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AUTHOR Lacey, David W.  
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ABSTRACT

Surveyed were 66 residential schools for the deaf concerning career development programs at the schools, as perceived by superintendents. Comprehensive career development services were seen to include vocational instructional programs, vocational counseling, vocational evaluation, referral services, and placement services. Statistical data obtained covered current career development services in residential schools in 1970, projected career development services for 1971-76, and superintendents' perceptions of projected professional manpower and training needs, including appropriate curricula and professional preparation for vocational teachers and counselors. Information obtained was related to implications of labor market trends for vocational curricula and employment of deaf persons. (KW)

A NATIONAL SURVEY OF CAREER  
DEVELOPMENT PROGRAMS  
in RESIDENTIAL SCHOOLS  
for the DEAF

David W. Lacey

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Division of Research & Training  
National Technical Institute for the Deaf  
Rochester Institute of Technology  
One Lomb Memorial Drive  
Rochester, New York 14623

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Educators who direct programs for deaf students are becoming more interested in career development programs, structured interventions aimed at helping deaf students to take advantage of the educational, job-related training, and occupational opportunities that are available (Ginzberg, 1971). This concern for facilitating the career development of deaf persons has grown more acute, as it has become increasingly apparent that current vocational training facilities are grossly inadequate to meet the needs of young deaf adults (Parks & Bowe, 1970). Other authors (Babbidge, 1964; Boatner, Stuckless & Moores, 1964; and Kronenberg & Blake, 1965) have furnished additional empirical evidence to support this fact.

The purpose of this article is to present the results of a survey of current and projected career development services (as perceived by superintendents) for deaf students in residential educational environments. This article is divided into three parts: (1) current career development services in residential schools; (2) projected career development services for 1971-1976; and (3) projected professional manpower and training needs for establishing sound career development programs.

Table 1

1970 Survey of Graduates from 66 Residential Schools

	Graduates	
	No.	%
Total number of graduates during 1970	948	
Participated in vocational programs of residential schools	896	94.5
Accepted full-time employment	343	36.2
Continuing to seek full-time employment	83	8.75
Enrolled in Gallaudet College	132	13.9
Enrolled in NTID	52	5.4
Enrolled in other post-secondary programs	180	18.9
Participating in other activities	96	10.1

From this October, 1970 survey of sixty-six residential schools for the deaf, these five educational/occupational trends emerged for every ten 1970 residential school graduates:

1. 3.6 accepted full-time employment directly after graduation.
2. 2.4 entered Gallaudet College or NTID.
3. 2 enrolled in other post-secondary programs.
4. 1 continued to seek full-time employment.
5. 1 pursued other activities.

The reader will note from Table 1 that 94.5% (896) of 1970 graduates had participated in the residential schools' vocational programs; this percentage included full-and part-time students in their vocational programs. This impressive percentage has obvious implications for

the importance of a sound career development program. The most immediate implication is each residential school's corporate responsibility for upgrading each deaf student's technical skills, knowledge, and social competencies. With a vocational instructional program as one component of a career development program, a residential school is reaffirming its commitment to helping all deaf students over educational and social hurdles. Therefore, each student has a reasonable and realistic opportunity to make a smooth transition from school to educational, governmental, or corporate marketplaces.

#### Current Career Development Services

In Part I of the questionnaire, an effort was made to determine the purposes of offering vocational curricula in residential schools and the extent of career development services which the residential school staff and collaborating agencies are equipped to offer: vocational instructional programs, vocational counseling, vocational evaluation, referral services, and educational/occupational placement.

When superintendents were asked about the purposes of their vocational instructional programs, seventy-five percent (50) of the respondents ranked the purposes in

the following way:

1. Our vocational program is concerned with a student's acquiring skills that can facilitate career progression.
2. Our vocational program introduces a student to basic technical skills required in a trade or job.
3. In our program, a student learns basic technical requirements of a trade, but he must seek further training before being employable.
4. Our vocational program prepares a student for direct entry into the world of work.
5. Our vocational program provides information about various occupations.

