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# An evaluation study of the rehabilitation service in Virginia

Mabel Leigh Rooke

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AN EVALUATION STUDY OF THE REHABILITATION SERVICE  
IN VIRGINIA

BY

MABEL LEIGH ROOKE

A THESIS  
SUBMITTED TO THE GRADUATE FACULTY  
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## PREFACE

After working in close cooperation with the Virginia Vocational Rehabilitation Service for over four years, the writer was especially interested in this study.

Convinced that this organization has some rather unique qualities as a State agency, and that its own enthusiasm is its greatest asset, this appraisal hopes to achieve only three things: First, a clear record of the evolution of the Rehabilitation Service in Virginia; second, to define and appraise the functions of the Service in terms of accomplishment; and third, to determine relative strengths and weaknesses through objective study.

If these findings prove of value to the organization concerned and to rehabilitation workers elsewhere, their use will have justified an intensely interesting study.

This thesis was prepared under the supervision of Dr. Merton E. Carver, Chairman of the Department of Psychology, University of Richmond. It was his interest and helpful planning that resulted in the writer's return to graduate work, and it has been his friendly

# I

## INTRODUCTION

### (1)

Since 1920 the Commonwealth of Virginia has had an organized Civilian Vocational Rehabilitation Program, having enacted the legislation creating the Service a few weeks prior to the passage of the Federal Act in June of that year. A national consciousness of the crippled and disabled had been awakened following World War I which culminated in the Veteran Rehabilitation Act. This was, actually, the forerunner of all later legislation meeting the popular demand for a program available to all citizens, and which now reaches into all of the forty-eight states and the District of Columbia as well as Alaska, Puerto Rico, and Hawaii.

Basically, the purpose of the Vocational Rehabilitation Service is to assist the handicapped individual of adult age to determine for himself a satisfactory vocational plan, to train and prepare for his employment goal, and to obtain and become established in a job congenial with his plan. The achievement of such a comprehensive undertaking necessi-

tates many phases of activity which will be considered in greater detail later.

In order to understand the methods employed in accomplishing the rehabilitation objective and the problems encountered, a summary of the development of this steadily expanding program on both the federal and state (Virginia) levels will serve to define the responsibilities of the Service as well as the established limitations in its functioning.

Prior to the establishment of provisions for rehabilitation education there was existing legislation providing for the payment of specified sums to those disabled in industrial accidents (Workmen's Compensation),<sup>1</sup> but this made no provision for future security for the disabled worker and his dependents, and there was no cognitive effort to provide for the congenitally handicapped, the victims of highway, home, and other accidents, nor for the victims of crippling diseases.

The Fess-Kenyon Civilian Vocational Rehabilitation Act in 1920 provided Federal-State grants-in-aid for vocational rehabilitation training assistance to those who were physically handicapped and for placing them in jobs, provided that these disabled persons possessed the capacity for complete self-support through reeducational aid.<sup>2</sup> Since only those whose ultimate complete self-support could be predicted with a high degree of certainty could be accepted for rehabilitation service, all borderline and many difficult cases were necessarily eliminated. The entire problem

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<sup>1</sup>Bulletin, State Board of Education, Vol. XXIV, No. 2, August, 1941, p. 53.

<sup>2</sup>Congressional record reprint of the Fess-Kenyon Act.

of physical restoration was another serious omission in this early Act, but it must be conceded that a valuable beginning had been made in its recognition of the need of the disabled. This legislation became the foundation for all future developments and services for this long neglected group in society.

It was not until 1943 with the passage of Public Law 113 by the Seventy-eighth Congress that the rehabilitation program of vocational guidance and training, placement and follow-up was expanded to a total service for the disabled. This Barden-LaFollette Act, a series of amendments to the original Vocational Rehabilitation Act, provided funds for medical diagnosis and treatment, physical restoration including prosthetic appliances, medical and surgical care, hospitalization and psychiatric therapy. Also, licenses, tools and equipment, maintenance and transportation now became available to those unable to provide these necessities for themselves.<sup>5</sup>

Indicative of these radical changes is the descriptive phrasing in the 1943 revision. While the 1920 Act provided rehabilitation service for the "physically disabled", the newer version provides for "vocational rehabilitation of persons disabled in industry or otherwise and their return to civil employment". It is here that the mentally handicapped gain their first recognition of rehabilitation need, and there are additional special provisions made for the blind, for federal government employees, and war disabled civilians injured in line of duty, all of whom are provided for in this new version of vocational rehabilitation.

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<sup>5</sup>Public Law 113 - 78th Congress. Chapter 190 (H.R.2536). The Barden-LaFollette Act.



Following the passage of the Barden-LaFollette amendments which designated the Federal Security Administrator as administratively responsible for carrying out the provisions of Public Law 115, the Office of Vocational Rehabilitation was established to put this program into effect and to give it centralized and coordinated direction.

Since each state and territory is required to submit a plan of operation, approval of which is a contingent for the receipt of Federal funds, the Federal office serves as a unification agent assuring the operation of each state unit within the limits of Federal law as well as in a manner consistent with the states' legislative decrees. The Office of Vocational Rehabilitation is the authorizing agent for the certification of grants-in-aid funds allocated to the individual states following approval of the State plan, and it is charged with the responsibility for technical assistance to the state offices, and the establishment of adequate standards for the various phases of rehabilitation work.

In addition to the above functions, the National office, assisted by seven regional offices, serves to stimulate not only a stronger Federal-State partnership but also a more intimate inter-state cooperation. Each regional office has the position of liaison between the Office of Vocational Rehabilitation and the states within its jurisdiction, thereby serving a valuable interpretive role.

