

RELATIONSHIP OF BISC TO THE COMMUNITY





## SCHOOL-COMMUNITY RELATIONS

The person responsible for BISC in the schools meets leading citizens in various areas of the community. It is important for the Coordinator to represent the school system in the best possible manner because in so doing he will encourage civic understanding and participation in the task of preparing youth for adult citizenship.

### Area of Responsibility

1. Determining the wants and needs of local business and industry and explaining these to various education officials such as the school committee, the superintendent of schools and other administrators, guidance personnel, and subject matter teachers
2. Public relations with federal government (Congressional representatives and staff of federal agencies)
3. Public relations with state government, (Governor and staff, State Department of Education)
4. Public relations with local government (Mayor and staff, City Council)
5. Public relations with local press, radio, and television.

It is the responsibility of BISC to keep in close touch with various segments of the community, to keep them informed as to new developments in the school system, and to carry back to the schools new developments in the community.

**Typical BISC Activities:**

1. Guest on radio programs
2. Guest speaker for each of the four grades in senior high school
3. Invitation to participate on a panel for the Governor's Conference on Children and Youth
4. Host to an industrial advisory group at an annual luncheon
5. Guest speaker at P.T.A. meetings
6. Participant in meetings of small groups of industrialists and business men.

**Business-Education Day**

The Business-Education Day was originally designed as a three phase program in order to:

1. Enable teachers to visit Industry
2. Enable industrial leaders to present their needs and opportunities to students
3. Enable interested students to visit specific industries.

The Rotary Club of Warwick was the original sponsor of this project. In the first phase teachers are the guests of business leaders presenting an opportunity for each group to exchange ideas and to gain a better understanding of the problems of business and education. The program includes a visit with top executives of the host company, a tour of the plant, luncheon as guest of the host company, and a discussion of school and business problems so that information can be brought back to students in the classroom.

During the second phase of the program representatives of industry and labor conduct career day sessions in the schools. Students have an opportunity to discuss specific job opportunities directly with their potential employers. The professional counsel of guidance personnel is available to evaluate student interest, and capabilities, in regard to these local opportunities.

In the final phase, interested students have the opportunity to visit industry and examine the world of work in operation.

Since the inception of BISC, phase one of this endeavor has been operational with particular stress placed

on those teaching fields which have been deemed most appropriate: business, industrial arts, and guidance. Full implementation of this program in its second and third phases must await the development of appropriate and feasible administrative procedures.

#### Warwick Industrial Advisory Council

The Warwick Industrial Advisory Council was originally created to assist school authorities in developing a curriculum in Business and Industrial Arts. The membership of this body embraces a representative cross section of our local leaders in industry, labor, government, and education. Meetings are held periodically to discuss various current problems.

A guest speaker may discuss such topics as The Drop-out Problem, Vocational Education in a Comprehensive High School, or Participation in Vocational Education Programs. A general discussion follows on the specific topic presented and a representative consensus of informed thinking is obtained to guide our efforts in maintaining quality education.

Succinctly, the BISC function here is to arrange and

coordinate these meetings in order that they may prove meaningful to all concerned, and so that a continuing commitment of metropolitan labor and industry leaders to school programs may prevail.

In recent guidelines issued by the Rhode Island State Department of Education the formation and operation of such an advisory council is urged in order to implement all facets of the Vocational Education Act of 1963 as it applies to the development of area vocational education facilities. Fortunately, in Warwick, such a council will not be a first effort, but an affirmation of the carefully nurtured liaison which already exists in this area

#### GUIDANCE ASPECTS OF BISC

The guidance department, with its permanent record cards, individual folders, daily personal contact with students, and close association with parents, is a valuable source of information for BISC. Information thus gained can be used not only to understand the student better, but to place him in positions best suited for his development.

An important task of the guidance department is to

provide BISC with information concerning the individuals who apply for part-time or full-time work. The department is a catalyst rather than a decision-making agent, having at its disposal every record made by a student from the moment he enters the Warwick school system.

