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ABSTRACT

This survey analyzed the attitudes and educational and occupational patterns of 1969 high school graduates from vocational programs. Over half of a stratified random sample of nearly 3,000 graduates responded to the questionnaire after four followups. Summary data were grouped into five categories: (1) geographic distribution, (2) general information, (3) employment patterns, (4) attitudes assessed by semantic differential, and (5) interview information. Findings that most graduates did not enter a job area in which they were trained indicate that flexible vocational education is more appropriate than specific training. Shortcomings were disclosed in guidance, followup, and, to some extent, placement. (JS)

Research Coordinating Unit

EMPLOYMENT STATUS AND ATTITUDES OF SECONDARY SCHOOL OCCUPATIONAL EDUCATION GRADUATES IN NEW YORK STATE

Educational Research and Development Complex
State University College at Buffalo
Buffalo, New York

in cooperation with

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I. INTRODUCTION

Rapid technological advances and the demand for skilled manpower have focused national attention on the effectiveness of occupational education training. Traditionally such programs have attempted to educate youth in the skills required by the national industrial complex.

Another crucial problem confronts occupational educators. In the 1970's, vocational training at the high school level will become increasingly more significant, particularly for those individuals who do not complete collegiate programs. During this decade, the economy will be faced with the challenge of absorbing the greatest number of prospective workers in its history. The difficulty of balancing employment, productivity, and inflation has been most evident in 1970 and promises to be a continuous problem in the future.

Educators tend to ignore change and to retain and even expand programs which have become outmoded. Since they seldom anticipate societal needs, curricular modifications lag behind industrial and cultural needs, often changing only under pressure.

Occupational education programs have been least successful in providing the urban culturally disadvantaged with the occupational skills which would enable them to compete in a technological society. Martin Deutsch (1964), for example, estimated that 40 to 70 percent of the students in the 20 largest American cities are disadvantaged. He stressed that the Nation must provide these children with the skills required by the job market. Certainly occupational education provides an effective means of bringing the socially alienated into the mainstream of society. When the urban poor, particularly those from the black community, are not given access to jobs, they fall increasingly further behind those from the more affluent

segment of society.

The study examined major aspects of these problems and determined the degree to which urban and rural youth, who complete occupational education programs, were able to achieve initial employment in their field of preparation. In addition, the authors attempted to develop a systematic method of collection information considered pertinent in planning occupational education programs.

II. PURPOSE OF THE STUDY

The purpose of the study was to analyze the educational and occupational patterns of June 1969 high school graduates, from occupational education programs in Standard Metropolitan Statistical Areas (SMSA) and in Outside Standard Metropolitan Statistical Areas (OSMSA). The study also included an analysis of student attitudes toward work and toward academic and vocational courses in high school. In addition, the study was designed to develop a sampling model which possibly could be used by the New York State Education Department for subsequent followups of occupational education graduates.

III. DEFINITIONS

For the purpose of the study, the following terms were defined:

Culturally Disadvantaged
All students, at the time of graduation or in the last 2 years have resided in a foster home or in a home receiving Aid to Dependent Children (ADC), Public Assistance, or Welfare Payments, were classified as culturally disadvantaged.

Occupational Education
"The term, 'Vocational Education (Occupational Education)' means vocational or technical training or retraining which is given in schools or classes (including field or laboratory work and remedial or

related academic and technical instruction incident thereto) under public supervision and control or under contract with a State Board or local educational agency and is conducted as part of a program designed to prepare individuals for gainful employment as semiskilled or skilled workers or technicians or subprofessionals in recognized occupations and in new and emerging occupations or to prepare individuals for enrollment in advanced technical education programs, but excluding any program to prepare individuals for employment in occupations which the Commissioner determines, and specifies by regulation, to be generally considered professional or which requires a baccalaureate or higher degree; and such term includes vocational guidance and counseling (individually or through group instruction) in connection with such training or for the purpose of facilitating occupational choices; instruction related to the occupation or occupations for which the students are in training or instruction necessary for which to benefit from such training including job placement.

It includes programs now in existence as well as new courses or programs, so that persons of all ages in all communities of the State -- those in high school, those who have completed or discontinued their formal education and are preparing to enter the labor market, those who have already entered the labor market, those who have already entered the labor market, but need to upgrade their skills or learn new ones, which with special educational handicaps, and those in post-secondary schools -- will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training." (Public Law 90-576)

Occupational Curricular Programs

The seven occupational curricular programs in New York State consist of agriculture, distributive, health, home economics, office, technical, and trade and industrial areas.

Standard Metropolitan Statistical Area (SMSA)

A county or group of contiguous counties which contains at least one central city of 50,000 inhabitants or more or twin cities with a combined population of at least 50,000. The following 10 cities and 26 counties were identified as SMSA in the New York State Statistical Yearbook of 1967.

Cities	Counties
Albany, Schenectady, Troy:	Albany, Rensselaer, Saratoga, and Schenectady
Binghamton:	Broome and Tioga
Buffalo:	Erie and Niagara
New York:	Nassau, Rockland, Suffolk, Westchester, New York counties.
Rochester:	Monroe, Livingston, Orleans, and Wayne
Syracuse:	Madison, Onondaga, and Oswego
Utica-Rome:	Herkimer and Oneida

Outside-Standard Metropolitan Statistical Area (OSMSA)
Thirty-six counties in rural areas of New York are included in the study as OSMSA. The counties represent approximately 13 percent of the State's population.

IV. RELATED RESEARCH

Numerous secondary school districts have conducted followup studies of their graduates. Specific graduates from occupational education programs (OEP) were usually included in their findings. However, information pertaining to graduates from OEP was often combined with data on the general population, which makes it difficult to identify specific information relevant to OEP. In addition, the reports were typically poor in quality. Few large scale followup studies of occupational education graduates have been developed and completed in the last 10 years. Eninger (1968) surveyed the post-high school employment experiences of 3,122 vocational and 2,205 comprehensive school graduates from occupational programs which were selected from 100 high schools in 38 states. The study indicated that:

1. Vocational graduates enjoy substantially greater employment security than do comprehensive school course graduates without college education.