As has been mentioned previously, the Virginia Rehabilitation Service was created by the General Assembly prior to the passage of the Federal Act, and it was not until 1922 that the Biennial State legislature

convened and gave legislative sanction to the specific Federal provisions of the original act through parallel state statutes. However, a gubernatorial acceptance of the Federal act had followed promptly the passage of the Fess-Kenyon Bill, and the program continued without interruption in Virginia during months of transition. During the twenty-nine years of its history in Virginia the Rehabilitation Service has made tremendous strides in the steadily increasing numbers of persons whom it serves.

The Virginia Rehabilitation Service has been a part of the State Department of Education since 1928, and in 1938 it was included in the organizational plan of the Division of Rehabilitation, Special, and Adult Education of the Vocational Education Department.<sup>4</sup>

Under the executive supervision of the Director of the Division of Rehabilitation, Special and Adult Education there are at the present time twenty-two professional rehabilitation specialists and supervisors (20 field workers and two state office supervisors) with ten field offices conveniently located to serve every section of the State. As vivid evidence of the rapid expansion of the Rehabilitation Service in Virginia it may be noted that there were only six professional workers in the entire State (one of these the director) and two offices, with one serving as the administrative office, in 1940.

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<sup>4</sup>Bulletin, State Board of Education, op. cit., pp. 54-55. ("A Description of Services available to local school divisions through the Division of Rehabilitation, Special, and Adult Education")

During that year the entire state service operated on a budget of \$111,751.50 which provided administration, guidance and supervision, artificial appliances, maintenance and other case services including training. However, just seven years later the 1947-48 fiscal year shows a total expenditure for rehabilitation service in Virginia of \$472,158.14, an increase of over 400%.<sup>5</sup> (See Table I for budgetary figures)

TABLE I

Budgetary Allocations

Virginia Vocational Rehabilitation Service

	<u>1940-41</u>	<u>1947-48</u>
Administration	\$10,310.00	\$ 18,949.14
Guidance and supervision	19,250.00	128,632.22
Case services:		
artificial appliances	\$ 5,500.00	
maintenance	5,500.00	
other (including training)	71,191.50	
	<u>82,191.50</u>	<u>259,576.78</u>
Totals	\$111,751.50	\$407,158.14*

(\*note: This figure does not include \$65,000.00 used for capital improvements at the Woodrow Wilson Rehabilitation Center)

It will be recalled that in 1943 the Federal government assumed financial responsibility for all administrative costs within the State as

<sup>5</sup> Annual budgetary reports, Virginia Vocational Rehabilitation Service - 1940-41 and 1947-48.

well as for the counseling and guidance service. The medical diagnosis and treatment, training, physical restoration, and related activities are financed on the basis of state matched federal grants determined according to the latest State census figures, with one exception, namely, the service provided war disabled civilians, and expenses for these are borne as totally reimbursable from Federal funds.

This extensive liberalization of Federal operating policies and of fiscal provisions was immediately reflected in Virginia, both in the increased number of persons rehabilitated and in the variety of services rendered as an accompanying parallel to the budgetary increases. The annual earnings of the rehabilitants also show a commensurate increase with the expanded services. (See Table II - Page 10)<sup>6</sup>

The additional services provided by the Barden-LaFollette Amendments in 1943 were utilized as rapidly as possible by every State division, and this was equally true in Virginia.

It has been noted that correctable static disabling conditions which create impermanent physical employment restrictions (such as hernias, tumors, etc.) were included in the new eligibility list of disabilities, and this service found numerous clients in the State ready to avail themselves of the new medical and surgical treatment offered. Such assistance could often achieve a permanent correction of the physical handicap and

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<sup>6</sup>Summary presented in Annual report of Va. Rehabilitation Service, 1947-48. Filed in Administrative office, Vocational Rehabilitation Service, Vocational Education Division of Virginia Dept. of Education.

TABLE II

Rehabilitations: Their Costs and Their Earnings  
in Virginia, 1928 - 1948

YEAR	COST	REHABILITATED:		NO. ACTIVE ENROLLMENTS	NUMBER IN REHAB. PROGRAM
		NUMBER	EARNINGS		
1928 - 29	\$ 21,342.10	21	\$ 15,504.00	649	107
1929 - 30	29,621.38	38	32,578.00	858	148
1930 - 31	33,429.86	53	42,856.50	710	233
1931 - 32	39,481.69	77	57,472.00	960	296
1932 - 33	36,686.79	103	57,945.00	1,180	329
1933 - 34	40,087.92	203	146,045.20	1,741	646
1934 - 35	55,493.57	240	159,478.00	1,890	693
1935 - 36	65,911.76	262	165,526.00	2,278	799
1936 - 37	69,588.64	275	198,656.12	2,375	924
1937 - 38	72,101.82	214	153,515.32	2,534	983
1938 - 39	66,992.17	201	162,864.00	2,562	976
1939 - 40	93,574.33	209	182,089.00	2,709	958
1940 - 41	98,176.59	327	317,410.00	2,968	1,174
1941 - 42	101,670.25	544	632,255.00	3,996	1,513
1942 - 43	115,869.62	1,278	1,882,926.00	6,630	2,318
1943 - 44	133,340.57	1,285	2,171,156.00	9,184	2,255
1944 - 45	167,171.17	930	1,487,856.00	8,859	1,890
1945 - 46	224,218.14	825	1,326,052.00	6,248	1,614
1946 - 47	295,506.42	993	1,489,500.00	7,323	1,957
1947 - 48	*386,335.68	982	1,473,646.00	7,419	2,004

Summary of data from Va. Rehabilitation Service Annual Report, 1947 - 48, covering period the Service has been a part of the Department of Education  
\*Does not include costs in establishing Woodrow Wilson Rehabilitation Center.

provide new employment opportunity or enable the client to continue in his same job without loss of efficiency.

There was a further service expansion in 1944 when the Office of Vocational Rehabilitation issued a directive that housewives might be included in the program since they were employed in the home and both their own welfare and that of their families were dependent upon their ability to work, although financial remuneration is not involved in their employment.<sup>7</sup> Prior to this time no benefits were included for this group, and marriage itself constituted a reason for ineligibility.