The following is a representative list of data given BISC by the guidance department:

1. Social and economic status of students
2. Scholastic and test records of students
3. Names of students who are desirous of seeking part or full-time employment
4. Names of drop-outs (for further counseling)
5. Names of former students who are seeking employment
6. Names of needy students for counseling in regard to staying in school
7. Information on former students seeking employment.

#### From Guidance to BISC

1. I.Q., achievement, interests, and current academic standing of student
2. Information on family background:
3. Attitude of teachers toward student
4. Attitude of student toward teachers
5. Relationship of students to their peers and various school authorities.

### From BISC to Guidance

1. Resource speaker for group guidance
2. Counseling of potential drop-outs
3. Contact and follow-up of drop-outs
4. Results of testing from outside sources such as industry, D.E.S., and the various armed services
5. Communications from various armed services
6. Monthly report of all students who have accepted part-time jobs
7. Assistance in vocational counseling.



## JOB-PLACEMENT RESPONSIBILITIES

The recruitment and selection of students for placement in part-time or full-time jobs and in various cooperative programs is the direct responsibility of BISC on an evolving and continuing basis.

In field trips to personnel offices in the metropolitan area, three meaningful objectives are operable. First a detailed explanation of the specific cooperative program which might apply to a particular employer is outlined and specific implementation of the program is sought. The second objective is to locate specific job openings in various skill areas solicited for present placement on a part-time basis, as well as for future full-time employment. Finally, the potential employer is encouraged to present his specific employment problem and any ideas he may have about solving the same in relation to our ability to cooperate in this endeavor.

This personal contact has proved invaluable in building rapport with appropriate industry and craft union officials. In many instances an immediate job placement or involvement in a cooperative program does not result from the contact thus made, rather, it has

been the experience of each succeeding BISC official that the groundwork laid by his predecessor has over a period of time provided the areas for fruitful harvest. The following outline illustrates how a typical job placement is made:

1. Job solicitation by employer
2. Reference of BISC to registration file of available candidates; contact with guidance counselors of candidates or direct contact with teachers in various academic fields
3. Identification of several acceptable students
4. Briefing of students by BISC on job requirements and job qualifications
5. Reference of candidate to Employer
6. Employer and student interview
7. Employer's decision

At times certain emergency cases arise where students, due to economic reasons, have need of a job immediately. Here BISC contacts various establishments until a specific placement occurs.

The facilities of the Department of Employment Security are also available for part and full-time jobs. The student is referred to D.E.S. where he is tested and placed concurrently with the continuing efforts of BISC

to obtain work opportunities.

Students desirous of work are referred to BISC either by direct contact or counselor referral. Any student may apply to the BISC office and be interviewed. The interview record is placed on file for future placement.

When jobs become available, students are called in by the Coordinator for interview. If the opening available is deemed suitable, several candidates are usually selected for interview with the employer. From this group the employer selects the student he deems best suited for the job. In this manner, a job opportunity and a deserving student are brought together for what has often proved to be a lifetime career.

## COOPERATIVE WORK-STUDY PROGRAMS

A cooperative work-study program may be defined as one which offers a continuing, supervised work experience in a specific industrial or business field while a student is enrolled in a high school academic program.

The actual functioning of the program may require that two students be assigned to one job station and alternate with one another either on a weekly or bi-weekly basis. Student "A" attends school one week while student "B" is at the job station. Student "B" attends school and student "A" is at work the second week. In a situation where an employer desires a worker every other week, one student may fit this category. Another work-study approach which has been used is to allow the student to be excused part of the school day to report to his job station.

Each prospective employer is told that the student should not replace a regular employee. Secondly, the student remains under the jurisdiction of the school department, even while under the care, control, and supervision of the employer. Finally, any and all

federal and state regulations concerning cooperative programs must be observed.