2. For the combined vocational graduates of 1953, 1958, and 1962, only 48 percent of these who went directly to work held their first full-time job in the occupation studied or a highly related occupation. The percentages for the 1953, 1958, and 1962 class years were 50, 45, and 48 percent respectively. Eleven, six and two years after graduation, the study found 30, 33, and 38 percent respectively in the fields for which trained.

3. Vocational graduates get their first full-time job after graduation more quickly than academic graduates.

4. Vocational graduates have greater accumulated earnings over the 11-year period covered by the survey than do academic course graduates with no college education.

5. Only 15 percent of the vocational graduates went to college.

6. In comparing graduates from vocational and comprehensive schools, the vocational schools significantly out-performed the comprehensive schools on 13 variables such as subject, grade averages, job placement, and trade and industry related employment experiences. However, only 16 of 105 variables yielded correlation coefficients that were significant at the .01 level of confidence.

7. Approximately 42 percent of the graduates of vocational programs reported having had some type of formal post-high school education.

8. Negro graduates required longer to obtain this first job, received lower wages initially, had lower employment security, scored lower on job satisfaction, and were less likely to be employed in the trade in which they were trained than white graduates. Fewer than 17 percent of the Negro graduates were able to get their first full-time job in the trade which trained.

Another study of OEP was completed by Kaufman (1967). In this study 5,181 graduates in nine communities in Ohio, New Jersey, and Pennsylvania were surveyed. The study analyzed the image and the adequacy of vocational education. Selected results of the study were:

1. The percentage of trade and industrial graduates who obtained jobs directly related to their training was reported to be less than one-third.

2. Male Negroes profited relatively more from vocational education than did white graduates.

3. Academic teachers in comprehensive high schools did not express a favorable attitude toward the value of vocational education.

4. Employers expressed a consistent lack of support for vocational education.

5. Vocational guidance programs were judged to be inadequate.

6. Vocational graduates when compared with the graduates of general and academic curriculums, reported few differences in terms of earnings, job tenure, reasons for leaving jobs, and job satisfaction.

7. When graduates from comprehensive and separate vocational high schools were compared, there was no evidence that graduates of separate vocational schools were better prepared or more successful in their first jobs.

In each of the large scale studies, the researchers were confronted with a variety of variables such as race, economic status, employer attitudes, and teacher attitude. Many of these same variables were analyzed in this study.

School districts in the State of New York such as Buffalo and New York City have conducted followup studies of their occupational graduates; unfortunately, the studies were not definitive in nature. Pautler (1967) surveyed 300 subjects from selected secondary schools in Erie County, New York. Three groups of students who were graduated or who should have graduated in June 1964 were studied. The three groups were:

1. Vocational graduates.

2. Control group graduates (June 1964, high school graduates who did not take vocational education or who did not go on to higher education).

3. Students who started in the vocational programs who should have finished in June 1964, but who, for some reason, dropped out.

Selected findings from Pautler's study were as follows:

1. There is a significant difference among vocational graduates, vocational dropouts, and control group graduates in the type of employment they are engaged in 20 months after leaving school.

2. There is no significant difference among the vocational graduates, vocational dropouts, and the control group graduates in their present yearly salary 20 months after leaving school.

3. There is no significant difference among vocational graduates, vocational dropouts, and control group graduates in the number of employer changes made since leaving high school.

V. METHODOLOGY

The study employed a two-stage sample. Initially, a stratified random sample of New York secondary schools, classified by size, was selected for the study. Schools were also stratified into SMSA and OSMSA categories. From lists of June 1969, graduates, provided by administrators from 128 secondary schools, a stratified random sample of 2,960 graduates was selected with occupational curriculum as blocking variable. To insure a sample adequate for statistical inference, a continous randomized subsampling procedure was utilized for each of the seven curriculum areas. This procedure involved repeated random sampling of subjects (S's) in each job category until cells (ranging from six cells for "Office" to 29 cells for "Trade and Industry" were large enough for inference. Due to differences in the numbers of cells in each category, cells for some categories were more readily filled than others, precluding the necessity for further overall random sampling for some categories.

A questionnaire was developed, field tested, and sent to each of the selected S's. At the conclusion of four followups, 1,574 (53.2 percent) of the graduates returned a completed questionnaire. In table I, the geographic

distribution of 1,574 respondents in New York State is presented. In addition to the questionnaire data, 121 interviews were conducted using both a structured and open-ended interview format.

VI. ANALYSIS OF OBJECTIVES

The specific objectives of the study were analyzed in the following manner:

Chi-Square Analysis

A chi-square analysis was used to determine the significance of differences in terms of the five blocking variables for the following objectives:

1. Compare the current employment of each graduate with the specific high school occupational curriculum in which he was previously enrolled.
2. Compare the specific occupational area the graduate was trained for in high school with the job in which he aspires to be employed in the future.
3. Determine who influenced the graduates in choosing their occupational program.
4. Analyze the reasons why graduates did not pursue their secondary school occupational training program in their current employment.
5. Identify the occupation in which the graduates were currently employed.
6. Determine the number of occupational changes by graduates since June 1969.
7. Identify the number of graduates who are currently unemployed, in college, or in the military service.

8. Determine the weekly salary of those graduates who are employed.

9. Identify how the graduates obtained their employment.

One-Way Analysis of Variance (ANOVA)

A one-way ANOVA was used to analyze attitudinal data gathered by a semantic differential for the following objectives:

1. Analyze specific attitudes of graduates towards their current occupations and/or towards the concept of work.
2. Identify attitudes of graduates towards their high school occupational program.
3. Identify attitudes of graduates toward their academic courses such as English or science.

