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ABSTRACT

Completed studies of the Research Coordinating Unit established at Rhode Island College include: "An Evaluation of Rhode Island's Teaching-Training Programs in Vocational Education" and "A Survey of Special Needs Students in Rhode Island" (presented in the appendix). In progress is "Vocational-Technical Institute Development Program for Commercial Fisheries." A newsletter has been distributed to 600 educators periodically. The Unit has induced the Rhode Island College library to purchase "Office of Education" and "Research in Education" microfiche while the Unit has purchased the "Abstracts of Research and Related Materials in Vocational and Technical Education" and "Abstracts of Instructional Materials in Vocational and Technical Education" microfiche collections. The Unit director participated in the New England Regional Research Coordinating Unit conference and in the development of a regional research proposal, and wrote the research section of the State Plan. In addition to an account of activities and accomplishments, the document presents an historical perspective, a statement of objectives, and a sample newsletter. (JK)

FINAL REPORT

Project No. 6-2776

Grant No. OEG 1-6-062776-2142

ESTABLISHMENT OF AN OCCUPATIONAL RESEARCH AND DEVELOPMENT COORDINATING UNIT FOR THE STATE OF RHODE ISLAND

Reporting Period of June, 1966 to August, 1969

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education

Bureau of Research

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ESTABLISHMENT OF AN OCCUPATIONAL RESEARCH AND DEVELOPMENT COORDINATING UNIT FOR THE STATE OF RHODE ISLAND

Dr. Robert D. Cloward
Director

Research Coordinating Unit
Rhode Island College
Providence, Rhode Island

September, 1969

The research reported herein was performed pursuant to a grant with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

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INTRODUCTION

The primary objective of this report is to describe the major activities and accomplishments of the Research Coordinating Unit for the state of Rhode Island. The Unit was established in June, 1966 under the provisions of Section 4 (c) of the Vocational Education Act of 1963. It was not activated, however, until December of that year, when Mr. Charles W. Hailes was appointed as the full-time director of the Unit. Since no federal funds had been encumbered between June and December, permission was given to amend the original grant by extending the ending date to December 31, 1969. In keeping with the transition to State Plan funding mandated in the Vocational Education Amendments of 1968, the ending date for the Unit was subsequently changed to August 31, 1969.

Some of the information contained in the present report is rather impressionistic. During the summer of 1968, a complete turnover in the Unit's staff occurred. Having had only one year's experience with the Unit, the present writer has had to rely on the written records of the Unit and on interviews with individuals who had some knowledge of the Unit's activities prior to September 1, 1968.

HISTORICAL PERSPECTIVE

The Research Coordinating Unit for the State of Rhode Island was established at Rhode Island College in June of 1966. The reasons for its being housed at the College rather than at the State Department of Education are not a matter of record. Apparently, officials in the State Department of Education felt that there was a need for a Research Coordinating unit in the State, space was not available in the Department offices to house the Unit. Since the College had a more flexible salary schedule and better access to research resources, the College was asked to apply for and administer a grant to establish the Unit at the College. While it is clear from the grant application that the Unit was to serve the vocational research needs of the State as a whole, no specific provisions were included that would permit the Unit to contribute directly to the goals or instructional program of the College. Thus, the Unit was in one sense the offspring of the State Department of Education and in the same sense the step-child of the College.

In the spring of 1967, an Advisory Council was formed to provide community based support for the Research Coordinating Unit's development. The Council was asked to formulate a set of objectives for the Unit and to establish a list of priority areas for vocational research. The Council generated a broad statement of goals, but no guidelines were established for implementing the goals or evaluating the unit's progress toward them. While priority areas of research were discussed, no priority list was established. The Council has not been convened since June of that year.

The Unit began making contacts in the State. Some of the early Progress Reports are replete with statements of the meetings held, the individuals consulted, and lists of the persons who asked the Unit's help in developing proposals. While it is difficult to assess the impact of all this activity on vocational education in the State, it seems likely that many officials came to believe that vocational research could provide some answers to their problems and became positively oriented toward participation in research activities.

The Unit was not notably successful in getting proposals funded. In many instances time was spent with individuals who did not have the research skills necessary for carrying out a proposal. Often it was hard to find an educational institution that would serve as grantee for a proposal. In a few cases time was spent on proposals that were only vaguely associated with vocational education problems.

This "encouraging and coordinating" strategy became increasingly less viable in the federal budgetary drought. Shortly after the writer was appointed Director of the Unit, it became apparent that there would be no new federal money available to support research irrespective of the relative merits of submitted proposals.

Since September of 1968, substantial progress has been made in developing a good working relationship with the State Division of Vocational and Technical Education. With the change in leadership, the Unit began to respond to the Division's need for planning and decision-making information.

At the request of the Division, the Unit undertook a study of special needs students and vocational education opportunities for them in the State. The report of this study published in August, 1969, is being seen as a significant contribution to vocational education in the State, and may have implications for other states as well. The developing cooperative relationship has been further evidenced by the Division's request for help in writing the State Plan for Vocational Education. All of the Unit's contributions to the research section of the State Plan were accepted and written into the final document.