### BISC PROGRAMS

The function of BISC in relation to the various cooperative programs centers around two distinct areas. The coordinator must first secure job stations for the cooperative programs from business and industry. Secondly, BISC must recruit personnel to participate in these programs. This latter responsibility may be executed through teacher and/or guidance referral of students or through direct recruitment of students. The coordinator makes an evaluation of all referrals and places students in appropriate programs. The principal of the school concerned is then charged with the responsibility of administering the academic aspects of the program.

#### Academic Instruction in Cooperative Program

BISC was given the responsibility of establishing a new program of Distributive Education for the Warwick High Schools. Distributive Education is the term used for a cooperative work program in retailing.

The requisites in the Warwick area for such an endeavor entailed:

1. Scheduling the class
2. Adjusting the curriculum to suit the needs of the students
3. Providing a staff of qualified teachers
4. Selecting students (BISC)
5. Providing a related work station for the pupils involved in the program (BISC)

The nature of the D.E. program requires an alternating work week-school week format. Obviously, much curriculum adjustment was a prerequisite for institution of the program.

In order to better understand the nature of this class (D.E.) it may be well to provide an outline of the course content offered in academic areas.

ENGLISH: English standards for students enrolled in the Distributive Education Program are relatively rigid. Since these boys and girls are primarily interested in basic (or terminal) education in the academic areas, the standards are designed to accomplish this end. They must:

1. Prepare assignments (in reading and/or composition) daily and submit them on time.
2. Read outside of school four individually selected novels, biographies, autobiographies, or general non-fiction (all subject to teacher approval)
3. Review each outside reading assignment in a formally written paper
4. Learn and use ten "new" words each week
5. Drill and review on grammar and the mechanics of formal English
6. Conform to "reasonable" standards of good citizenship while in the classroom

The objective is: the ability to communicate - verbally and in writing - with those who will employ them in the fields of their choice. Through objective discernment of facts and ideas, usually in compositions, oral discussions, and individual readings, students improve their communicative skills to a degree that is acceptable to those who will open the doors to their futures in industry and the social order.

MATHEMATICS: \*Members of the Cooperative Work Program have a very definite and practical course of study in mathematics. Since participants are required to take one-half year of Review Mathematics, this course of study is

\*The name given to Warwick's program of distributive education.



basic and caters to the needs of persons involved in building trades, machine shop work, printing, service station management and similar work situations. Computational skills in the fundamentals are sharpened. The theory of whole numbers, fractions, and decimals is brought into focus through their use in solving problems. The abstract theory of algebra is stressed through solving linear equations. Finding squares and square roots is necessarily absorbed as a prelude to more sophisticated solutions involving the Pythagorean theorem. The basic trigonometric functions are of practical use in solving for angles and sides of a right triangle, requiring knowledge and use of sine, cosine and tangent as well as a use of the trigonometric tables. Some areas of modern math. involving sets and set notation are taught.

Areas and volumes as well as denominate numbers, and common units of measure are part of the course of study and must of necessity be covered if practicality is a consideration.

The members who participate in the Cooperative Work Program are asked at regular intervals if they have encountered any mathematical situations in the field

which could either be solved or discussed during class. This practice brings into the classroom a functional and practical use of the school to help meet certain needs of a work-a-day world.

In the above manner the school attempts to combine both a final comprehensive mathematics situation with a functional, practical math approach.

SOCIAL STUDIES: The course of study as outlined in the curriculum guide for regular classes is followed in the course called Problems of American Democracy (P.A.D.). The course begins with a unit on the Importance of Democracy. This study includes assigned readings in a regular text, outside reports, and class discussions. About one week is allowed (7 class meetings) for each unit.

After the unit on democracy, units on U.S. Foreign Policy, the United Nations, Clear Thinking and the News Media (Propaganda), Tolerance and Understanding, Consumer Economics, Social Security and a unit of work on the American Labor Movement are studied.