VII. BLOCKING VARIABLES

Data were compared on the basis of five blocking variables. The variables were as follows:

1. Type of Community: Districts were compared on the basis of two classifications: Standard Metropolitan Statistical Area (SMSA) and Outside Standard Metropolitan Statistical Area (OSMSA).
2. Sex: Graduates were classified by sex so that comparisons could be made.
3. Race/Ethnic Group: Graduates were classified and compared into four major groups including Caucasian, Negro, Puerto Rican, and other.
4. Welfare Payments: Graduates were classified by respondents whose parents had received welfare payments in the last 2 years and those graduates whose parents had not received

welfare payments.

5. Specific Curriculum: Graduates were classified by: major field of study, including a) agriculture, b) distributive, c) health, d) home economics, e) office, f) technical, and e) trade and industrial.

VIII. SUMMARY OF FINDINGS

The summary data were grouped by the following categories:

1. Geographic distribution of graduates
2. General information
3. Employment patterns
4. Attitudes assessed by semantic differential
5. Interview information

The information is based on responses to the questionnaire which is presented in the appendix.

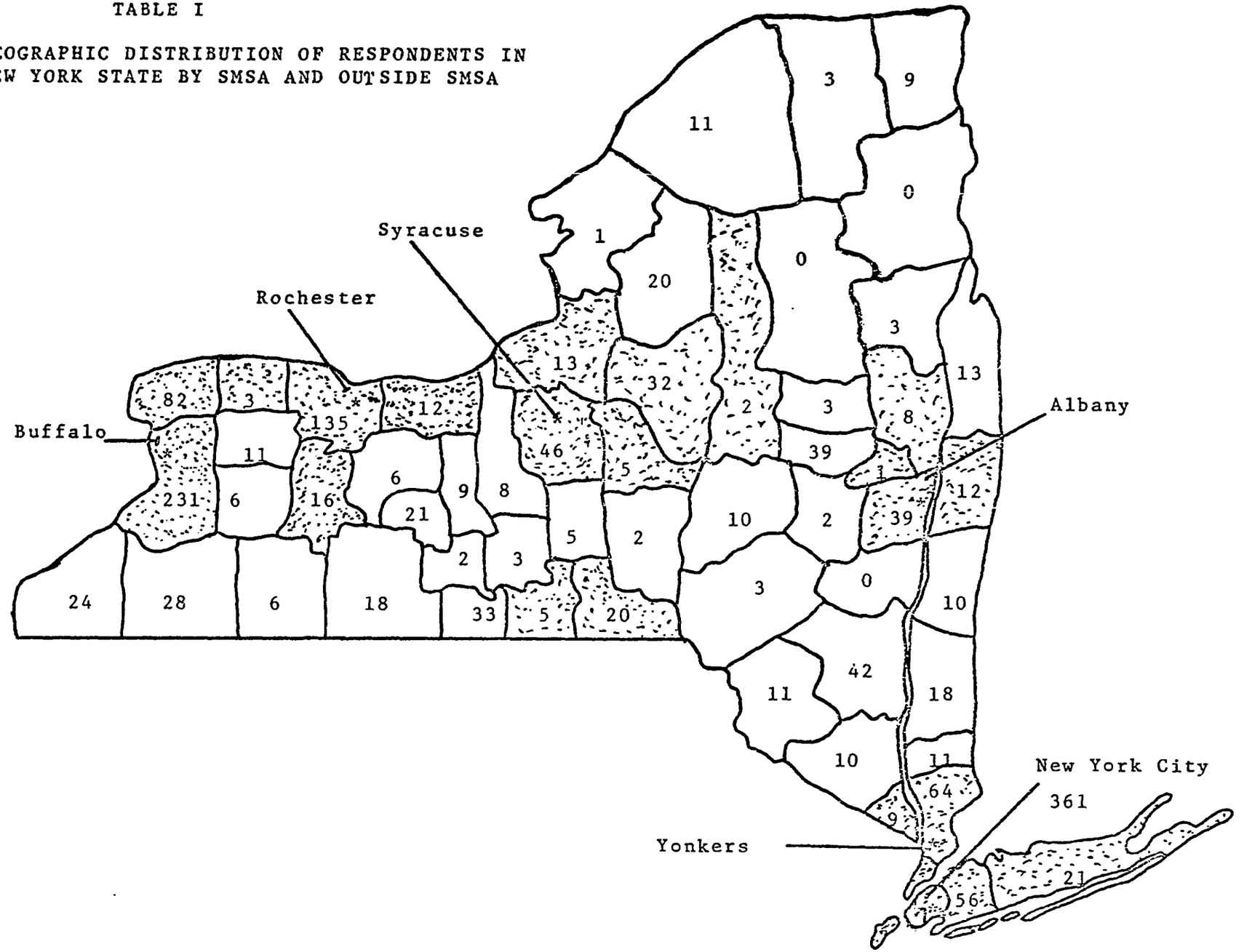
Geographic Distribution of Graduates

In table I the geographic distribution of the graduates in New York State is presented in terms of SMSA and OSMSA. The shaded areas on the map represent the 26 counties classified as SMSA. The "Big Six Cities" including New York City, Yonkers, Buffalo, Rochester, Syracuse, and Albany, are identified as SMSA. Each of the SMSA counties had one or more occupational education graduates participate in the study. A total of 1,168 (74.2 percent) of the 1,574 respondents were located in the SMSA. The number of responses ranged from 361 responses in New York City counties to one response in the county of Tioga.

Only three OSMSA counties, Essex, Hamilton, and Greene, were not included in the study because the secondary schools in these counties did not identify any graduates from occupational education programs. Four

TABLE I

GEOGRAPHIC DISTRIBUTION OF RESPONDENTS IN NEW YORK STATE BY SMSA AND OUTSIDE SMSA



hundred and six (25.8 percent) of the 1,574 graduates were from OSMSA.