Since September 1, 1969, the Research Coordinating Unit has operated under State Plan funding. The Unit will be situated in the State Department of Education offices and will become an intregal part of the research and planning operations of the Division of Vocational and Technical Education.

MAJOR ACCOMPLISHMENTS

1. Completed Studies

An Evaluation of Rhode Island's Teacher-Training Programs in Vocational Education - Mr. Richard Prull, Principal Investigator.

A descriptive survey of institutions awarding baccalaureate credit in vocational teacher education utilizing interview and questionnaire data obtained from the instructional staff and the graduates of the programs. The study was conducted by the RCU staff with funds available in the RCU grant. Report published in September, 1968.

A Survey of Special Needs Students in Rhode Island - Dr. Robert D. Cloward, Principal Investigator.

A descriptive survey of ninth grade students in Providence and Woonsocket, R. I. This study attempted to explore ways of operationally defining special need students, determined the number of special needs students who were currently interested in vocational training, and described the characteristics of vocational training programs that would be needed for these special students. The study was conducted by the RCU staff with available funds in the RCU grant. The Report of findings was published in August, 1969.

2. Research in Progress

A Vocational-Technical Institute Development Program for Commercial Fisheries - Dr. John Sainsbury, Principal Investigator. Project Number 6-2166, Grant Number OEG 1-6-062166-1994.

3. Research Proposals That Were Not Funded

The Utilization of Occupational Drawings in Enhancing Vocational Development - Charles W. Hailes, Principal Investigator.

HEW Consumer Education Survey - Dr. Roy G. Poulsen, Principal Investigator.

The Development and Evaluation of Experimental and Control Models for Teaching Distributive Education - Mr. Bruce L. Summa, Principal Investigator.

Developing a Model Program in Health Occupations for the Disadvantaged - Miss Marianne E. Lacava, Principal Investigator.

DISSEMINATION ACTIVITIES

The main tool for dissemination of information and research findings was the Research Coordinating Unit Newsletter. Published on a periodic basis, the Newsletter contained information on the research activities of the Unit, announcements about the availability of research monies and procedures for developing and submitting proposals, editorials focused on the development of desirable attitudes toward research, and articles in which the findings of important national vocational research studies were reviewed. The Newsletter was mailed to six-hundred educators and other individuals concerned with vocational education in the State. In addition, the final reports from the two completed studies were widely distributed to educators in the State and copies were sent to the RCU directors in other states.

The Research Coordinating Unit fostered the development of the Research In Education microfishe collection at Rhode Island College. For two years all microfishe were ordered through the Unit on an individual basis. When the microfishe collections became available through The National Cash Register Company, the Unit induced the College Library to purchase the Office of Education and Research in Education microfishe collections and make them available to educators through out the State. To supplement the main collection, the Unit purchased the Abstracts of Research and Related Materials in Vocational and Technical Education and the Abstracts of Instructional Materials in Vocational and Technical Education microfishe collections.

OTHER ACTIVITIES

The Director of the Research Coordinating Unit actively participated in the planning and development of a regional research proposal that has recently been submitted to the Bureau of Research for federal funding. He has participated in the New England Regional RCU Conferences, The National Conferences of RCU Directors, the American Vocational Association conferences, and the American Educational Research Association conferences.

At the request of the State Director of Vocational and Technical Education, the RCU Director wrote the research section to the State Plan for Vocational Education. This document will serve as a guide for the future development of the Unit as an integral part of the research establishment in the State Department of Education.

STAFF SUMMARY

NAME AND POSITION	FUNDS FEDERAL	FUNDS LOCAL	PERIOD EMPLOYED	PERCENT OF TIME
Mr. Charles W. Hailes Director	X	X	12/26/66- 8/31/68	100
Dr. Robert D. Cloward Director	X	X	9/1968- 8/31/69	100
Dr. Philip S. Very Associate Director	X	X	1/1967-- 6/30/68	50
Mr. Richard Prull Research Associate	X		2/1/68- 8/31/68	100
Mr. Heinz Grotzke Research Associate	X		10/1/68- 8/31/69	75
Miss Geraldine Boscalia Secretary	X		1/1/67- 8/31/68	100
Mrs. Elizabeth Potter Secretary	X	X	9/30/68- 7/30/69	85

CERTIFICATION

Mr. Ernest L. Overbey
Vice President, Treasurer, and
Administrative Grants Officer
Rhode Island College

Robert D. Cloward, Ed.D.
Director
Research Coordinating Unit
Rhode Island College

APPENDIX A

RESEARCH COORDINATING UNIT
FOR THE STATE OF RHODE ISLAND

Objectives:

It shall be the function of the Occupational Research and Development Coordinating Unit for the State of Rhode Island to:

1. Stimulate research of a vocational and technical nature within the Junior Colleges, Colleges and Universities throughout the State of Rhode Island.