In order to better equip the supervisory staff to work with neurological and mental disabilities and to better understand the epileptic rehabilitants within the new eligibility groups, training conferences were held at the Neuro-psychological Clinic at the University of Virginia once a month for fourteen months in 1944-45. Also, plans were worked out with mental hospitals to accept their discharges for rehabilitation, and, here again, staff training continued to be employed. As a result of these training needs and the efforts to meet them, there was an understandable delay in beginning work with several types of disabilities. At this time, however, all phases of the expanded program are in effective operation in Virginia.

It should be added here that the rehabilitative services for the blind will not be treated in this study, since there is long established in

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<sup>7</sup>Information obtained by the writer by direct communication from the State Supervisor, Vocational Rehabilitation Service.

the Commonwealth a separate agency (Virginia Commission for the Blind) whose sole responsibility is work with the blind, and, therefore, they are not served by the Vocational Rehabilitation Service. All other types of disability within the broad categories previously mentioned are included, and more detailed information about these eligibility groups will be given later.

(2)

As a State controlled and operated program, the Vocational Rehabilitation Service can be studied evaluatively only at the State level. Although Federal aid in the form of monies and policy determinants has been established, the actual success of the service is dependent upon the workers in the field, - in Virginia, the twenty field supervisors working in close cooperation with their State office and with the communities as well as discovering and aiding the disabled individual himself.

In the 1947-48 Annual Report of the Virginia Rehabilitation Service, vocational rehabilitation is described as "a service designed to equip for and adjust in appropriate trades or occupations persons of work age whose vocational possibilities, without such an adjustive service, are limited by reasons of some impairment of long standing."<sup>8</sup> This definition

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<sup>8</sup>Annual Superintendent's Report, Virginia Dept. of Education, 1947-48. p.1.

has appeared in previous reports (also note 1940-41 Report), although it seems to be somewhat less than adequate in its total emphasis upon 'vocational' rehabilitation even when the Service itself, in practice, seems completely cognizant of the more numerous facets of rehabilitative adjustment, without which an occupational adjustment could not be realized.

Somewhat more comprehensive is the explanation given in Public Law 113 that "the term 'vocational rehabilitation' and the term 'rehabilitation services' means any service necessary to render a disabled person fit to engaged in remunerative occupation".<sup>9</sup> However, the most adequate understanding of the goal of rehabilitation is expressed by the National Council on Rehabilitation in its report stating that "vocational rehabilitation is the restoration of the handicapped to the fullest physical, mental, social, vocational, and economic usefulness of which they are capable".<sup>10</sup> This definition possesses richer insight into the necessary processes which comprise rehabilitation, and it implies the numerous related adjustments integrated in it. Although employment and economic adequacy are the end product toward which the program is directed, it is the whole person who will be employed, and he and his environment must be congenial one with the other. While inadequately expressed in their verbal description of this goal, the State Rehabilitation Service shows general awareness of this need.

The preceding clarification of the rehabilitation objective serves to point out the inclusiveness of the Service, while careful study reveals

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<sup>9</sup>Barden-LaFollette Act, *op.cit.*, 1943.

<sup>10</sup>"The process of Rehabilitation". Report of the Committee on the Process of Rehabilitation, National Council on Rehabilitation, New York, 1947.



very simple eligibility requirements and rather broad and elastic criteria for use of the Service after the passage of the 1943 amendments. The basic requirements for rehabilitation eligibility are:

1. The applicant must be of employable age (with 16 years the minimum age acceptable in Virginia).
2. The disability, either physical or mental, must be one which actually presents an employment handicap.
3. The applicant must be potentially capable of becoming employable.

Anyone meeting these several requirements is free to request the service he needs from any convenient field office or itinerant supervisor.

In addition to providing this service, the State staff is charged with the responsibility for locating those persons within the State who can be benefited by reeducation, and each supervisor is constantly alert to recognize any individual who can be benefited, to seek him out, and to assist him to utilize this public service.

Having discovered the prospective rehabilitant, a complete physical examination is required as a prerequisite for further consideration, and this is provided by the Agency. Then, when eligibility is established, any and all of the services provided by the Vocational Rehabilitation Service may be employed as needed to effect a successful adjustment. Such services as medical treatment, surgery, hospitalization, therapy and prosthetic appliances are provided according to the individual's ability to pay for them, as are maintenance, transportation, tools, equipment, and licenses, but counseling and guidance and training programs where indicated are pro-

vided for all clients without charge. The above services are regarded as the basic provisions for rehabilitation, but job placement is the ultimate goal, and, a follow-up study of the success of each individual's rehabilitation plan is the final service in a satisfactory adjustment.

Counseling and guidance is the continuous service which each disabled person receives, beginning with his first interview and actively employed when the medical diagnosis and recommendations are reviewed, during varied aptitude and interest tests, and throughout the contacts between the supervisor and the counselee while either physical restoration or training is in progress. Only with thorough knowledge, understanding and interest can the Rehabilitation supervisor integrate all the necessary factors related to the client's goal directed vocational planning. Through these interviews the supervisor builds the cooperation of the client which is so essential to this working team, and it leads to the counselee's understanding of his own assets and liabilities and in developing a realistic confidence in his actual ability.

Throughout the actual rehabilitation process certain basic methods of accomplishing the plan are used. First, the Service has no physicians, therapists, psychiatrists, or related specialists on its Staff, but utilize the facilities within each community. Hospitals, schools, colleges, and other rehabilitation agencies are sought when and where needed, and both public and private resources are employed, but the Rehabilitation Service does not compete with existing services.