It is interesting to note that seventy-five percent of all superintendents who responded are primarily concerned with the development of healthy work attitudes and sound technical skills. These interests of superintendents certainly match those of employers, as reported in two recent studies. In the Gatekeeper Study (Atelsek, 1968), a major concern of employers was the workers' abilities to perform jobs competently and to meet production standards. Also, a survey of employers' hiring criteria in St. Louis and New York City conducted by New York University's School of Commerce indicates

that a good work history and a good attitude toward work (as perceived by employers) are critical ingredients in the hiring decision. Furthermore, this ranking of purposes also suggests that present vocational instructional programs would require post-secondary education and/or on-the-job training. If such a linkage is needed, then, do deaf students entering employment directly after graduation need more help to manage their career development? In what concrete ways do current career development activities impact upon the vocational planning of the non-college bound deaf student? Before these questions can be answered, let us first examine other services that comprise current career development programs.

Table 2

Career Development Activities in Residential Schools for the Deaf

Career Development Activities	Residential Schools		
	<u>Yes</u>	<u>No</u>	<u>No Response</u>
Vocational instructional programs	83% (55)	11% (7)	6% (4)
Vocational counseling	74% (49)	17% (11)	9% (6)
Vocational evaluation	65% (43)	24% (16)	11% (7)
Referral of graduates to other secondary or post-secondary educational settings	85% (56)	7.5% (5)	7.5% (5)
Placement of graduates into work settings	62% (41)	27% (18)	11% (7)

The extent of career development services offered by residential schools and collaborating agencies is reported in Table 2. Residential school programs evidenced the strongest interest in vocational instructional programs (83%--55 schools) and referral services (83%--56 schools). In comparison, support for vocational counseling, vocational evaluation, and placement services is not as broad based. The most striking finding in this analysis is the relatively weak concern for placement and vocational evaluation in comparison with vocational instructional programs and referral services. This finding, however, may be explained, if it is related to the residential school's emphasis on vocational instructional programs and referral services as the traditional components of a career development program.

As Table 2 indicates, vocational instructional programs now seem to be the core for facilitating the career development of young deaf students. The results that appear in Table 3 support this and stress the broad range of vocational curricula available to deaf students. From an analysis of these vocational curricula emerges a distinct trend--an accent on vocational curricula related to semi-skilled and skilled employment. But, are these curricula related to employment forecasts published by the Department of Labor? In point of fact, the results



of Table 3 must be analyzed in relation to future occupational and labor market characteristics.

First the labor force in the United States is becoming younger and better educated. Second, future manpower needs will shift away from goods-producing indus-

Table 3

Vocational Curricula Currently Offered in Residential Schools for the Deaf

Vocational Curricula	No. of Schools
Home Economics	52
Printing	50
Woodworking	42
Business Training	39
Arts and Crafts	36
Drafting	25
Advanced Business Machines	22
Auto Body Repair	21
Upholstery	19
Metal Trades	16
Dry Cleaning	15
Photographic Reproduction and Composition	15
Clothing	14
Baking	13
Power Machine Sewing	12
Industrial Arts, Food Service, Shoe Repairing	11
Industrial Welding	9
Cosmetology	6
Residential Electrical Service	5
Building Maintenance, Electronics, Laundry	5
Machine Shop, Driver Education, Barbering	4
Horticulture, Heating and Ventilation	3
Small Engine Repair	3
Carpentry, Industrial Spray Painting	2
Numerical Control Machine Tool, Leather Crafts	2
Medical Assistant	2
Tool and Die-Making, Tool and Cutter Grinding	1
Auto-Screw Machine, Dance, Masonry, Plastics	1
Sign Painting, Library Aids, Floriculture	1
Nursing Aid, Quality Control, Agriculture	1
No Vocational Courses	6

tries toward a service-dominated economy (Hodgson, 1971). Third, by 1980, nine of every ten new jobs will be in the service area.

These labor market trends have three major implications for vocational curricula and, therefore, for employment of deaf persons (Department of Labor, 1970):

1. Competition for low skill jobs will likely increase, as fewer jobs at those levels become available.
2. Educational requirements for employment may increase as more persons who attain higher educational levels enter the labor force.
3. Vocational curricula in residential schools for the deaf should be expanded to include vocational-technical training for service occupations such as dental assistant, medical laboratory assistant, sewage plant operator, orthopedic cast specialist, radiologic technologist, forestry aids, and library technicians (Lefkowitz & Ausmus, 1970).