2. Stimulate Vocational and Technical research within the school districts throughout the State of Rhode Island.

3. Assist the Rhode Island Department of Education, Vocational and Technical Division, to study,evaluate, and develop a complete program of prevocational, vocational and technical education.

4. Coordinate all research and development activities within the State of Rhode Island of a Vocational and Technical Education nature and sanctioned by or funded through the United States Office of Education.

5. Provide aid and assistance in the preparation of research proposals, help in procedures and selection of sources for funding research proposals.

6. Provide research and development information services for occupational and preoccupational education for all agencies within the State of Rhode Island regarding:

    a. Curriculum
    b. Methods
    c. Philosophy
    d. Economics
    e. Consulting services

7. Maintain files of research significant to Prevocational, Vocational and Technical Education as sponsored by the RCU throughout the United States

8. Identify problems which need particular attention to progressively improve Vocational and Technical Education throughout Rhode Island.

June 8, 1967

APPENDIX B

RESEARCH COORDINATING UNIT

NEWSLETTER

RHODE ISLAND COLLEGE, PROVIDENCE, R.I., 02908

January, 1969

MICROFICHE COLLECTIONS AVAILABLE NOW

The last newsletter reported on the plans to have a complete ERIC installation. The microfiche cards of the various collections have arrived and are available at the Rhode Island College Library or the RCU headquarters which also has its offices in the library.

The collections Research in Education (1956-1967) and Research Reports (1956-1967) are available in the reference room of the library which also houses two readers and one reader/printer either one needed to read the microfiche cards. The reference librarian, Mr. Joseph Buffardi, will be present Monday through Friday from 9:00 a.m. to 5:00 p.m. to explain the use of the instruments and assist people in locating the documents desired. Someone who is familiar with the reading instruments has access to the microfiche collection also during the evening library hours.

The RCU headquarters on level D of the library has available now the microfiche collections listed in Abstracts of Instructional Materials in Vocational and Technical Education (1967 to present) and Abstracts of Research and Related Materials in Vocational and Technical Education (1967 to present). We also have a reader and facilities to study the material of these collections so valuable for the follow-up of activities in vocational education. The offices will be open Monday through Friday from 9:00 a.m. to 4:30 p.m., during which hours our staff will be pleased to introduce the visitors to reader and collections.

Within the near future the library plans to have available the microfiche collections of Documents on the Disadvantaged, Documents in Higher Education, and Pacesetters in Innovation.

LET'S ASK RESEARCH

Do vocational education graduates really use the training they receive in school? How effective is this training? Should training be conducted in a comprehensive high school or separate vocational high school? Is the often used phrase "dumping ground" applicable to present vocational education?

Some answers to these questions have been presented by Dr. Jacob J. Kaufman* in a study of vocational education programs in nine representative communities in the North Eastern sector of the United States. The study appraised courses in agriculture, distributive education, home economics, office occupations, technical education, and trade and industrial education. Here are some of the major findings:

1. Vocational graduates versus academic graduates. Follow-up interviews showed that graduates of the vocational curriculum obtained more manufacturing jobs, while graduates of the academic and general curricula obtained more white collar, primarily clerical jobs. Although vocational graduates, both male and female, were much more likely to have been placed by their school than graduates of the other curricula, the extent of school participation was generally quite low. It might be contended that without the appeal of the vocational curriculum many students might never have completed high school.

2. Community size. In the small communities better communications existed and resulted in an understanding of the goals of vocational education across all levels of administration. Consequently, these communities were judged to have the best overall vocational curriculum both in quality and in the proportion of students enrolled.

The medium sized communities had sympathetic administrations which provided good facilities and adequate materials. Despite this support, the programs offered were frequently narrowly conceived and students were not attracted in sufficient numbers to fill all available work stations.

The strength of the vocational offerings in the large cities lay in their greater breadth and in their potential to meet the needs of all students. In these cities, however, the goals of vocational education were found to have had the least influence on total educational policy, and, in proportion to enrollment, the vocational expenditures were lowest.

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*Jacob J. Kaufman and others, The Role of the Secondary Schools in the Preparation of Youth For Employment, University Park: Institute for Research on Human Resources, Pennsylvania State University, 1967.

3. Guidance. When considered in light of needs, it is the vocational student who needs guidance the most. Data from the study, however, revealed that the vocational students were the least likely to have discussed either their course choices or their occupational plans with a guidance counselor. The primary reason for the inadequate counseling was the high, unrealistic student-counselor ratio. Many other specific weaknesses of guidance programs were noted in the evaluation. These referred to such things as inadequate physical facilities, lack of counselor-employer contact, incomplete pupil records, etc. By any criterion, guidance, as currently carried on, was one of the major weaknesses found in this study of vocational education.

4. Comprehensive or separate vocational high school. There was no evidence that graduates of separate vocational schools were better prepared or more successful in their first jobs. Neither was there any evidence that comprehensive schools were leading to a greater acceptance among students from different curricula. On the contrary, male vocational graduates from comprehensive schools were much more likely to report they felt "looked down on" because of the courses they took.