This policy of utilizing existing facilities is not violated by the recent development of a Rehabilitation Center as a part of the Virginia

Rehabilitation Service since there is no other comparable service in the State either public or private. Building and grounds formerly used as the Woodrow Wilson Army General Hospital near Fishersville have been converted into classrooms, workshops, dormitories, physical and occupational therapy quarters, and other necessary facilities.<sup>11</sup> This provides a center with a capacity for 350 students which will serve the entire State as a "vocational preparation" center and to which disabled students will be sent by Rehabilitation supervisors throughout the State for the following services:

- "(1) Vocational guidance including complete testing, vocational exploratory courses and vocational try-out opportunities,
- (2) vocational training in trades and occupations not elsewhere available in the State and under conditions particularly favorable to handicapped persons, and
- (3) physical reconditioning and functional training of handicapped persons to reduce or remove, through modern physical medicine procedures, work handicaps." <sup>12</sup>

Since a Regional Technical School is located on the same grounds, ample training facilities are being developed and fifteen vocational training courses are already in progress.

Opened in November 1947, the Woodrow Wilson Rehabilitation Center has received widespread interest, and its progressive development and expansion is being watched with keen interest by other state rehabili-

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<sup>11</sup>A tour of these facilities was made in March, 1949 and the operation of the center as well as future plans were explained.

<sup>12</sup>Superintendent's report, 1947-48 op.cit. p. 4.

tation services.

In addition to the new developments in rehabilitation work now being undertaken at Woodrow Wilson, other trends can be noted in studying the service over a period of several years. A report of these studies recently made and their findings will be reviewed before attempting to discuss either immediate needs or future trends in the Virginia Rehabilitation Service.

## II

### STATISTICAL DATA: ANALYSIS OF TRENDS

Created and operated as a public service agency, the existence of the Vocational Rehabilitation Service is justified only to the extent that it does serve the entire segment of the population it is purported to serve.

One is cognizant of the relative factors in an optimum service and of the quantitative and qualitative aspects involved. Quantitatively, the agency is dependent upon the type cases with which it is concerned, the specific demands made, and the actual number of potential clients within the State who need the service. Further, there is the qualitative element in the work which is of fundamental importance in the actual achievement of the rehabilitation goal, and, which can be measured only in retrospective review of the continued satisfactory adjustment of the rehabilitated worker.

The case survey of the Virginia Rehabilitation Service which is reported here includes an intensive review of a completely random sample of 216 cases from the closed files for the year 1940-41 and 257 cases from the 1947-48 files. A supplementary study of the completed and closed cases from the files of the new Woodrow Wilson Rehabilitation Center also will be reviewed later.

The fiscal year from July 1940 to June 1941 was selected because it was prior to the World War II period of abnormal population changes in the State and of unrealistic vocational opportunity and employment conditions. Also, it is believed that 1940-41 reflects both an average twelve months and one which occurs during the operation of the Rehabilitation Service under the provisions of the original Vocational Rehabilitation Act and before the benefits were expanded and liberalized. In contrast, the second sampling for 1947-48 occurs as long as possible after the end of the war and four years after the initiation of the provisions of the Barden-LaFollette amendments.

In the first group of 216 closures, there were 59 which were considered unsatisfactory in that a rehabilitation program was not accomplished.<sup>1</sup> The 1947-48 group included 103 unsatisfactory closures and 154 rehabilitated individuals. The unsatisfactory closures will be discussed separately later.

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<sup>1</sup> The failure to accomplish a specific plan is designated as a failure, or unsatisfactory closure, by the Rehabilitation Service, and this distinction is the criterion followed here.

In order to make the data accumulated more manageable, both groups of cases were divided into five disability categories<sup>2</sup> and each case was reclassified in a specific disability group. In 1940-41 there was a disability distribution in three groups,--impaired mobility and loss of limbs, sensory defects, and chronic physical defects, but it was not until after the passage of the Barden-LaFollette Act in 1943 that record is found of any significant work with those whose disabilities fall in the categories of: phycho-neurological, impermanent physical, or in that less well defined miscellaneous group. Throughout the study the preponderance of cases of any one handicap was found in the impaired mobility cases (112 in 1940 and 59 in 1947), with the second highest number for sensory defects (25 in 1940 and 27 in 1947). Impermanent physical disabilities made their first appearance and ranked second in the 1947 closures with 31 cases.

There was a consistent trend toward higher salaries following rehabilitation throughout the study, and by careful computations it was found that the increases were meaningful as rehabilitatively significant

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<sup>2</sup> The disability categories and the specific types of handicap included are:  
(1) Psychological-neurological (neuroses, epilepsy, "nerves" stuttering, etc.)  
(2) Impaired mobility and loss of limbs (amputations, club feet, paralyzed arms and legs)  
(3) Sensory defects (impaired vision, deafness, etc.)  
(4) Impermanent physical defects (non-incapacitating as hernias, fistulas, etc.)  
(5) Chronic physical defects (partially incapacitating as arthritis, cardics, etc.)  
(6) Miscellaneous defects (impaired lifting ability, spinal curvatures, etc.)

in the majority of cases. In those instances where the critical ratio was found to be greater than 3.0 it is proved that the salary increases were not due to chance, and this was significantly true for both years studied in the impaired mobility cases and in the findings with impermanent physical handicaps, with psycho-neurological disorders in 1947-48, and with the sensory defects in 1940-41. (See Table III - page 22)

Since the critical ratio is not significant at the 1% level and the results, therefore, may be due to chance factors, the findings in several categories cannot be considered conclusive. However, the mean salaries for these groups following rehabilitation show equally consistent increases over the incomes prior to vocational readjustment with those found in the disability groups discussed above. These less indicative findings are revealed in only two groups, - the 1947 sensory defective group (C. R. 2.04) and the 1940 chronic physical ailments (C. R. 2.34).

In only one category does the critical ratio drop to a point which denies any claim to substantiating the economic value of rehabilitation and that is in the miscellaneous group of disabilities. Since there is no comparative study for this group in the earlier year and an actual increase in salary does exist, it would be difficult to deduce a finite conclusion from this one sampling.