The purpose of presenting the selected material to this particular class is to prepare them at least fundamentally with a knowledge of various problems they may expect to encounter in daily life.

DISTRIBUTIVE EDUCATION: Course content borders on two distinct areas. Since this is primarily a class of trainees for service station management, the theoretical and practical aspects of the duties and responsibilities the student will assume are treated. Units such as: Selling of Motor Oils, Lubrication of Motor Vehicles, Principles of Ignition Systems, Service for the Customer, Salesmanship and Ethical Practices, Principles of Internal Combustion, and Study of Brake Systems present a cross section of the entire course content.

Such a course, with emphasis on theory and practice, should aid the student to develop aptitudes and attitudes that will enable him to meet and serve the public successfully.

ELECTIVE: The cooperative work student is entitled to one elective subject confined to the course offerings administratively available. Ideally the course elected should be suited to the subject matter area which the student is pursuing as his vocational choice.

#### The Sealol Training Program

This unique pilot project between the Warwick School System and the Sealol Manufacturing Company first came

into existence in January of 1962 at a meeting between Mr. Edward Underhill, vice-president of Sealol and Dr. Taylor, Mr. Casey, and Mr. Douglas of the Warwick School Department. It was noted that industry had a need for skilled machine operators, and that meeting their need was an acute problem. Possible solutions were the cooperative school-day program in which Sealol already participated along with a proposal variation of bringing the machines, tools, and training specialists to the school. It was felt that the latter plan was the most economically feasible and a series of meetings throughout the following year formulated the basic concepts of the program. Sealol Manufacturing Company would furnish a turret lathe and a universal grinder to be used by a select group of senior high school boys on a two hour extended-school-day basis. The company would supply a trained specialist to work in collaboration with the school personnel involved. Any special tools or measuring devices not common to the school shop would also be provided as needed.

It was stipulated that Sealol would be allowed the use of the school facilities to conduct a similar training

program to upgrade their own employees. Further use of the equipment would be gained through the Adult Education Program, and during the normal school day classes in Metals.

The advantages to the students of such a program were thought to be numerous. It would provide an opportunity for training in a specific industrial skill on a production-line basis which could lead to a position in the labor market where a definite need existed. It could also act as an incentive for sophomores or juniors interested in the machine tool industry to remain in school to take advantage of such a program. It could also provide college-preparatory students who were undecided about their career or who were unable to go to college immediately with an opportunity to explore this area as a basis for furthering their educational opportunities in industry. At this point in the discussions it was felt that a curriculum must be devised to encompass the time allotted and the skills involved.

This was done in a cooperative effort between the teaching personnel involved in the school system, the training specialist provided by Sealol, and the supervisory force at Sealol. After a number of

meetings these people produced a curriculum guide thought to be sufficient to meet the needs of the program. It was understood that this was to be a pilot program that would motivate other industries into joining the venture in their own specialities. It was also planned that there would be a transition period at the end of the first year after which the school system would no longer be dependent upon Sealol for the use of their training specialists, on a daily basis.

The selection of student personnel was the next major problem encountered. This portion of the program was to be handled by the Business-Industry-School coordinator. The first step was to visit all of the non-college guidance classes in the Spring of 1963 in both high schools to find out the number of boys genuinely interested in participating in such a program. It was found through this survey that ninety boys asked to be considered for the opportunity.

The following sequence of events then took place to bring the starting class size down to twenty boys.

I. From permanent record cards the following test scores were obtained:

- A. Differential aptitude Test (D.A.T.)
  - B. Otis Gamma I.Q.
  - C. Preliminary Scholastic Aptitude Test (P.S.A.T.)
  - D. Iowa Test of Educational Development (I.T.E.D.)
  - E. Kuder Preference Record
  - F. Attendance record for that school year
  - G. Grade point average
- II. Rating sheets on students obtained from guidance, science, and/or industrial arts
- III. BISC interview with students
- IV. BISC use of a numerical rating system for each area of consideration and then obtaining an overall numerical rating for each condidate
- V. Prospective group size cut to fifty students by elimination of the lower half of the interested group
- VI. Remaining students tested by Sealol using the following criteria and class ranked in order:
- A. Activity Vector Analysis (A.V.A.)
  - B. Verbal and numerical test
  - C. Wonderlic Intelligence Test
- VII. Two independent rating list compared cooperatively



and selection of thirty acceptable enrollees made.