The case, therefore, was not made for either school. In a negative sense, though, the evidence was more favorable to the separate school. While it did not appear that graduates of the separate schools were better trained, they at least did not perceive attitudes of condescension in their school.

5. Image. The implications of the "image problem" phrase are that while vocational education is commonly seen as a second-class education, it is in reality as successful as any other type. Still, vocational education is considered by many as in some way "inferior", and the term "dumping ground" is often heard.

The academic teachers from comprehensive high schools ranked lowest in support of vocational education. They agreed with the idea of vocational education, but were skeptical of the effectiveness of its actual operation. They believed more "basic" education was necessary and thought vocational students had inferior ability.

The evaluation team detected similar attitudes among employers, labor officials, and other community representatives. Many employers thought they could give better training themselves. Union officials were reluctant to give credit for training received in the school programs.

The weaknesses cited most frequently in the evaluation of all the vocational programs were their inadequate use of advisory committees, though they would appear to be a natural way of solving the problem of limited contact between the school and community. The responsibility is, of course, with school officials to stimulate increased participation.

6. Minorities. The following findings are based on interviews with Negro graduates. Negroes from each of the three curricula tended to react to their school experiences in much the same way as Whites from the same curricula. The Negro male who graduated from a vocational curriculum showed up as relatively "better off" than the Negro graduates of the other curricula.

Conclusion

With respect to the North Eastern states the results of the program evaluation present a picture of sins of omission rather than sins of commission. What the schools were doing, they were doing adequately. Most prominent among the omissions was the failure to develop programs for those students who would not profit from present offerings. Other significant weaknesses were the poor guidance programs and the insufficient use of advisory committees.

APPENDIX C

A SURVEY OF SPECIAL NEEDS STUDENTS IN RHODE ISLAND

Robert D. Cloward, Ed.D.
Heinz Grotzke

Research Coordinating Unit for
the State of Rhode Island
Rhode Island College
Providence, R.I.

August, 1969

ACKNOWLEDGEMENTS

This survey of ninth-grade special needs students was undertaken by the Research Coordinating Unit for the State of Rhode Island at the suggestion of Mr. Thomas H. Sandham, Jr., Associate Commissioner and State Director of Vocational and Technical Education. In publishing our results we should like to acknowledge our appreciation to Mr. Louis I. Kramer, Acting Superintendent of Schools in Providence, and Mr. Edward J. Condon, Superintendent of Schools in Woonsocket, for their courteous cooperation in the conduct of the study.

We are indebted as well to the principals, guidance counselors, and teachers of the participating schools without whose cooperation the study could not have been completed.

August 8, 1969

Heinz Grotzke
Robert D. Cloward

Introduction

The Vocational Education Ammendments of 1968 place increased emphasis on the creation of vocational training opportunities for students with so-called special needs. The legislation mandates that between fifteen and twenty-five per cent of the funds provided under the act must be used for the vocational training of special needs students who are defined in the ammendments as "persons (other than handicapped persons. . .) who have academic, socioeconomic or other handicaps that prevent them from succeeding in the regular vocational education program."

The present study is addressed to the following questions:

1. What are the characteristics that distinguish special needs students from regular vocational students and students in other academic curricula?

2. How many special needs students are in the State of Rhode Island and how many of them are currently interested in obtaining vocational training?

3. What vocational education programs will be needed in the future for training special needs students? How should they be structured? What special services should be included? How might existing programs be modified to better serve the special needs population?

The Definitional Problem

A crucial issue in the present study was the development of an operational definition for "special needs". In order to get familiarized with the approach of other states, a short questionnaire was sent to the Research Coordinating Units in 46 of the 50 states. The following question headed the list:

> "How are special needs students operationally defined in your State, i.e. what specific criteria are used in classifying individuals as special needs students?"

Of the 23 states that responded, seven reported that they had no definition. Six states used as a definition the words in the legislation - students "who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education program." Two states responded by using the terms "physically, mentally, or emotionally handicapped", while one state termed special needs as "culturally disadvantaged and students with reading disabilities." The remaining seven states gave definitions that focused on students with low academic achievement, students with low intelligence, but not mentally retarded, students who were deficient in reading, mathematics, or other communication skills, and students who were culturally or economically disadvantaged. While in a few cases intelligence score and reading achievement ranges were mentioned, specific criteria were not set forth in such a way that special needs students could be accurately identified.

The terms "socio-economic" and "academic handicaps" as employed in the legislation are too vague to serve as criteria in an operational definition. What degree of social, economic, or educational handicap must exist to reach the judgment that the student "cannot succeed in regular vocational education programs?" Should all black students be classified as special needs students? Many black students do succeed in regular vocational education programs and do quite well in college preparatory curricula and go on to college. While minority group and social class status may be helpful, they are not always accurate indicators of special needs.