However, since the basic goal of each rehabilitation plan is vocational adjustment and economic self-sufficiency, the result of this salary study in Virginia will justify the value of the program economically.

The 1947 annual report of the National Office of Vocational Rehabilitation gives added strength to this conclusion when it states that



TABLE III

Salary changes prior to and after Rehabilitation  
(1940-41 and 1947-48)

DISABILITY GROUPS	NO. CASES	AVERAGE SALARIES (ANNUAL)		CRITICAL RATIOS
		Prior to Rehab.	After rehabilitation	
1. <u>Sensory defects</u>				
1940-41	25	\$ 320.00	\$ 952.00	5.69
1947-48	27	1072.00	1431.48	2.04
2. <u>Mobility defects</u>				
1940-41	112	259.73	585.35	4.97
1947-48	59	950.25	1603.39	3.02
3. <u>Chronic physical</u>				
1940-41	11	631.88	959.09	2.34
1947-48	19	519.73	1313.15	3.1
4. <u>Impermanent physical</u>				
1940-41	0	None	None	
1947-48	31	852.40	1140.32	5.1
5. <u>Psycho-neurological</u>				
1940-41	1	None	600.00	
1947-48	10	419.50	1470.00	6.4
6. <u>Miscellaneous</u>				
1940-41	8	None	1243.75	
1947-48	8	1198.74	1874.99	1.0

during the report year "the earnings of the rehabilitated men and women increased approximately 400 percent from about \$14,000,000 before rehabilitation to an estimated annual rate of \$68,000,000 during the first year after rehabilitation, . . . and as a result of the greater earnings of these workers, the annual earned income of the nation increased about \$54,000,000."<sup>5</sup>

The second phase of this study is concerned with the training provisions of the reeducation program and the relationship between length of training and wage changes.

For the two years studied there were found to be 116 training cases for 1940-41 and 40 closures involving training for 1947-48. This means that 53.7% of the cases studied in 1940 entered training programs with only 15.5% trained in 1947. The sharp decrease in training cases may be explained in part, at least, by the fact that the services rendered clients have become more varied, and there are substantial increases on both the state and national levels in the numbers receiving medical and surgical care and hospitalization. Also, the number of persons who requested employment aid and simple adjustive assistance has continued to increase, reflecting this trend towards meeting all levels of need from the simplest request to the most difficult demands.

Prior to 1943 the training facilities were the most important single feature of the rehabilitation program, which was primarily an educational service, but the expanded facilities now meet more needs of

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<sup>5</sup>Annual Report Federal Security Agency, Section Seven: Office of Vocational Rehabilitation, Fiscal Year 1947, p. 589.

more people and there is less concentration in any one field of rehabilitation activity.

The distribution of kinds of training for the two years studied reveals an interesting change in emphasis:

<u>TYPE OF TRAINING</u>	1940-41 (116 cases)	1947-48 (40 cases)
1. College	19	9
2. Vocational	32	16
3. Business College	35	9
4. On-the-job	30	6

Present figures are inconclusive as to the cause of this trend, and further study is needed.

In order to determine the relationship between wage changes and the number of months of training for the total number of training cases in each year studied, a Pearson product-moment correlation was employed with the following results:

1940-41	correlation of	.39
1947-48	correlation of	.51

While the number of persons trained (116) was greater in 1940 the correlation between time in training and the wage increase (.39) is somewhat low. However, the correlation is statistically significant at the 1% level and does show a positive relationship between training and wages which is greater than chance.

The correlation of income and length of training for rehabilitants in 1947-48 is of greater magnitude (.51) although fewer cases (40) were included. This correlation is also statistically significant at the 1% level and shows decidedly more influence of the length of training on wage change than in the earlier year. This may be some indication of in-

creasingly effective guidance and vocational goal planning based upon more exacting study of the individual to be trained.

In an effort to determine the effectiveness of the Rehabilitation Service in Virginia in its actual coverage of the entire State and of the total population, such factors as age range, sex, color, and geographical distribution will serve to show the apportionment of rehabilitation assistance throughout the State.

For the two years upon which this study is based, it was found that there was an age range from 16 years to 75 years in both and a mean age of 26.6 in 1940 and of 29.4 in 1947. There is a wider distribution of cases through all age levels in the later group, which does show a favorable distribution trend. (See Appendix, page 51 for age distribution graph) Both in Virginia and on the national level approximately 50% of the rehabilitants were between 15 (16 in Virginia) and 30 years of age in the 1940 survey, but only 26% of the 1947 clients in Virginia were in that age bracket. This shows a growing trend toward maintaining the employability of older workers which reflects a general employment trend that has continued since the end of World War II.

Of the two samplings here reported, it was found that 78% of the closures in 1940 were men, but this number dropped to 57% in 1947. Again there is evidence of more widespread coverage of all types of persons.

In the total group in 1940 there were 69% white and 11% Negro rehabilitants, and in 1947 again there is an indication of better rehabilitation service coverage with 72% of the closures white and 25% Negro. The national statistics for 1947 show a ratio of 86% white and 15% Negro (and

1% other foreign groups).

Another percentage increase which has paralleled the expansion of Rehabilitation Service facilities is that of the number of women rehabilitated. In 1940, 21% of the closure cases were women, while in 1947 this percentage had climbed to 32%. (See Race and Sex Distribution, Appendix, page 52)

In a further effort to discover the comprehensiveness of this reeducation service, the actual distribution of cases throughout the State was reviewed. A division of the counties in Virginia was arbitrarily made for convenience in statistically tabulating the case sources, and it was found that all five geographical areas of the State were represented in the entire study, although 36% of the cases in 1940 were from Southeastern Virginia and 33% from the Southwestern section with a drop to only 8% for the South Central portion of the State. However, in 1947 there was a more even distribution with the exception of the Northeastern State in which the case load dropped from 9% in 1940 to 4%. A decrease in the percentage of cases in the Southwest is not explained, but it still maintains a fair representation in the total distribution. (See Bar Diagram of geographical distribution, Appendix, page 53)

Although the Rehabilitation Service in Virginia has made progressive steps toward fuller utilization of mental, vocational, and interest tests, the practice has not yet become general and a matter of routine policy, and such data for the years studied was too infrequently recorded to be of value.