VIII. These thirty students offered the opportunity to participate in the program, with twenty accepting and starting the following fall.

This procedure was also followed for the second class of students the following year.

The technical aspects of the program such as the acquiring of equipment and tools was handled by the Supervisor of Industrial Arts. The actual operation of the program was controlled by the teaching personnel of the Warwick School System and the training specialist from Sealol.

Midway through the first year a review of the program was held by all parties concerned. It was felt at this time that generally the program was running smoothly and according to schedule. By June all students who were interested in taking machine operator jobs were satisfactorily placed.

Research indicates that this development of a cooperative training program in the machine tool field is unique in that it represents a considerable economy in wages, elimination of machine production loss, and the

loss of time for skilled personnel. This type of endeavor could be one successful answer to the problem of training skilled help for industry and yet serving the interest of students by giving them an opportunity to determine specific interests and capabilities without economic loss to the employer.

#### Work-Experience Program for Retarded Children

A formal work-experience program for secondary school special classes was inaugurated because of the increasing number of mentally retarded pupils who left school unprepared for the world of work. Such pupils present problems specific to the field of special education. Background information as to the characteristics and limitations of these children is needed for a full appreciation of this particular program.

##### I. Definition of Educable Mentally Retarded

An educable mentally retarded child is any child whose rate of mental development, as measured by individual psychological examinations, has been retarded from birth or early age, but who requires and may expect to benefit from

special education facilities designed to make him economically useful and socially adjusted.

## II. Four General Objectives of Special Education

1. Self-realization
2. Social competence
3. Economic efficiency
4. Civic responsibility

## III. Characteristics of the Educable Mentally Retarded

1. Sensitivity to surroundings
2. Slow reaction time
3. Short attention span
4. Poor transfer of learning
5. Lack of initiative for planning
6. Limited imagination
7. Limited use of concepts
8. Limited vocabulary
9. Inability to evaluate efforts
10. Narrow range of interest

### The First Work-Experience Program for the Mentally Retarded

Before the institution of a work-experience program in the senior high school, there was a total of five classes for the educable mentally retarded in the **three** junior high schools. Pupils in these classes would invariably terminate

their schooling upon reaching the age of sixteen. Through the guidance departments this fact was brought to the attention of BISC who sought to alleviate the problem by organizing the first work-study program for the special classes in Warwick in 1961.

It was the job of BISC to secure the several work stations and to maintain a working relationship between employer and school. The implementation of this program kept students in school who might otherwise have dropped out at an age when they were not yet ready to fend for themselves in the demanding labor market. Two years later, in 1963, the first senior high school work-study class for educables was instituted at Pilgrim High School.

#### First Senior High Program

In September, 1963, the first senior high school class for educable mentally retarded pupils was opened at Pilgrim. These pupils came from all three junior high schools in the city. Initially there were twenty pupils scheduled for this class. At one time during the year, however, the enrollment increased to twenty-four. This program was considered experimental, and decisions concerning the curriculum were left to the teacher.

Keeping in mind that the purpose of the class was to prepare these pupils to meet the demands of the work-a-day world, several work stations were secured by BISC during the summer months. Along with a full year's preparation of subject matter, a work-study curriculum was prepared with the aid of BISC to be used during the month of September.

The classroom teacher of these exceptional children was assigned the task of job orientation while the function of BISC was to secure the several job stations and implement the work placement. These students were scheduled to work and attend class on an alternate week basis. BISC and the classroom teacher constantly evaluated the program through periodic visits to work stations and reading the employer report forms.