The use of educational handicap criteria presents similar problems. How far below grade level must a student perform in

reading or mathematics before he is classified as handicapped? Will all students so classified be predestined to failure in regular vocational programs? Obviously not! Some students succeed in spite of these handicaps, although they might do even better in their vocational field if it were not for these academic deficiencies. It is equally true that some students of low intellectual ability manage to avoid failure, and some low motivated students succeed in spite of their lack of persistence.

In short, none of these criteria correlates perfectly with a lack of success in school. What does correlate is previous failure in academic subjects. Students who have not been successful in their school work are not likely to suddenly become successful when introduced to vocational subjects. No matter what the reason for previous failure, whether caused by low motivation, reading disability, cultural handicap, low ability or some other reason, the fact of failure in itself is the best indicator of special need. Some support for this view has been gained through an informal survey of area vocational school principals and guidance counselors in the State of Rhode Island. Regardless of the level of the student's vocational interest and aptitude, vocational school officials seem generally reluctant to admit students to their programs who are now failing or who show a history of failure in academic subjects.

Procedure

For the purposes of the present study special needs students were defined as students who have failed one or more subjects in the 8th or 9th grade or who have repeated the grade. The definitional issues have been examined by cross tabulating these low achieving students in terms of the following categories:

1. Low ability - intelligence quotient between one and two standard deviations below the mean (I.Q. between 70 and 85).*

2. Socio-economically handicapped - minority group membership or family in poverty.

3. Educationally handicapped - standardized test performance in reading or mathematics more than one standard deviation below the grade level mean.

4. Motivationally handicapped - score more than one standard deviation below the mean on a questionnaire concerned with academic motivation.

5. Behavioral Problems - students who present disciplinary or social-emotional problems.

The sample for the study consisted of all the ninth grade students in the public schools of Providence and Woonsocket. Providence was selected not only because it is the largest city in the state, but also because of its sizable black population. Woonsocket was selected as one of the larger cities in the state with a population of economically disadvantaged whites and culturally handicapped, French-speaking people of Canadian extraction. Regrettably, time and staff limitations did not permit survey of other areas of the state.

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*Students with I.Q.s below 70 were not included in the study.

In each of the communities, the academic and test records of ninth grade students were screened to identify students who met the criteria for inclusion in one or more of the above categories. Teachers and guidance counselors were asked to identify (1) students who were culturally or economically handicapped; (2) students who represented behavioral (disciplinary) problems, and (3) students with social-emotional (non-disciplinary) problems.

In each school the Occupational Form of the Personal Values Inventory (Schlesser & Finger) was administered to the ninth grade students. This 68 item questionnaire included items from the Persistence, School Values, Youth Culture, and Planning Values scales of the original Personal Values Inventory, six falsification items, and a few items concerned with the student's educational plans and vocational aspirations. Some validating data have been presented on the use of the PVI to identify high-motivation students (Schlesser & Finger, 1963, Finger, 1966, and Finger and Silverman, 1966). The ability of the instrument to identify low-motivation students is not well established. In the present study, the Persistence, School Values, Youth Culture, and Planning Values scales were summed to yield a total score for academic motivation. Students with total scores lower than one standard deviation below the mean for the population surveyed were presumed to be low-motivation students.

Generalization beyond our samples is hampered not only by the geographic location of our samples, but also by biases introduced through our data collection procedures. Some of the bias concerns completeness and the recency of data used to identify low ability and low skill students. Students for whom no results were avail-

able were assumed to be of normal intelligence and to have satisfactory reading and mathematics achievement test scores. Not only are low achievers more likely to be absent than high achievers at times when achievement tests are given, but also achievement and ability test results used were those given in the sixth grade in Woonsocket as compared with those given in the ninth grade in Providence. Since the variance in achievement tends to increase in later grades, the data to be presented for Woonsocket probably under represents the number of students in Woonsocket who are achieving a standard deviation or more below grade level in reading and mathematics.

Findings

The cross tabulations by special needs definition for Providence and Woonsocket are presented in Table 1. Of the 1,910 ninth grade students in Providence, 502 or 26 percent have failed one or more subjects in the last two years or have repeated a grade. Twenty-four percent of the students with failures were classified as socio-economically handicapped. Twenty percent are students with intelligence scores between 70 and 85. More than half of them (57 percent) have deficiencies in reading and/or mathematics. Sixteen percent have low motivation scores and eleven percent show evidence of disciplinary or social-emotional problems.