From the standpoint of education there is a wide divergency in levels of academic achievement, but it is interesting to note that in 1947-48 there is more nearly a normal curve of distribution in the rehabilitants' educational background, while in 1940-41 there is an atypically higher trend in education reflecting a somewhat higher socio-economic level for this group of rehabilitation clients. This is explained by the many restrictions and limitations of the service, which condition has been changed through the liberalized policies and the more adequate population coverage. It has been noted previously that training plans were more numerous in 1940 than in 1947, and all levels of training both academic and vocational had a higher percentage of student rehabilitation clients than in the later year. (See Bar diagram of plans, Appendix, page 54)

Since the unsatisfactory closures did not afford adequate information to permit their being treated with the rest of the data, these limited findings are reviewed separately here.

The distribution of disabilities is as follows:

UNSATISFACTORY CLOSURES

<u>DISABILITIES</u>	<u>1940-41</u>	<u>1947-48</u>
Psycho-neurological	6	6
Impaired mobility	54	39
Sensory defects	8	11
Impermanent physical	0	6
Chronic physical	8	26
Misc. disabilities	3	5
Totals	59	103

It is apparent that the disability distribution parallels that for satis-

factory closures, and the majority of the causes for incomplete service by rehabilitation are self-explanatory, including: moving out of the area, failure to establish eligibility for service, infeasibility for rehabilitation of any kind, and, as has been previously explained, marriage, prior to the amendment of the Rehabilitation Act, constituted automatic ineligibility for women and this affected the 1940-41 closures. Also, this group included those whose training was postponed because of physical necessity (i.e. reactivated tuberculosis, etc.), the death of several clients, and a small percentage of those whose lack of cooperation constituted infeasibility for all practical purposes.

The group which applied for rehabilitation service and then decided to continue in their same work or who entered other self-obtained employment present the only real question of possible dissipated rehabilitation opportunity. It is true that the unsatisfactory closures appear at a cursory glance to be a seriously high proportion of the total samplings, 27% of the closures in 1940-41 and 40% of the 1947-48 group, but, when the inevitable deletions are made, the unsatisfactory cases remaining comprise 10% of the 1940 group studied and 12% of those in 1947.

Since data on the ultimate adjustment of these clients is lacking, and since there is a question as to whether rehabilitation service actually was needed, it would appear that a follow-up in such cases within a reasonable length of time is indicated before an absolute case closure is made.

Before concluding this report on the statistical study of rehabilitation closures a brief account of the findings at the Woodrow Wilson Re-

habilitation Center should be included.

At the time this study was made in March 1949, there had been only sixteen case closures at the Center in which training was involved. (Those clients who had been patents there for physio-therapy and other treatment were not included.) Among the completed cases, four cases, or 25% of the total number, were not recorded as satisfactory. This percentage seems particularly high, despite the severe handicaps represented, because of the more comprehensive counseling and guidance and some psychological testing in the Center as well as training and therapy provisions.

Because the Center is so new and is still in a developmental stage, a critical study of either procedures or results is impossible now, but a discussion of the potential value of this rehabilitation service will be discussed further in a later chapter.

Trends toward a closer correlation between services rendered and economic benefits, and toward expanding and increasingly comprehensive facilities within the Vocational Rehabilitation Service are indicated by the findings from this study. A recognition of the need for psychological testing and the beginning of wider use of such vocational guidance tools is noted within certain areas at least. In fact, the statistical data and clinical records seem to substantiate the belief that constructive quantitative and qualitative developments in the Service are being effected.



### III

#### A CRITICAL EVALUATION OF METHODS

The goal of the Rehabilitation Service and some of its achievements have been considered, but the adequacy with which the program is operated and of the methods employed were not considered in specific detail.

The actual steps in the process of rehabilitation need not be repeated, but the methods employed are briefed as of sufficient importance to have pertinence here.

Finding those who need service is the fundamental factor in this voluntarily sought program, and the referral sources are varied and numerous, including health agencies of all kinds both public and private, employment services, compensation commissions, welfare organizations and clinics, clubs and interested individuals. Underlying this widespread coverage of contacts is the supervisor's community relations, through which he must cement his contacts with those with whom a working reciprocity must be maintained.

"There are at least 1,500,000 men and women in the United

States today who have physical or mental handicaps which interfere with their most suitable employment. (This figure does not include service disabled veterans.) More than 250,000 persons become so disabled each year that they need rehabilitation services."<sup>1</sup> Of this number, it can be safely estimated that there are over 30,000 persons in Virginia who are permanently physically impaired with an annual increment of some 2,400,<sup>2</sup> Only 26,928 had been reached by the Rehabilitation Service in 1948 with a backlog of 1,750 known cases not yet served,<sup>3</sup> and the number continues to increase. These figures give conclusive proof that only the most thorough approach and the most realistic evaluation of feasibility is sound policy if the necessary number are to be aided, and reached in time to salvage their usefulness both to the individual and to society.

Selection methods assume added importance in view of these facts in order that all who may profit by the service may be included and those who can not be benefited will be eliminated in the beginning.

The basic medical report received on each applicant affords the diagnosis and recommendations which establish: first, the existence

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<sup>1</sup>Annual Report. Federal Security Agency. op. cit. p. 591

<sup>2</sup>Rehabilitation Bulletin. Reprint from Bulletin of State Board of Education, Vol. XXIV, Number 2, August 1941. p. 55. (It was estimated that there were 24,000 persons permanently disabled in Virginia in 1941 and now it is considered that "over 30,000" is a conservative estimate.)