Through BISC the orientation period included several guest speakers and field trips. This service is maintained throughout the year, not only in relation to the occupational aspects of the program, but in subject matter areas as well.

## Objectives of Work-Experience Program for the Retarded

The preparation of youth for living and making a living perhaps should be an integral part of all secondary education. The preparation of mentally retarded youth for living and making a living is absolutely essential. The general purpose of this preparation is to provide students with realistic work experience under the guidance of the school so that the school curriculum can be related to the practical problems, both technical and social, they will face in everyday work situations.

The specific objectives of the Work-Experience Program are:

1. Development of group loyalties, a feeling of belonging to and identification with a group with a purpose
2. Development of a healthy attitude toward co-workers in the classroom and in the working world
3. Understanding of standards of work and conduct imposed by adults other than teachers
4. Appreciation of the needs of others and a willingness to be of service
5. Improvement in habit of personal cleanliness and dress
6. Improvement in attendance and punctuality
7. Awareness of the importance of tact and courtesy

8. Display of initiative in purposeful and wholesome pursuits
9. Development of poise and self-confidence not frequently seen among exceptional students of this age.

#### Criteria for Selection of Students

The students who have taken part in this program were selected by a number of school personnel from the three junior high schools in Warwick on the following basis:

1. Sixteen years of age or older
2. Physically able to participate in this type of program
3. Capable of benefiting educationally and socially
4. Parents approval of their participation
5. Expressed desire to participate..



## FIELD TRIPS AND GUEST SPEAKERS

The service rendered to the secondary schools by BISC in obtaining guest speakers and arranging field trips has accomplished a great deal in providing a better view of the work-a-day- world to the classroom. As the many classes from various departments schedule field trips or invite guest speakers into their school setting, their curriculum is enriched and no longer does the classroom operate in a vacuum.

Prior to 1957 the classroom teacher expended his own time in securing guest speakers and arranging field trips. When this service became a function of BISC, the secondary schools were provided with the assistance which enabled teachers to secure a greater variety of guest speakers and a more diversified selection of places to visit in the community.

The major function of BISC in this area is to arrange for visits by guest speakers, and to act as liaison between teachers and prospective places that they have indicated they would like to visit. At the beginning of each semester BISC informs each secondary school teacher that this service is available.

At the request of supervisors, department heads, or teachers BISC acts as a resource person by suggesting activities in this area. This service is readily available because of the fact that all pertinent information on guest speakers and field trips is recorded and filed for future reference.

Since the inception of BISC, department heads have come to recognize the need for these activities and have displayed some initiative by incorporating visits by guest speakers and class field trips into the curriculum on a regular basis.

Evaluation of these activities are made by teachers and department heads, and invariably reported to BISC. These evaluative reports are also recorded by BISC and serve as reference for future needs.

## RESEARCH ON NEW FEDERAL LEGISLATION

In September of 1964 it became evident that if the city of Warwick were to continue to take full advantage of federal legislation one school official should be made responsible for the investigation and evaluation of federal and state legislation pertaining to education. This duty was temporarily delegated to BISC.

The investigation and implementation of new federal programs is a continuing process, and it is anticipated that the Business-Industry-School Coordinator will provide special assistance in this increasingly important sphere of school activity.

The following pieces of federal legislation were researched both at the state level and in Washington and found to be applicable to Warwick:

### I. Vocational Education Act 1963

Under a state plan approved by the Federal Government funds may be allocated for any or all of the following purposes:

- A. Vocational education for high school students
- B. Vocational education for school dropouts or graduates who are available for training program
- C. Retraining program for those who have already entered the labor market

- D. Vocational education for handicapped persons
- E. Construction of area vocational education school facilities
- F. Ancillary services

The Smith Hughes amendments allow allocation of funds not used for agriculture to be re-allocated for the purposes of the Vocational Education Act.