The inadequacy of the other possible definitions of special needs students is amply illustrated in the data. For example, had a socio-economic definition been used as the only criterion, half of the special needs population would include students who are

TABLE 1
DISTRIBUTION OF FAILING AND NON-FAILING
9TH GRADE STUDENTS BY SPECIAL NEEDS
DEFINITIONAL CRITERIA

Special Needs Criterion	PROVIDENCE					WOONSOCKET				
	Students with Failures		Non Failures		Total	Students with Failures		Non Failures		Total
	N	%	N	%	N	N	%	N	%	N
Total	502	(100)	1403	(100)	1910	51	(100)	480	(100)	531
Socio-economic Handicap										
Black Students	81		124		205	1		7		8
Portugese	5		41		46	0		5		5
French Canadian	-		-		-	4		22		26
Other Poor	33		40		73	1		1		2
Subtotal	119	(24)	205	(15)	324	6	(12)	35	(7)	41
Educational Handicap										
Reading	95		174		269	0		9		9
Mathematics	55		46		101	1		0		1
Both Reading & Math	135		107		242	0		1		1
Subtotal	285	(57)	321	(23)	612	1	(2)	10	(2)	11
Low Ability	101	(20)	139	(10)	240	0	(0)	12	(2)	12
Low Motivation	81	(16)	128	(9)	209	6	(12)	34	(7)	40
Behavioral Handicap										
Disciplinary Problem	30		24		54	17		22		39
Social-emotional	27		34		61	3		8		11
Subtotal	57	(11)	58	(2)	115	20	(39)	30	(6)	50

not failing in their school work. An educational handicap criterion would have yielded a total of 612 students with deficiencies in reading and mathematics, but less than half of them show unsatisfactory progress in school. Similar weaknesses would occur with the singular use of the other criteria.

Only ten percent of the ninth-grade students in Woonsocket have failed a subject or repeated a grade, a rate that is substantially lower than that in Providence. Whether this represents a real difference in student performance or only a difference in grading policies is not known. The two communities do differ in their disadvantaged populations. Two-thirds of the disadvantaged in Woonsocket are of French-Canadian extraction, while two-thirds of the disadvantaged in Providence are black students.

Woonsocket shows much lower rates for academically handicapped and low ability students. As mentioned earlier, these figures were based on intelligence and achievement tests administered at the sixth-grade level. Had ninth-grade test data been available , substantially higher rates might have occurred.

Tabulations of failing and non-failing students by curriculum are presented in Table 2. These data were obtained by having the student encode his curriculum on his Personal Values Inventory answer sheet. Regrettably, the instructions for recording curricula were not followed in some of the classrooms in Providence, with the result that the curriculum for thirty percent of the Providence students could not be identified. Since the failure to indicate curriculum seemed to be randomly distributed over classrooms, the percentages in the Table probably are representative of the whole ninth grade.

TABLE 2
CURRENT CURRICULA OF FAILING
AND NON-FAILING STUDENTS

	PROVIDENCE					WOONSOCKET				
Curriculum	Students with Failures N	%	Non Failures N	%	Total N	Students with Failures N	%	Non Failures N	%	Total N
Vocational	4	(1)	21	(2)	25	-	-	-	-	-
Business	35	(11)	148	(14)	183	9	(18)	106	(22)	115
General	138	(45)	305	(30)	443	34	(70)	180	(38)	214
College Prep.	133	(43)	551	(54)	684	6	(12)	188	(40)	194
Subtotals	310	(100)	1025	(100)	1335	49	(100)	474	(100)	523
Curriculum Not Known	192		383		575	2		6		8
TOTALS	502		1408		1910	51		480		531

In Providence, 45 percent of the failing students are in the general curriculum and 43 percent are in the college preparatory curriculum. In Woonsocket, 70 percent of the students with failures are in the general curriculum.

The data on student educational aspirations were collected through a series of items on the Personal Values Inventory and are presented in Table 3. As had been anticipated, a high proportion (25 percent) of the failing students in Providence were not tested because of absence. Of those that were tested, more than half unrealistically plan to follow college preparatory or general courses in high school. If past performance is an accurate indicator, the 30 percent who plan to take college preparatory courses are not likely to succeed and probably will end up in the general curriculum. Only 38 percent of the low achieving students in Providence and 50 percent in Woonsocket indicate an interest in vocational, technical, or commercial subjects. If the data in Table 3 are accurate reflections of student plans, there is a serious need for vocational and occupational guidance services in the public schools of Providence and Woonsocket.

Implications for Vocational Education

While the nature of our sample precludes generalization to a state-wide population, it is clear that Providence alone has over 500 students who, because of their lack of progress in junior high school, may legitimately be classified as students with special needs. More than half of these students have serious learning

TABLE 3
EDUCATIONAL PLANS OF FAILING AND NON-FAILING STUDENTS

Educational Plans	PROVIDENCE					WOONSOCKET				
	Students with Failures		Non Failures		Total	Students with Failures		Non Failures		Total
	N	%	N	%	N	N	%	N	%	N
Probably Dropout	34	(9)	45	(4)	79	10	(21)	24	(5)	34
Vocational	74	(20)	199	(16)	273	15	(31)	97	(20)	112
Technical (Jr. College)	10	(3)	38	(3)	48	1	(2)	11	(2)	12
Business & Commercial	55	(15)	188	(15)	243	8	(17)	80	(17)	88
General H.S. Diploma	85	(23)	184	(15)	269	12	(25)	95	(20)	107
College	114	(30)	585	(47)	699	2	(4)	167	(35)	169
Subtotals	372	(100)	1239	(100)	1611	48	(100)	474	(100)	522
Questionnaire Invalid	3		12		15	0		4		4
Not Tested	127		157		284	3		2		5
TOTALS	502		1408		1910	51		480		531

disabilities in the basic academic skills. Their learning modality tends to be more aural than visual. They assiduously avoid situations in which communication is by the written word for fear that their reading and mathematic disabilities will be exposed to public ridicule.