<sup>3</sup>Annual Report of Virginia Office of Vocational Rehabilitation, 1947-48. p. 2.

of vocational disability; second, the degree of disability; and third, the prognosis both for physical improvement and for future employability. This information is consistently secured and utilized, but the parallel selective investigation, which seems equally desirable, lacks a consistent thoroughness with every case.

In practice, the necessary personal history is not infrequently only a subjective report by the applicant during an initial interview, and previous employment and reputational background is known as reported by the applicant. This seems an important need, and, for practical purposes of predicting rehabilitation success, should not be neglected. Self-support must be a client goal as well as that of the supervisor.

Following the acceptance of an individual for rehabilitation, the Service immediately begins one of its most effective phases of rehabilitation. If any type of physical restoration is needed, it is begun without undue delay, and apparently no effort or necessary expense is spared in obtaining general medical, surgical, or psychiatric treatment, therapy, hospitalization and prosthetic appliances. Every effort is made to restore as great physical and mental functioning as possible, and, in order to accomplish this, the best resources in the community or elsewhere are promptly utilized. In only seven cases of the over 500 analyzed was there evidence of a supervisor's delay in the physical restoration program, and these were found in areas involving distance and transportation difficulties and excessive case loads.

In conjunction with physical restoration and all other phases of rehabilitation guidance and counseling is the most continuous service

given each client, for it begins with the first interview and continues throughout the entire rehabilitation program.

During this entire study there was never any evidence found of disinterested neglect of a counselee by his supervisor. On the contrary, the ideas and expressed interests of the client at times were adhered to so closely that questionable vocational plans resulted. Throughout this case study both in 1940 and in 1947 there was an obvious inclination on the part of the counseling supervisor to establish a plan consistent with the applicant's verbalized, if sometimes inadequately supported, interests. Such keen concern for the client and his aspirations, and a zealous earnestness in his desire that the counselee realize his self-determined goal assist the supervisor in establishing rapport with his client and in encouraging him. Therefore, if a questionable plan is sometimes made, it is a mistake of too great effort and not too little.

It was observed, also, that in several instances specific types of disabilities were found rather consistently in certain types of employment. For example, arrested tuberculars or severe leg disabilities were frequently found with barbering as a vocational plan; typists and stenographers were drawn repeatedly from the ranks of orthopedic handicaps. This may represent a consistently realistic matching of men, skill, and opportunity, but certain delays between training and employment, or between training and employment for which the training was completed, give rise to the question of whether or not there is actually sufficient use of occupational information and job outlook data to afford the counselee a sound basis for occupational choice. To guide a client's thinking

away from the closed-door or "dead end" job is not counselor dominance; instead, it affords guided insight to the serious and sincere counselee. To the immature or less realistic rehabilitation client, this type of guidance is an even greater essential.

A third factor in considering effective counseling and guidance is the need for planned and consistent use of psychological testing. This counseling tool offers additional help to both the counselor and to the counselee in clarifying certain abilities and in the added information provided about mental capacity, interests, aptitudes and personality. Both test results and test behavior would be valuable in considering the possible plans for an optimum adjustment for the handicapped individual, since the total individual must be rehabilitated and not just the disability.

It is true that there are a number of test results in the case files, but there are very few actual test reports with the full significance of the testing results enumerated. Also, there are several trends in the use of tests during the periods studied which seem indicative of their pattern of use. During the 1940-41 period there were test records for only 27 cases in a possible 216, and of these, 20 were Stanford Achievement tests, and there were 3 Otis Tests of Mental Ability, 2 Pressley Senior Classification Tests and 6 Stenquest Tests of Mechanical Ability, and in no case was there any interpretation of the results. In only 3 cases were two tests given the same client. In the 1947-48 case sample of 257 individuals there was a record of 30 tests being administered to 26 persons and reports on 4 batteries given to four counselees. The

batteries, however, were administered by agencies who sent clinical reports with the applicants whom they referred. In addition to the tests listed above, this group included 5 Minnesota Vocabulary and Clerical tests, 4 Kuder Preference Records and one Strong Interest Inventory. It was noted with interest by this reviewer that only one test was given to one client in the unsatisfactory closure group of 103 cases.

As for the choice of tests used with even this small number, there appears to be little to support the selection of these tests. For adult clients, the general use of the Stanford Achievement Test seems a questionable selection, and, of course, the Otis Self Administering Test of Mental Ability is valid only for the more literate testees. Both the Kuder Preference and the Strong Vocational Interest Inventory give later interviewing aid and point out fields of investigation, but only five of these were given to the 1947 counselee sampling. The only manual or mechanical test mentioned, the Stenquist Assembly, does give a measure of mechanical manipulative ability, but, here again, for adult workers it is a totally inadequate picture since methods of work and related factors are pertinent and necessary information. For the handicapped adult additional problems of test reaction have greater significance, and personal compensations in the approach to a task may alter seriously the results for accurate interpretation on the basis of score alone.

Since counseling and guidance is such an important aspect of rehabilitation work, it seems highly advisable that the haphazard psychological testing in the field be replaced by a planned testing program organized for assisting in the construction of a realistic picture of the

rehabilitant's assets and liabilities. This would have value in order to utilize his abilities as fully as possible in the original plan and with greater assurance of ultimate success.

The Woodrow Wilson Center offers excellent facilities for establishing an adequate psychological clinic. However, this has not yet been set up, although testing is being done there. Of the 16 closures which were studied, fifteen cases had been tested. Fourteen had been given a Wechsler-Bellevue Intelligence Scale, and eight of these had received other tests. The results of these tests were used, but the full clinical value of the results had not been adequately utilized in setting up vocational plans. But, as has been mentioned before, the program's organization is not yet completed in the Center.