The George-Barden amendments allow allocations of funds not used for home economics and trade and industries to be re-allocated for purposes of the Vocational Education Act.

## II. Economic Opportunity Act of 1964

In the present absence of a Community Action Program there are two main portions of this act that were found to be applicable to our school system: the Neighborhood Youth Corps of which the BISC was subsequently named Director, and Operation Head Start for which he formulated and negotiated a proposal to the federal government.

### A. Neighborhood Youth Corps

Under Title I.B of the Economic Opportunity

Act, 1964, a local sponsor who must be a public agency or a private non-profit agency may jointly sponsor, with the Federal Government a "work experience" program for "needy" persons aged 16--21. During the current school year the City of Warwick with close cooperation from the school system sponsored the first such youth corps for a twenty week period and enrolled 311 "in-school" participants. Generally, the female enrollees worked as clerical aides in the various business departments of the school system and the city government, while the male enrollees were engaged in maintenance tasks in the same areas.

The purpose of this program is to develop a proper attitude toward work rather than skill training. Hence an individual completing the program might then be eligible for training in a specific skill under such recent federal legislation as the M.D.T.A.\* or A.R.A.\*\*

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\* M.D.T.A. - Manpower Development Training Act

\*\* A.R.A. - Area Redevelopment Act

These young people are paid at the rate of \$1.25 for their labors with funds provided on a 90% federal-10% local basis. Thus, approximately \$100,000 was dispersed into the local economy during the twenty-week period of the first N.Y.C.\*\*\*

A second Youth Corps program of ten weeks duration is presently operating during the summer vacation period and proposal for a third Youth Corps program covering the school year 1965-66 is planned. The BISC function in these programs has been one of coordination. This duty necessarily involved the formulation of the original proposals which were submitted to the federal authorities for negotiation, and contracting also the responsibility for the detailed operation of the program.

B. "Operation Head Start" was set up by the federal government to help children residing in economically depressed areas reach a mental, social, physical, and emotional development equal to that of children from more privileged backgrounds.

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\*\*\*N.Y.C. - Neighborhood Youth Corps

### III. National Defense Education Act - 1964

The amended N.D.E.A. provides for the continuation and funding of existing programs. It also allows for the expansion of the Act to include history, geography, reading, English and civics. Both the old and new programs were made to include the elementary level. The BISC function here was to contact appropriate state education officials with a view to obtaining appropriate amended guide lines to be followed by the school system applying for Federal reimbursement.

A. Title VIII was written to help meet the space-age demand for highly skilled technicians. It provides for the allocation of funds not used under Title VIII of the N.D.E.A. to be re-allocated for the purposes of the Vocational Education Act.

### IV. Elementary and Secondary Education Act of 1965

A. Title I - Provides for the formulation of programs directed to the improvement of education for educationally deprived youngsters.



- B. Title II - Provides for the expansion of library services in the elementary and secondary school level.
- C. Title III - Provides for special services for public and private secondary school children on a shared time basis.
- D. Title IV - Provides grants to strengthen State Departments of Education.

The BISC duties in this area are presently evolving and await the development of appropriate administrative procedure by state officials.

#### V. Manpower Development and Training Act

The purpose of the M.D.T.A. is to provide retraining programs to develop the labor resources of this country, to reduce the displacement problems caused by automation, and to reduce unemployment generally in the 17-21 age group through various technical training programs.

#### VI. Area Redevelopment Act

This act was passed to alleviate unemployment in chronic labor surplus areas and to establish a special program for retraining of unemployed workers in depressed areas. The BISC act in

these areas has involved the recruitment of thirty interested high school graduates who have been enrolled in two machine operator training programs conducted at Veterans Memorial High School within the past two years.

The following pieces of Federal legislation were also researched but were not found to be applicable to the Warwick School System:

1. Mental Retardation Act
2. Higher Education Facilities Act
3. Library Services Act
4. Health Professions Act.

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