Twenty-five percent of these students are culturally or economically handicapped. Twenty percent are students of low intelligence, but not mentally handicapped. Having limited vocabularies and limited access to verbal mediators, they do not form the verbal associations necessary for efficient cognitive learning. They are slow to grasp concepts, have difficulty handling abstractions and prefer to deal with the practical and the concrete.

These are students whose lack of success in school has dulled their interest in learning. Under motivated, expecting failure, bored with school, many of these students become serious disciplinary problems. They are, indeed, the hardest to reach and the hardest to teach.

Exiling them to the vocational shop and giving them a little counseling and remedial reading on the side is not likely to be a productive approach to the problem. Nor should we focus on short-term job skill training with view toward getting the student out of school and out of our hair at the earliest possible date. If these special needs students are to be successfully reached and taught, far more in the way of professional resources must be brought to bear on the problem than has been the case to date. They need the best teachers and the most competent experts in remedial education. Their teachers need ready access to specialists in the diagnosis of learning disabilities, instructional specialists,

media specialists, and vocational task analysis experts. The students need ready access to guidance counselors, social workers, placement specialists, and other supportive staff.

Our recommendation for a model vocational education is one in which a student would go through four stages:

1. The diagnostic stage - The student admitted to the special needs vocational program would undergo an in-depth evaluation that might last a month or more. The evaluative procedures would include psychological testing for interest, aptitude, and personality, and educational testing for learning disability and placement. The student would be given exploratory experiences in all the vocational shops in the school. At work stations established in each shop, the student would be given the opportunity to perform simple tasks that have been designed to test his interest and aptitude for learning in that area. The data obtained through these evaluative experiences would be used as a basis for determining the level of entry and the vocational curriculum that seems best suited to his needs.

2. The training stage - The student would be given training in the vocational skills that have been identified as suited to the students' needs, interests, and aptitudes. Through task analysis, the vocational skills to be taught would be broken into small, definable tasks, designed and sequenced so as to optimize success at each step. Early tasks must be designed in such a way that failure to successfully complete them becomes virtually impossible. While later tasks might present more challenge to the student, the guiding principle should remain "the student can no longer afford failure."

3. The remedial stage - We do not recommend the immediate introduction of remedial education experiences. These experiences would focus on reading and mathematics activities, the very subjects in which special needs students do least well. It is our feeling that before the student is given remedial training, he needs to gain confidence in his own ability to learn and to recognize his own need for remedial assistance. However, the judicious introduction of reading and mathematical tasks in the shop experiences may help to prepare the student for later formal training in reading and shop mathematics.

4. The re-entry stage - For some students this stage would be structured as a sheltured work shop experience that simulates the conditions of holding a job in the world of work, preparing the student for placement in an actual job. For other students this stage might involve advanced training in technical skills. For a few students who have demonstrated their interest and aptitude, this stage might involve a re-entry into the regular academic curriculum.

We would further recommend that the special needs vocational program be structured as a series of experiments, rather than a set of institutionalized practices. Continuing emphasis must be placed on research and evaluation to discover more productive techniques and procedures and to eliminate practices and programs that are not effective.

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APPENDIX

Occupational Research Coordinating Unit

GENERAL DIRECTIONS

We are asking you to participate in a study of 9th grade students in the State by answering a few questions about yourself and your plans for the future. This is not a test, for there are no right or wrong answers. You are simply to answer each question as honestly as you can. None of your answers will in any way be used against you.

You are to make all your responses on a separate answer sheet provided with this Inventory. Use a lead pencil. (Don't use a ball point pen or a felt marking pen.) Make your marks heavy and black completely filling the space between the dotted lines beside the letter that is the same as the response you have selected. If you change your mind about a response, be sure to completely erase the old response before marking your new choice.

Now look at your answer sheet. In the spaces provided at the top of your answer sheet on the left side, print your last name one letter in each block. If your last name has more than ten letters in it, use only the FIRST ten letters. Then print your first name in the boxes on the right, one letter to a box.

Now graph your name using the alphabets provided in the middle of the answer sheet. Do this by marking under each box the letter that matches the letter you put in that box.

Answer the questions that appear in the middle of the answer sheet. Then, turn this page, and read the directions for Question 1. While there is no time limit, you should work as quickly as you can.

PERSONAL VALUES INVENTORY
(Occupational Form)

DIRECTIONS:

For questions 1 - 8 mark the space on your answer sheet either a, b, c, d, or e to indicate what your marks in school have been so far this year. The 'a' means you have an 'A' average in the subject. The 'b' means you have a 'B' average in the subject, and so on. The 'e' means you have a failing average in the subject. If you are not studying one of these subjects leave it blank.