Table 4

Vocational Courses Added During 1965-1970	
Vocational Courses	No. of Schools
Business Training, Upholstery	11
Offset Printing, Automated Business Machines	10
Auto Body Repair	10
Drafting	9
Photography	8
Business Practices	7
Dry Cleaning, Home Economics	6
Metal Trades, Electronics, Food Services	5
Arts and Crafts, Key punch, Woodworking	4
Power Machine Sewing, Industrial Welding	4
Industrial Arts, Building Maintenance	3
Small Engine Repair	3
Building Trades, Machine Tool Trades	2
Horticulture, Heating and Ventilation	2
Residential Electrical Service, Numerical Control	1
In-Plant Printing, Library Aids, Masonry	1
Cosmetology, Power Mechanics, Sign Painting	1
Data Processing, Shoe Repair, Carpentry	1
Industrial Sewing, Plastics	1
No Courses Added	17

Table 5

Vocational Courses Discontinued During 1965-1970	
Vocational Courses	No. of Schools
Shoe Repair	6
Beauty Culture, Leather Crafts, Sewing	1
Electronics, Vocational Agriculture	1
Greenhouse Operation, Painting, Auto Maintenance	1
Circuitry Wiring, Key punch, Barbering	1
Upholstery, Woodworking, Drafting	1
No Courses Dropped	47

Educators of deaf persons have been updating vocational curricula. Tables 4 and 5 report shifts in vocational curricula that have occurred during the last five years, as a result of monitoring manpower trends. In comparing Table 4 with Table 5, it is interesting to note that these ten vocational curricula have simultaneously been discontinued and added: shoe repair, cosmetology, sewing, electronics, horticulture, auto body repair, keypunch, upholstery, woodworking, and drafting. This apparent contradictory set of facts may be explained, if manpower needs in a specific geographic region are examined; that is, the need for shoemakers may be increasing in the northeast, while the need is decreasing in the southeast. Whether the results as reported in Tables 4 and 5 are, indeed, contradictory or are reflective of varying manpower needs in different geographic regions, the results of this survey would suggest a more systematic coordination of changes in vocational curricula among residential schools. If such a system were established, then, educators of deaf persons could better link their vocational curricula to forecasted manpower needs and actual employment opportunities.

Table 6

Personnel Responsible for Vocational Evaluation	
Personnel	No. of Schools
Principal	29
Supervising Teacher (Academic)	23
School Counselor, Vocational Director	17
Supervising Teacher (Vocational Department)	17
Vocational Rehabilitation Counselor	12
Superintendent	7
School Psychologist	6
Assistant Superintendent	5
Director of Educational Services, Vice Principal	5
Work-Study Coordinator	4
Parents	3
Director of Girls' Vocational Services, Audiologist	2
Curriculum Coordinator, Student	2
Dean of Students, Dean of Studies, Social Worker	1
Assistant Supervising Teacher	1
No Persons Designated	11

Table 7

Personnel Responsible for Vocational Counseling	
Personnel	No. of Schools
Vocational Rehabilitation Counselor	24
School Counselor	19
Vocational Director, Principal	15
Supervising Teacher (Vocational)	11
Supervising Teacher (Academic)	10
Work-Study Coordinator	9
Superintendent	6
Vice Principal	4
Director of Educational Services	2
School Psychologist	2
Director of Girls' Vocational Services, Headmaster	1
Dean of Students, Vocational Assistant	1
Assistant Supervising Teacher (Academic)	1
Social Worker	1
No Persons Designated	6

In addition to vocational curricula and the associated instructional staff, superintendents employ persons for vocational evaluation and vocational counseling. Tables 6 and 7 list the same persons as responsible for vocational evaluation and vocational counseling. From Tables 6 and 7, it is evident that principals, supervising teachers (academic and vocational), school counselors and vocational directors are most involved in the process of vocational evaluation and vocational counseling. Although each superintendent was asked to respond to these two questions from a management or organizational perspective, it is interesting to note that only two superintendents nominated "students" as persons responsible for vocational evaluation. If vocational evaluation and vocational counseling are viewed as processes in which a deaf student attempts to clarify his educational and occupational goals, reviews his strengths and weaknesses, and explores the answers to questions about which he is uncertain, then the deaf student should and must be involved in vocational evaluation and counseling.