General Information

1. Of the 1,574 respondents, 669 (43.1 percent) stated that they were enrolled in either a full-time or part-time post-secondary school program.
2. Two hundred and five (30.8 percent) of the 669 graduates enrolled in either a full-time or part-time post-secondary school program, were employed in a full-time job.
3. When graduates were asked whether their parents received welfare payments, 25.8 percent of the Negro respondents replied affirmatively while only 5 percent of the Caucasian respondents indicated their parents had received aid. Of the 1,524 who responded to the question, only 130 (8.6 percent) indicated their parents had received welfare payments in the last 2 years.
4. Only 5.3 percent of the male graduates were married while 15.7 percent of the female respondents were married.
5. Of those graduates who had not enrolled in a post-secondary school program, 30.5 percent planned to continue their education.
6. Thirty-two (24.6 percent) of the 130 graduates whose parents had received welfare payments indicated that their guidance counselor influenced them most in selecting their major program in high school. Three hundred and four (21.9 percent) of the 1,389 graduates whose parents had not received welfare payments also indicated that the guidance counselor influenced them most in selecting their major

program in high school. However, 62.6 percent of all graduates indicated that they selected their own high school program.

7. When male and female full-time employed graduates were questioned about the degree of help the occupational training program provided on the job, 166 (39.3 percent) of the 422 male graduates indicated that the high school training program was a great deal of help on the job. Two hundred and sixteen (51.7 percent) of the 418 female graduates indicated that the high school training program was a great deal of help on the job.
8. When full-time employed graduates were asked what type of assistance they received in seeking employment, 222 (52.1 percent) of the male respondents and 206 (48.9 percent) of the female respondents stated that they had obtained their employment through their own effort as compared with 12.4 percent of male and female graduates receiving help from parents, 10.1 percent from friends, 9.8 percent from guidance counselors.
9. In comparing graduates with the type of program the respondent would recommend to a student entering high school, 41.9 percent of the males and 46.9 percent of the female graduates recommended a vocational or occupational program as compared with 11.3 percent recommending a general program and 36.4 percent recommending college preparatory.

10. When male and female full-time employed graduates were asked whether they liked or disliked their current job, 79.8 percent of the males and 87.2 percent of the females reported liking their job. In terms of race or ethnic group, 76.4 percent of the Negro respondents and 84.6 percent of the Caucasian graduates liked their job.

11. When full-time employed respondents by race of ethnic group were compared with expected change in place of employment in the next 2 years, 49.5 percent of the Negro graduates and 36.6 percent of the Caucasian graduates indicated that they planned to change their place of employmemt.

12. In table II, the five blocking variables are analyzed in terms of the significance of selected attitude and guidance information. A definite response pattern evolved with a majority of the blocking variables of SMSA/OSMSA, sex, and occupational curriculum area being significant at either the .05 or .01 level of confidence. Only in one case was the variable of race and/or ethnic group significant at the .05 level. No significant differences were observed in terms of graduates whose parents had or had not received welfare payments.

Employment Patterns

1. When male and female full-time employed respondents were compared with training received in high school

and with current employment by same, related, or different occupational areas, 138 (32.4 percent) of the 426 male graduates were employed in the same job area. Two hundred and twenty-eight (53.5 percent) of the 426 female graduates were employed in the same job area as trained for in high school. Two hundred and twenty-six (53.1 percent) of the male graduates were employed in different job areas while 128 (30 percent) of the female graduates were employed in different occupational areas. Fifty-six (13.1 percent) of the male graduates were employed in related areas, while 69 (16.2 percent) of the females were in a related job area.

When race or ethnic groups were compared with employment aspirations, 594 (37.9 percent) indicated they planned to obtain employment in the same job area for which they were trained in high school.

3. Sixty-seven (7.8 percent) of the male graduates were unemployed, while 95 (13.4 percent) of the females were unemployed.
4. When full-time employed respondents were asked the major reason why they were not working in the field which they were trained for in high school, 111 (23.6 percent) of the 470 stated that no jobs were available in their area of training. Ninety-four (20 percent) stated that they did not like the job, while 88 (18.7 percent) were not working in the same job area because they had obtained a better paying job in another area.

TABLE II

ANALYSIS OF EACH BLOCKING VARIABLE COMPARED WITH ATTITUDE AND GUIDANCE INFORMATION

ATTITUDE AND GUIDANCE INFORMATION		BLOCKING VARIABLES				
		SMSA & OSMSA	SEX	RACE/ETHNIC GROUP	WELFARE PAYMENTS	CURRICULUM AREA
1. Graduates enrolled in post-secondary educational programs.	χ^2	15.328**	77.421**	3.956	1.292	144.437**
	df	1	1	3	1	6
2. Major influence in choosing their major program in high school	χ^2	30.117**	22.562**	20.799	9.019	98.368**
	df	5	5	15	5	30
3. Degree of help high school training was on job	χ^2	12.055**	22.650**	9.039	2.062	127.865**
	df	3	3	9	3	18
4. Positive attitude toward current job	χ^2	.782	8.310**	6.517	2.269	18.191**
	df	1	1	3	1	6
5. Attitude toward change in place of employment during next 2 years.	χ^2	2.138	14.182**	13.597*	3.697	32.316**
	df	2	2	6	2	12

* Significant at .05 Level of Confidence
** Significant at .01 Level of Confidence

5. The mean full-time weekly salary before deductions for the graduates, whether their parents had or had not received welfare payments, was the same. Both were located in the $86-$100 a week range.
6. Of the 853 employed on a full-time basis, 389 (45.8 percent) have made two or more employment changes since graduating from high school.
7. In table III, a definite response pattern is represented in terms of significant differences at the .01 level of confidence for each of the five blocking variables compared with employment information objectives. When race and/or ethnic group were compared with each blocking variable, there were no significant differences among Negroes, Puerto Ricans, and Caucasians. There were also no significant differences among graduates whose parents had received welfare payments and graduates whose parents did not receive welfare payments.