NOTE: The numbers on the answer sheet run from left to right! Use the 'e' response to indicate an 'F' grade.)

1. What was your mark in English? A, B, C, D, or F?
2. What was your mark in social studies? A, B, C, D, or F?
3. What was your mark in arithmetic or mathematics? A, B, C, D, or F?
4. What was your mark in science? A, B, C, D, or F?

Now you are to tell about your marks last year. If you did not study one of these subjects leave the answer sheet blank. (Use the 'e' response to indicate an 'F' grade.)

5. What was your mark in English last year? A, B, C, D, or F?
6. What was your mark in history or social studies last year? A, B, C, D, or F?
7. What was your mark in arithmetic last year? A, B, C, D, or F?
8. What was your mark in science last year? A, B, C, D, or F?

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Mark the questions 9 - 14 either a, b, c, or d on your answer sheet to describe your future plans, using the following key.

a = I am sure I will
b = I am almost sure I will
c = I am not likely to
d = I am sure I will not

9. Will you quit high school before graduation?
10. Will you take vocational or commercial subjects in high school?
11. Will you go to a four-year college?
12. Will you go to work when you finish high school?
13. Will you go into military service after high school?
14. Will you get some training after high school but not attend a four-year college?

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15. How much education do your parents or guardians want you to have? Mark your answer sheet either a, b, c, d, or e.

    a = They don't care whether I finish high school
    b = High school only
    c = Vocational or technical training after high school
    d = Business school or junior college
    e = A college degree

16. What kind of subjects would you most like to take in high school? (Mark only one.) Mark your answer sheet either a, b, c, d, or e.

    a = Subjects that would prepare me for a job in business
    b = Vocational subjects that would prepare me for a trade
    c = Subjects that would prepare me for advanced training as a technician
    d = General academic subjects for a diploma
    e = College preparatory subjects.

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The next questions ask about how your parents feel toward you and your school work. Mark 'a' to mean <u>yes</u> and 'b' to mean <u>no</u>.

17. Do your parents tend to believe that succeeding in school is the main road to your amounting to something in the future?

18. Have they tended to believe you do not work hard enough in school?

19. Have they said that you are not serious enough?

20. Do they compare you unfavorably with other students?

21. Has the influence of your home been such that the total effect is to lead you to be a hard worker in school?

22. Have your parents thought of you as more interested in fun and good times rather than in work?

23. Do your parents think of you as a serious student?

24. Do they think that you showed little interest in school?

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The rest of the questions ask about how you feel toward some things you might do. Answer 'a' to mean yes and 'b' to mean no.

25. Do you tend to give up quickly when things go wrong?

26. Do you think of yourself as one who achieves more than the average student?

27. Have you ever gossiped or told anything harmful about another person?

28. Do you feel guilty when you break a rule?

29. Would you enjoy the thrill of going fast in a car?

30. Do you prefer not to take chances?

31. Does it seem useless to make plans because they never work out?

32. Do you feel it doesn't make sense to worry about the future?

33. Do you feel that school is a waste of time?

34. Do you have more trouble studying than your friends?

35. Do others think of you as one who spends too much time reading and studying?

36. Do you think of yourself as a harder worker than most of your classmates?

37. Do you seem to have more trouble concentrating on difficult tasks than most students?

38. Do you like to appear as one who isn't afraid to take risks?

39. Do you believe you would be more successful if people would not pick on you?

40. Does the school expect too much of you?

41. Do you think you will ever use the knowledge and skill you are now learning in school?

42. Have you sometimes skipped school?

43. Do you have reason to believe that some of your teachers think of you as a hard worker even though not necessarily one of the smartest?

44. Do you put off your school work until the last minute?

45. Does your mind frequently wander off when you are trying to study?

46. Did you ever break or lose things which belonged to someone else?

47. Do you think it fun to take chances?

48. Does planning for the future take all the fun out of life?

49. Does school just not interest you?

50. Did you ever think that you would enjoy "getting even" with someone for something he had done?

51. Are you scared with fast drivers?

52. Do young people get more education than they need?

53. Do you believe that you get poorer marks than you deserve?

54. Do you only go to school because you have to?

55. Do your teachers tend to believe that you do not do as much as you could?

56. Do you enjoy accepting a dare?

57. Do your friends think of you as one who likes to take chances?

58. Do you study and work more than most of your classmates?

59. Have you ever disobeyed any law or school rule?

60. Is most of what you have to study useless?

61. Do you regard yourself as a harder worker than most of the students in your class?

62. Do the teachers give you sometimes poor marks because they don't like you?

63. Do you lose interest in your school work?

64. Do you often put off doing your school work?

65. Do you sometimes feel as though a class will never end?

66. Have you ever said unkind things about another person?

67. Do you get discouraged when you think of how much longer you have to go to school?

68. Do you like to plan your activities in advance?