Table 8

Superintendents' Perceptions of the  
Vocational Counseling Process and Program

Vocational Process and Program	No. of Schools
A student's academic and vocational performance is evaluated.	13
A student's ability is evaluated in relation to his interests.	13
A student is alerted to relevant occupational information.	13
Staff members suggest appropriate vocational choices.	13
A student and a staff member (faculty and/or administration) select a vocational program.	13
A student enrolls in a vocational program.	13
A student and a staff member plan for post-secondary education or employment.	13
Vocational rehabilitation counselor conducts a vocational counseling program.	9
No vocational counseling programs have been established.	33
No comment.	10

While it is easy to justify a deaf student's involvement in career development activities because of their importance in helping him develop and implement educational and occupational objectives, some attention must be paid to the non-existence of sound vocational counseling programs. Table 8 reports that thirteen residential schools have a vocational counseling program whose core services would be relevant to student needs. The most striking finding is that, of the sixty-six schools surveyed, thirty-three residential schools report that no vocational counseling program has been established. A vocational counseling program is a necessary, but often a major undertaking for

a residential school. The lack of available manpower has tended not to ensure an established vocational counseling program and programmatic continuity. The absence of a vocational counseling program presents a long-term hazard for the career development of deaf students.

#### Career Development Services for 1971-1976

Part II of the questionnaire inquired about projected activities for vocational curricula, vocational evaluation and counseling, professional manpower needs, and an employer's occupational outreach program.

Answers to the question about projections for vocational curricula are recorded in Table 9. However, six of these projected vocational courses have already have been discontinued in one or more residential schools: electronics, auto body repair, upholstery, woodworking, cosmetology, and horticulture. Again, earlier comments concerning the selection of vocational courses in relation to market trends are applicable. However, the six innovations at the bottom of the Table, although reported by only one school, suggest healthy trends that more residential schools might adopt. In particular, such activities as a continuing education program and an expanded work experiences program would go a long way toward helping deaf students view their career development as



a life-long process and relate their educational opportunities more directly to the world of work.

Table 9

Superintendents' Projections of  
Vocational Programs for 1971-1976

Vocational Curricula	No. of Schools
Electronics	9
Small Engine Repair, Auto Body Repair	7
Homemaking, Graphic Arts, Business Education	5
Upholstery, Business Machines	4
Cooperative Vocational Program with Local High School, Career Orientation and Exploration Program	3
Metal Works, Printing, Woodworking, Dry Cleaning	2
Welding, Industrial Food Preparation	2
Building Maintenance, Computer Programming	2
Cosmetology, Plastics	2
Heating and Ventilation, Book Binding	1
Blacksmith, Appliance Repair, Carpentry	1
Offset Printing, Mechanical Drawing, Horticulture	1
<u>Other Curricula Innovations:</u>	
Bus students to hearing high school for vocational program.	1
Establish a program in continuing education.	1
Establish a work-study program.	1
Offer an Associate of Arts degree.	1
Establish a vocational program that concerns introduction to and establishment of good work habits and work attitudes.	1
No projections made.	17

The next question inquired about the superintendents' projections for their vocational counseling and evaluation program. Most respondents focused on coordinated vocational counseling programs leading to better student self-assessment and a sound testing program that would tap relevant occupational aptitudes, achievements, and interests. These two thrusts for vocational evaluation and vocational counseling would facilitate educational and occupational decision-making, as they require that the individual learn more about himself and about the world of school and work. Inevitably, the deaf student must integrate these two types of knowledge in making his plans. These results are presented in Table 10.