Attitudes Assessed by Semantic Differential

Attitudes were assessed by a semantic differential analysis, with three concepts and five bipolar adjectives. Comparisons were made across groups according to the blocking variables. The graduates responded very favorably to all three concepts. However, "Feeling toward Work" received the most positive ratings. "High School Vocational Training" was second, and "Academic Courses" received the least positive ratings.

The general response of graduates to "Feeling toward Work" was similar across the blocking variables. However, SMSA graduates felt work was somewhat less useful, meaningful, and interesting than OSMSA graduates. There

were significant differences among the curriculum areas regarding the importance, usefulness, meaningfulness, and interest generated by work. Agriculture graduates perceived work as more important and useful than the others. Technical graduates saw work as somewhat less important, and distribution graduates as somewhat less useful. Health graduates perceived work as most meaningful and interesting, distribution graduates less meaningful, and technical graduates less interesting.

In response to "Academic Courses," there were no differences among curriculum areas or welfare/nonwelfare graduates, but overall and specific scale differences existed for sex, SMSA and OSMSA, and race. SMSA graduates perceived "Academic Courses" as more interesting than OSMSA students. Male graduates felt that "Academic Courses" were less important, less useful, and less practical than female graduates. Race differences were significant for each scale. Black graduates rated "Academic Courses" more positively than the others. White graduates provided the least positive ratings on four of the scales.

Occupational training yielded few specific scale differences among the groups. However, across all scales there were race, curriculum, and SMSA/OSMSA differences. Thus it appears that there were small differences among the groups in their attitude toward occupational training, which were not great enough to show up on individual scales. SMSA graduates perceived occupational training as less meaningful and less interesting than OSMSA graduates. Distribution graduates felt it was least meaningful and least interesting, while health graduates felt it was most meaningful and interesting.

Thus the attitude of occupational graduates toward their educational experience in occupational and academic courses is very positive and their

TABLE III

ANALYSIS OF EACH BLOCKING VARIABLE COMPARED WITH EMPLOYMENT INFORMATION

EMPLOYMENT INFORMATION		BLOCKING VARIABLES				
		SMSA & OSMSA	SEX	RACE/ETHNIC GROUP	WELFARE PAYMENTS	CURRICULUM AREA
1. Current job compared with training in high school	χ^2	20.389**	54.185**	9.938	1.476	160.198**
	df	3	3	9	3	18
2. Job aspirations compared with training in high school	χ^2	4.831	17.077**	16.937*	3.241	144.415**
	df	3	3	9	3	18
3. Major reason graduates were not working in job trained for in high school	χ^2	8.397	11.540*	15.654	3.650	62.109**
	df	5	5	12	5	30
4. Occupational status by employed, unemployed, etc.	χ^2	50.310**	168.546**	17.005	15.549	314.743**
	df	6	6	18	6	36
5. Weekly salary before deductions	χ^2	39.493**	134.729**	33.138	3.276	146.042**
	df	6	6	18	6	36

* Significant at .05 Level of Confidence
** Significant at .01 Level of Confidence

attitude toward work is even more positive. Although there are group differences when the blocking variables are considered, these differences are not great. The most meaningful differences appear to be in the areas of residence, curriculum, and race. There were no differences in attitude by welfare/nonwelfare recipients and the only sex difference was in the perception of "Academic Courses."

Interview Information

Approximately 10 percent of the total sample of 2,960 was randomly selected to form an interview sample from whom descriptive information was obtained. A total of 294 graduates, or 42 S's from each of the seven major curriculum areas, formed the group. Each S was contacted by letter to establish an appointment for the interview. From this group, 121 graduates (41.4 percent) volunteered to participate. Twenty-nine (9.9 percent) were in the armed services and were not available. Twelve (4.1 percent) reported that they had moved from New York State. Thirty-two (10.9 percent) indicated that they would be willing to complete a questionnaire, but not to be interviewed. Ten (3.4 percent) reported that they were not willing to be interviewed or complete a questionnaire. A number of letters, 29 (9.9 percent), were returned by the post office stamped as "unknown addresses." Sixty-three (21.4 percent) did not respond to the letter and could not be reached through telephone followups.

The authors recognized the inferential limitations of the interview as a research tool. However, it was felt that the information gained through the interview would validate data gathered with the questionnaire. In addition, the interviewers were instructed to probe the motivations, attitudes, and aspirations of the respondents. A schedule was developed to structure a portion of the interview. A "funneling" technique was used in the open-ended

segment of the interview. This technique starts with open, general questions and continues with more specific, closed questions. This sequencing enables the interviewers to gain the interest and confidence of the S's through nonthreatening, general questions before specific and probing questions were asked. (Connell and Kahn, 1968). The information presented in this section should be examined with an awareness of the validity problems inherent in the interview, as well as the limitations involved in the size of the sample and the percentage of respondents who volunteered to participate in the interviews.

Six individuals conducted the interviews with the occupational education graduates. The interviewers were briefed to obtain more reliable information from the interviews. Each subject was contacted by mail to solicit his cooperation, and individual arrangements were made by telephone. Interviews were held in several locations, depending on the availability of facilities. Most frequently, local school buildings were used. In other cases interviews were conducted in the graduates' homes. When other arrangements could not be made, interviews were conducted by telephone.

The interviews solicited information in several major categories. The following information summarizes the data obtained in the interviews for three selected questions.

1. Why did you choose an occupation or vocational curriculum?

The majority of the graduates stated that they made their own choice of an occupational education program. Graduates also indicated that friends influenced them in their choice of an occupational education major. One graduate said, "A friend of mine liked it, told me about it, so I tried it." Another observed, "I didn't care too much, but my best friend was going into electrical work, so I did too." In a number of other cases, parents, and less frequently, teachers, provided the major stimulation.