Table 10

Superintendents' Projected Vocational Evaluation  
and Counseling Services for 1971-1976

Projected Services	No. of Schools
Provide counseling services together with earlier evaluation of students' competencies by personnel in Vocational Education Department.	11
Establish a testing program that includes valid and reliable tests of occupational interest and aptitude.	7
Introduce students to the world of work through work experiences and disseminate occupational information through movies, field trips, guest speakers, and an occupational library.	5
Add a rehabilitation counselor to the staff.	5
Involve parents and students in a counseling program about occupations.	1
No projections made.	26

The programmatic thrust within the residential environment will be supplemented by employer outreach programs reported in Tables 11 and 12. Approximately sixty-five percent (43) of all respondents plan an employer contact program. When the superintendents were asked to describe the content of an employer contact program, they seemed to prefer two formats: (1) direct contact with local employers through visitations and presentations to industrial groups and Chambers of Commerce; and (2) establishing a work-study program in local industry. Both direct employer contact and work-study programs provide forums for introducing deaf students to occupational environments and employers to deaf persons as potential workers.

Table 11

Projected Employer Contacts for 1971-1976

Projected Employer Contacts	No. of Schools
Planned contact	43
No contact planned	5
No comment	11

Table 12.

Local Employers' Programs	
Programs	No. of Schools
Contact local employers through visitations, letters, and presentations to industrial groups, Chambers of Commerce, etc.	14
Establish a work-study program in local industry.	12
Survey local industry to identify current and future manpower needs.	4
Interface with vocational program and regular high school and/or federal employment programs.	3
Encourage vocational teachers to maintain membership in professional trade groups.	1
Employ a counselor to work with employers in the community.	1

Obviously, these projected career development activities have implications for professional manpower needs. Superintendents reported that they will need more vocational teachers and vocational guidance personnel to provide these critical career development activities. The results are presented in Table 13.

Table 13

Projected Vocational Staff Composition  
for 1971-1976

Personnel Needs	No. of Schools
Vocational Guidance Personnel	24
Vocational Teachers	19
Work-Study Coordinator	4
Vocational Supervisor	3
Placement Officer, Social Worker	1
Academic Teachers, Teachers' Aids	1
School Psychologist	1
Vocational Rehabilitation Counselor	1
Media Specialist	1
No projections made	25

### Professional Manpower and Training Needs

Part III of the questionnaire was designed to examine superintendents' perceptions of training needs, appropriate curricula for vocational teachers and counselors, and professional preparation for vocational counselors and vocational teachers.

Seventy-two percent (47) and seventy-three percent (48) of all respondents perceived the need for training programs to prepare respectively vocational teachers and vocational counselors. Sixty-one percent (40) of all respondents urged NTID to establish such a program for vocational teachers; sixty-four percent (42) for vocational counselors. These results further support superintendents' needs for more trained personnel as reported in Part II of the questionnaire. If a training program that emphasized knowledge and skills in career development were designed for vocational teachers and counselors, at least these two premises should be fulfilled: (1) program content should fit with the realities of an educational setting in which these individuals work; and (2) the program should stress field experiences and de-emphasize classroom instruction.

Table 14

Superintendents' Perceived Training Needs			
Training Needs	No. of Schools		
	<u>Yes</u>	<u>No</u>	<u>No Response</u>
There is a need for a program to prepare vocational teachers.	47	5	14
There is a need for a program to prepare vocational counselors.	48	3	15
NTID should establish a training program for vocational teachers.	40	9	17
NTID should establish a program for vocational counselors.	42	6	18

The next questions in Part III were designed to examine superintendents' interest in the curriculum content for vocational teachers and vocational counselors. From Table 15, it is apparent that communications and the psychology of deafness were the important content areas. However, forty-seven percent (31) of all respondents made no comment about curriculum design. For vocational counselors (Table 16), superintendents again stressed communications skills, as well as interviewing, test administration and interpretation, vocational counseling, and supervised practicum. Based on the items in Table 16, this core curriculum for vocational counselors might be designed:

1. Basic psychological principles.
2. Psychology of deafness.
3. Basic and advanced communication.
4. Theory and techniques of individual and group counseling.
5. Psychological appraisal, individual and group testing.
6. Knowledge of cultural environment, economics, and the labor market.
7. Educational and occupational information.
8. Professional ethics.
9. Statistics and research methodology.