The majority of the graduates stated that they made their own choice of a vocational education major. One student observed, "In junior high school I took graphic shop and I liked it, so I took printing in high school." A young lady noted, "I always wanted to be a secretary and taught myself typing in grammar school and always was interested in becoming a secretary." Another female subject offered a similar, if somewhat vague motivation, when she stated, "I always wanted to be a nurse. This was a good chance to try it. I liked it and decided to continue it in school."

Certain subjects exhibited resentment toward what they viewed as excessive interference by adults in their choice of a vocation. Guidance counselors, particularly those in urban schools, were frequently and strongly criticized. "My father forced me to become a secretary," one girl commented. "I really wanted to go to college and teach, but I guess it's too late for that now." One printer's apprentice said that his father was a printer "so I majored in printing." Another, whose father was a farmer said, "My father and I talked about going into agriculture, so I thought I would go into conservation." Another graduate said, "I liked my industrial arts teacher and took woodworking. Someday I may want to teach woodworking, but I'm not sure." "My guidance counselor forced me into it. I never thought it (auto mechanics) was very good or interesting." In this case it should be noted that the graduate did not even seek a job in his area of training, but had taken a position in a large department store as a sales clerk. "I don't really like working in a store, but it's easy work. I may get a chance to go into management training which would mean a lot more money." A black male noted bitterly that he was "brainwashed by the counselor. He discouraged me from taking college prep and said I wouldn't make it. I didn't have any choice." He was, at that point, unemployed and expected to

enter the military service. A female secretary felt that she only had one high school teacher who was "worthwhile." She was disturbed that principals and teachers could not "control the bad kids, because they were afraid of them," and that "teachers only seemed interested in getting their paychecks and not in kids." A soft-spoken young man said he would have liked to have gone to college, but his counselor told his parents "his marks were too low" and it would be best for him "to prepare for a worthwhile job."

2. Why would you recommend that program to a young person just starting high school?

The majority of the students interviewed felt they would recommend occupational education programs to other students starting high school. They seemed concerned about acquiring the skills which would lead to steady employment and job security. One subject felt that his training was "something I can always fall back on if I want to. In the meantime I can try other things (jobs) to see if I like them." Another noted that "factories need skilled labor. Trade school is best, because you can always get a good job." A young lady claimed her beautician program was very interesting and could be recommended to other students because it "gives you chance to develop thoughts and understanding more. You learn not only to do people's hair, but more about people and understanding." Another beautician decided she would recommend her program because "I think it's easier, easier than the rest of programs. Vocational isn't hard, but it isn't easy either. You only go for one thing in vocational, which makes it simple to concentrate." A young man observed, "When you're looking for a job the first thing they ask you is if you have a college education. If you don't a vocational education is almost as good, maybe better in some ways." A male subject said, "General liberal education is a waste. It doesn't prepare you for anything. It doesn't help you advance yourself at all."

A small number of students were reluctant to recommend an occupational program. The difficulty of transferring from these programs was recognized by one student who concluded, "If he took it (college preparatory) for the first 2 years, then if he wanted to, could switch to vocational. It's hard to switch from vocational to college program." This graduate had attempted to change from printing to college preparatory in his junior year, but claimed "my guidance counselor talked me out of it." An agricultural major stated, I don't think a person in high school is ready to pick. If you're not really sure right now, you shouldn't make up your mind too fast for what you're going to do for the rest of your life." A distribution major felt her training was a waste of time because "job training can be gotten in 6-8 months."

3. In general, what are your feelings about your high school vocational/occupational program?

A large majority of the graduates liked their high school program. "I enjoyed it a lot," one boy exclaimed. "It made school interesting and worthwhile. I figure I'm lucky to have picked a good program with good teachers." Another noted, "I think it's great. It helped me a lot. I don't know if I'd have stayed in school if it wasn't for something that held my interest like this." A third graduate observed that he "thought it (electrical) was very good and informative. We got a very good education. Kids work harder in vocational programs because of interest generated by teachers and students. I really think the opportunity to do the work itself is very helpful. It helps kids find out what they really wanted to do. It exposes them to what a job is really like. They can also see what jobs in other departments are like. A secretarial major concluded that her program was "worthwhile and taught responsibility. What we learned we learned by ourselves through our own effort, since we had to take responsibility for doing work."

A limited number of responses ranged from mild indifference to strong criticism. A secretarial major felt that the program was not "really interesting" and that she did not "really like or dislike it." A male graduate claimed, "The program didn't offer much. It was very structured and we couldn't get any diversification and were stuck in one thing. I would like more than one variety of program and to be able to take more electronics to see other things I might be interested in." Another young man felt the program in metal shop was "too specific and should have been more general." An umemployed auto mechanics major said, "I didn't think it was worth it. I couldn't get a job and neither could some of my friends. Now I can't go to college." A girl working as a practical nurse concluded that the program "was only good for some people. Some girls are too immature for the program. Nursing requires responsibility and some girls are not ready for it." Perhaps one of the most depressing responses came from an apprentice carpenter who had majored in woodworking. "I guess the program is O.K. and not really too bad. It's not as bad as most other courses and school in general because at least some of the teachers seem to like you."

Summary

The consensus of the interviewers was that the students who formed the interview sample were, with few exceptions, polite, neatly dressed, and conservative in attitude. Again, with few exceptions, they came from middle or lower-middle class, blue collar backgrounds and seemed to have moderate aspiration levels. Their primary motivations in choosing a career were based on convenience and the desire, as one subject said, "to earn a living." Comparatively little careful thought or consideration had entered into their choice. The assistance received by professional staff members of the schools appeared to be superficial and careless, particularly by the counselors in

large urban areas. In general, teachers in the occupational education programs seemed to have earned the respect and in some cases the affection of their students.