Table 15

Superintendents' Perceptions of Curriculum  
for Vocational Teachers

Curriculum Content	No. of Schools
Manual communication skills	14
Psychology of deafness	7
Methods course (Vocational Education)	6
Language problems of the deaf	5
Training in a particular trade or skill	5
Practicum experience	5
Theories of learning	3
Work experience in a trade prior to teaching	2
No comment	31

Table 16

Superintendents' Perceptions of a Curriculum  
for Vocational Counselors

Curriculum Content	No. of Schools
Interviewing	25
Test administration and interpretation	25
Vocational counseling and supervised practicum	25
Communication skills	14
Industrial evaluation--how to identify manpower needs of local industry, and how to conduct a job analysis in em- ployment settings.	14
Psychology, Sociology, and Physiology of Deafness	9
No comment	27

The final set of questions concerned the professional preparation (prior work experiences) needed to become a vocational teacher or a vocational counselor. From Table 17, it can be seen that forty-seven percent (32) of all respondents indicated that the work experiences of a skilled craftsman would prepare a person to become a vocational teacher. This perception is somewhat surprising, since prior work experience was rarely checked in relation to curriculum content for vocational teachers (Table 15). Again, communication skills are stressed. Furthermore, superintendents stress state certification as a teacher, not just certification as a teacher of the deaf. This fact is especially important, because many superintendents report that they are seeking accreditation for their high school programs by various State



Boards of Education.

Table 17

Superintendents' Perceptions of Professional Preparation  
for a Vocational Teacher of the Deaf

Professional Preparation	No. of Schools
Skilled tradesman	32
Communication skills	21
Certification by State Department of Education	14
Certification as a Teacher of the Deaf	3
Knowledge of deafness' effect on student behavior	5
Knowledge of employer expectations and employment trends	4
Psychology of deafness	3
Using media to present occupational and/or vocational materials	2
Prior association with Deaf Education	2
No comment	13

Table 18

Superintendents' Perceptions of Professional Preparation  
for Vocational Counselor of the Deaf

Professional Preparation	No. of Schools
Communication skills	20
Degree in vocational counseling	11
Knowledge of deaf persons' competencies	10
Trained as a vocational educator	8
Contacts with local industry	7
Degree in Rehabilitation Counseling	6
Knowledge of vocational opportunities for deaf persons	6
Understanding of psychological problems associated with deafness	5
Demonstrated competency in individual and group testing	4
Previous experience as a teacher of the deaf	3
Practicum experience in counseling the deaf	2
No comment	18

For the professional preparation of vocational counselors, superintendents stress communication skills and a degree in vocational counseling.

### SUMMARY

The results of this survey indicate that support for career development activities exists among educators of deaf persons throughout the United States.

This support was evidenced in the unusually high number of institutions contacted responding (80%), and the strong interest on the part of individual superintendents in the topics surveyed. A high percentage (85%) of the respondents suggests that a referral service is an important component of a career development program, and eighty-three percent strongly supported vocational instructional programs in residential schools. Furthermore, superintendents expressed more interest in vocational instructional programs and referral services than in vocational counseling, vocational evaluation, and placement services.

When one examines superintendents' projections for career development services in the years 1971-1976, they reflect a strong interest in establishing and developing a vocational counseling program. In addition to such a

vocational counseling program, superintendents plan to expand the vocational instructional program to include such activities as a continuing education program and a work-study program. As these changes are occurring within the residential school, other innovations will take place outside the school, e.g., more contact with employers and vigilant monitoring of local manpower trends. This latter activity will facilitate the development of vocational instructional programs that would closely match the manpower needs of the local marketplace.

If these projections are more than rhetoric, and actually become important components of the residential schools' total educational system, then professional manpower needs must be met. The superintendents surveyed recognize this fact and indicate they plan to add more vocational teachers and vocational counselors to their professional staffs.

Comprehensive career development services--vocational instructional programs, vocational counseling, vocational evaluation, referral services, and placement services--hold the promise of making a significant contribution to the educational/career decision-making of deaf students. Thousands of vocational decisions will shape the manpower

future of deaf persons. These decisions should be informed, and it is to that end--to help the decision-making student gather the most accurate knowledge of himself and the world in which he must work and pursue his career--that superintendents are developing and establishing career development programs.

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