Any conclusions based on the previous discussion should be made with caution, since sampling bias could have distorted the information gathered by the interviewers. However, it should be noted that none of the information gathered in the interviews conflicted sharply with data gathered in the questionnaire. Consequently, the authors felt that the interview sample was representative of the total population and supported questionnaire findings.

IX. CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are presented on the basis of an analysis of information obtained from the completed questionnaires, interviews, and review of the literature.

1. The majority of graduates did not enter a job area in which they were trained. Further, the majority of graduates did not aspire to work in the same job area for which they were trained.

2. The above findings indicate that specific vocational training may be inappropriate or limiting for many high school students currently enrolled in occupational education programs. The difficulties inherent in making a "final" career choice in the ninth or 10th grade, particularly in the era subject to frequent and rapid societal change, are obvious.

3. Flexibility should be maintained in providing each student with a variety of skills and understandings related to a number of occupational areas or fields. A "cluster concept" of training the majority of the occupational education program students should be developed and implemented by educators. As an example in the "cluster concept" of construction, the

individual should be given the opportunity to experience a variety of occupational areas such as carpentry, electrical, masonry, painting, and drafting, before graduation. Obviously, the graduate will not attain a high level of skill in a specific area, but he should be able to identify one or more trades in which he could participate after graduation.

4. Since many trade unions require an apprenticeship program in the trade area before the individual becomes a journeyman, additional cooperative efforts must be undertaken by schools and trade unions in providing apprenticeship credit for young people.

5. Two of the seven occupational curriculum areas, health and office, were more effective in placing graduates in full-time jobs related to their high school training. Future studies should attempt to determine if health and office curriculum areas are more effective in presenting their job fields, of if job opportunities are more plentiful in these areas.

6. Occupational guidance programs must play a more important role in identifying and counseling young people in terms of selecting high school occupational programs. Both group and individual guidance programs must be established in high schools. In addition, guidance counselors must be more active in placing high school graduates in the jobs they were trained for in high school. If a majority of the students do not aspire to the same type of job as trained for in high school, as indicated in this study, educators must determine the reasons for their attitude and be flexible enough to change their program to meet the needs of these students. Guidance counselors should become aware of trends in manpower demands. It is not suggested that counselors control the educational and occupational choices of students, but that individuals be made aware of specific social, economic, and demographic trends which could affect their future employment.

7. During the interviews, the most frequently stated dissatisfaction related to the competence and attitudes of guidance counselors. Comments were made concerning their lack of interest and their inability to understand adolescents. Although similar comments were made about teachers, the remarks were less frequent and intense. It is interesting to note that few favorable comments were made by any of the 121 interviewees about guidance counselors, but a number of favorable comments were recorded concerning teachers.

8. In general, occupational education students expressed satisfaction with their high school programs. This conclusion was supported by data gathered in the semantic differential and was validated during the interviews. A number of students expressed dissatisfaction with certain academic courses, particularly English and social studies; typically they felt the courses were somewhat irrelevant to their major vocational ambition.

9. Responses on the semantic differential indicate that while the attitude of occupational education graduates toward their high school studies was positive, their attitude toward work was even more positive.

10. Few significant differences were observed when the blocking variables of race and/or ethnic group and welfare payments were analyzed. However, significant differences were observed in a number of areas for the blocking variables of SMSA/OSMSA, sex, and occupational curriculum area. Consequently, it can be concluded that race and/or ethnic group and welfare status did not relate significantly to the questions examined in the study.

11. No attempt was made to examine specific occupational education programs. A study which compared such programs using the blocking variables incorporated in this survey would enable the State Education Department to evaluate and compare specific aspects of vocational programs in the State.

12. In redesigning occupational programs, educators should attempt to provide conceptual learning experience in the three major domains of learning, including cognitive, affective, and psychomotor. A coordinated approach similar to the Partnership Vocational Education Project sponsored by Central Michigan University could be undertaken, so that a cohesive program between the community, colleges, and public schools could be implemented. General education programs, including academic courses and support courses such as industrial arts and home economics, should be included in the sequencing of learning activities which reflect industry and technology. This occupational program should be designed for grades kindergarten through 14.

13. It is felt that the sampling model developed in this study could be used to conduct comparable vocational surveys, as well as other educational studies on a State level. Sampling procedures are appropriate for such studies since these sampling techniques enable researchers to obtain data more quickly and economically.

14. Longitudinal followup studies should be undertaken at the local school district level, as well as the State and national level, to provide background data for analyzing and modifying occupational training programs.

15. Regional or area planning committees should be formed to study the existing high school occupational curriculum area in terms of their effectiveness in training youth for specific employment areas. These groups should also study the new job areas offered in industry as well as those job areas which are decreasing in numbers. A significant aspect of these studies would involve efforts to determine trends in supply of and demand for manpower.

APPENDIX

Letter to Graduate

Questionnaire For Secondary School Occupational Education Graduates, June 1969

May 4, 1970

Dear Graduate:

You have been selected to participate in a survey of June, 1969, graduates from occupational or vocational programs. The study is sponsored by the Bureau of Occupational Education Research of the New York State Education Department.

The research project is being conducted by the Systems Research Center at the State University College at Buffalo. The primary objective of the study is to analyze the career patterns of occupational education graduates. In order to complete the survey, we would be grateful if you would respond to the questionnaire.

Please return the questionnaire in the self-addressed envelope.

Sincerely,

Richard J. McCowan, Ph.D.
Principal Investigator

M. Duane Mongerson, Ed.D.
Project Director

QUESTIONNAIRE FOR SECONDARY SCHOOL OCCUPATIONAL EDUCATION GRADUATES
JUNE, 1969*

Directions: Please complete each item in the three sections of the Questionnaire

I. PERSONAL INFORMATION

1.) Social Security Number (Please List) ☐☐☐

2.) Sex (Please Check) 1.) Male ☐ 2.) Female ☐

3.) Home Telephone Number (Please List) _____

4.) Marital Status (Please Check) 1.) Single ☐ 2.) Married ☐

5.) Have you continued your education? 1.) Yes ☐ 2.) No ☐

6.) If the answer to your previous question is "no," do you plan to enroll in a post-high school program in the next two years?

1.) Yes ☐ 2.) No ☐

7.) If the answer to either Question 5 or 6 was "yes," please check one of the following:

1.) Four-year college or university ☐ 3.) Business or Trade School ☐

2.) Junior College or Technical School ☐ 4.) Other (Please indicate) ☐ _____

8.) Who helped you most in selecting your major program in high school? (Please check one).

1.) Guidance Counselor ☐ 4.) Teacher ☐
2.) Parents ☐ 5.) Your own choice ☐
3.) Friend ☐ 6.) Other (Please Indicate) _____

9.) If a young person just starting high school came to you, which of the following types of programs would you suggest he follow?

1.) General Program ☐ 3.) Vocational or Occupational ☐
2.) College Preparatory ☐ 4.) Other (Please Indicate) _____

10.) Who helped you to get your job? (Please check one).

1.) Employment Agency ☐ 4.) Guidance Counselor ☐
2.) Parents or Relatives ☐ 5.) My own effort ☐
3.) Friends ☐ 6.) Other (Describe) _____

*For the purposes of inclusion in the report, the Questionnaire has been condensed by the deletion of sections primarily intended to facilitate data processing.

11.) How helpful was your occupational or vocational education program to you on the job? (Please Check One).

1.) A great deal of help ☐
2.) Some help ☐
3.) Little help ☐
4.) No help ☐

12.) Do you like your current job? 1.) Yes ☐ 2.) No ☐

13.) Do you feel you will change your place of employment in the next two years? 1.) Yes ☐ 2.) No ☐ 3.) Undecided ☐

14.) If your first job after graduating is different from the one you were trained for in high school, check the ONE major reason you are not working in the field in which you were trained.

1.) No jobs available ☐
2.) Didn't like the job ☐
3.) Not trained for job ☐
4.) Laid off job ☐
5.) Better paying job ☐
6.) Other (Please State Reason) _____

15.) Check how much your weekly salary is before deductions:

1.) Less than $70.00 ☐
2.) $71.00 to $85.00 ☐
3.) $86.00 to $100.00 ☐
4.) $101.00 to $125.00 ☐
5.) $126.00 to $150.00 ☐
6.) $151.00 to $200.00 ☐
7.) $201.00 or more ☐

16.) Race or color (Please Check One).

1.) Negro (Black) ☐
2.) Puerto Rican ☐
3.) Caucasian (White) ☐
4.) Other (Describe) _____

17.) During the last two years, have you or your parents received Public Assistance or Welfare payments? 1.) Yes ☐ 2.) No ☐

18.) Please check your current job status.

1.) Unemployed (Seeking a job) ☐
2.) Unemployed (Not seeking job) ☐
3.) Full-time ☐
4.) Part-time ☐
5.) Active Military Service ☐
6.) Housewife ☐
7.) Other (Please List) _____

II. EMPLOYMENT INFORMATION*

Directions: In this section, please print the job information for each of the following:

A. The job you were trained for in high school. Example: Accounting, Carpentry, Drafting

_____

*In addition to requesting that each respondent write his job title in the appropriate space, the original questionnaire included specific job listings for each of the seven vocational areas. The listings were provided to structure responses and provide a means of verifying the accuracy of the written responses.

B. The full-time job in which you are now employed._____

C. The full-time jobs you have held since graduating.
1st job_____
2nd job_____
3rd job_____

D. The job in which you would like to be employed in the future.

_____

III. ATTITUDE INFORMATION

Please read the following directions before answering the questions labeled A, B, and C.

EXAMPLE

High School Football is:

If "Football" is VERY CLOSELY RELATED TO "important" make your circle as follows:

important (1) 2 3 4 5 unimportant

If "Football" is VERY CLOSELY RELATED TO "unimportant" make your circle as follows:

important 1 2 3 4 (5) unimportant

If it is RELATED to "important" or "unimportant" BUT NOT EXTREMELY, make your circle as follows:

important 1 (2) 3 4 5 unimportant

OR

important 1 2 3 (4) 5 unimportant

If it is NEUTRAL or doesn't make sense, make your circle as follows:

important 1 2 (3) 4 5 unimportant

DO NOT OMIT ANY ITEMS - DO NOT PUT MORE THAN ONE CIRCLE ON A LINE

Now that you have read the example, please complete the following:

A. High School Vocational Training is:

1.) important 1 2 3 4 5 unimportant
2.) useful 1 2 3 4 5 useless
3.) meaningful 1 2 3 4 5 meaningless
4.) practical 1 2 3 4 5 impractical
5.) interesting 1 2 3 4 5 dull

B. Academic Courses such as English or Science are:

1.)	important	1	2	3	4	5	unimportant
2.)	useful	1	2	3	4	5	useless
3.)	meaningful	1	2	3	4	5	meaningless
4.)	practical	1	2	3	4	5	impractical
5.)	interesting	1	2	3	4	5	dull

NOTE: BE SURE YOU HAVE CIRCLED ONE NUMBER ONLY ON EACH LINE.

C. Your feeling toward work is:

1.)	important	1	2	3	4	5	unimportant
2.)	useful	1	2	3	4	5	useless
3.)	meaningful	1	2	3	4	5	meaningless
4.)	practical	1	2	3	4	5	impractical
5.)	interesting	1	2	3	4	5	dull

* *

THANK YOU FOR COMPLETING THE QUESTIONNAIRE. ALL OF THE INFORMATION REPORTED BY YOU WILL BE KEPT CONFIDENTIAL.

PLEASE RETURN TO:

Systems Research Center
State University College at Buffalo
1300 Elmwood Avenue
Buffalo, New York 14222

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