The actual training of rehabilitants is conducted according to policies established by the Federal Office of Vocational Rehabilitation in conformity with the amended Vocational Rehabilitation Act. These Federal standards are pertinent to the adequacy of the Rehabilitation Service, since they are so constructed that they give direction but do not restrict the program.

Since all training, both vocational and prevocational, is goal directed toward specific employment, it must conform to the vocational plan established. Whether it be in a trade or technical school, on-the-job, or in a college or university, it is always in an approved school or with a trainer who must meet certain defined standards. If it is deemed advisable, correspondence work is provided, and, tutorage can be supplied if necessary. In all cases the Rehabilitation Service Super-

visors give constant evidence of understanding effort in effecting needed training in whatever manner and wherever it is available that will best meet the rehabilitant's personal needs and yet achieve employability or will enhance his opportunities by greater skill.

Training fees or tuition expenses are paid from the Federal-State funds (and also maintenance, books, and transportation in cases of financial need); in this respect Rehabilitation is equivalent to an extended public school. All arrangements for the training program are made by the supervisor, and they are handled with prompt dispatch in a routinely efficient manner.

It is true that placement on a job at the conclusion of training is also the responsibility of the Service which has trained him for it, but the rehabilitated person now has become a qualified worker, and the community must share in this responsibility for his becoming economically independent. The Virginia State Employment Service, through its special placement service for the physically limited, now becomes an active participant in completing the rehabilitation adjustment. However, even with this aid in obtaining suitable work, the Rehabilitation Supervisor does not close his case until he feels fully justified in designating it as a satisfactory closure.

The methods of achieving the employment goal are, for the most part, exhaustively thorough, and the results measured by employed, self-sufficient and happy men and women give adequate proof of their success.

In Virginia, the financial returns on the rehabilitation



investment have shown a steady improvement. The national average cost for each rehabilitation is \$400.00,<sup>4</sup> and during both years of this study the Virginia rehabilitants have shown a satisfactory salary return on the investments made.

In 1940-41 the 327 rehabilitated workers "were employed at wages aggregating \$317,410 for their first year of work following rehabilitation",<sup>5</sup> which was an average income of \$970.67 per person. In 1947-48 the aggregate salary for the 982 who completed rehabilitation was \$1,473,646,<sup>6</sup> and this was an average of \$1,608.60 per person. The national income average per person in 1947 was \$1,768.00. This ratio seems quite satisfactory, and adequately justifies the mean expenditure of \$400.00 per case. When it is realized that the cost of maintaining an individual as a public charge is between \$300.00 and \$500.00 paid annually,<sup>7</sup> this single expenditure of \$400.00 is significantly reasonable.

Although the basic policies, methods, and procedures are determined on a national level and effective in every state, there is a staff enthusiasm within the Virginia Rehabilitation Service which extends beyond the duties exacted by legal provisions. Both State and field supervisors share a genuine comradeship, and the in-service

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<sup>4</sup>Ibid., p. 589.

<sup>5</sup>Bulletin. Annual Report of the Superintendent of Public Instruction of Virginia, Vol. XXIV, Number 3. September 1941. p. 113.

<sup>6</sup>Annual Report of Virginia Rehabilitation Service. op. cit. p. 3.

<sup>7</sup>By direct communication from Virginia Rehabilitation Service State Office.

training and development has its greatest impetus in a staff ever alert to its improvement.

In an effort to perpetuate its personnel strength, certain exacting qualifications have been established and adhered to in expanding the program. Prerequisites for professional staff positions are a Bachelor's degree and a minimum of three years of experience in work which can contribute to the rehabilitation service. At the present time 50% of the staff have Master's degrees representing additional professional training, and this agency has an outstanding record of stability in its personnel prior to World War II. Since the end of the war, its rapid expansion has brought into the Service a number of well qualified new field personnel, but even when faced with a critical staff need, vacancies have been allowed to continue for several months until a qualified person could be secured. This policy is endorsed by the entire staff, even when its practice necessitates a temporarily increased case load for men already carrying full responsibilities.

This does not overlook the effect of personnel shortages occasioned by such delays, since it cannot be as effective in the areas where the staff is so curtailed. Also, a real economic problem underlies these delays because of the salary limitations now existent for the personal qualifications and professional training demanded to meet the Virginia standards.

Despite the many facets in each client's program, the supervisors are able to reach a large number of disabled persons. The active

case load for a supervisor required by the Federal office is from 125 to 150 rehabilitants in a rural state such as Virginia, and the average case load in the State now is 154 with an additional 103 under active investigation prior to rehabilitation. In addition to this work, numerous related community interests must be maintained.

There is an increasing realization within the Rehabilitation service of the essential importance of community participation and cooperation in order to reach those disabled persons needing readjustment assistance as well as to achieve sympathetic understanding on the part of business and industry and other agencies.

Prior to the more recent personnel increases, the limited number of supervisors made it necessary to limit publicity for the Service in Virginia, since it was unable to serve all of those who applied for help without long delays. However, with more adequate supervisory coverage of the State it is now possible to reach more people.

As a special service agency, it is realized that the Rehabilitation Service's greatest strength lies in its identity with its accomplishments. In order to achieve this, the press, radio, and personal contacts have been employed to acquaint the public with their rehabilitation program; to inform employers of the employability of rehabilitated men and women on a normal competitive basis with able-bodied workers, and to advise them of the aid Rehabilitation can give their own employees who become accident victims; and to know better and be known by all other agencies and community services with whom cooperation is so necessary.

Further, good public relations and the resulting better understanding they accomplish have proved one of the strongest factors in alleviating the mental set about the limited ability of those with handicaps. It is this recognized public attitude that constitutes the chief barrier to successful employment rehabilitation.

The 1946 report of the House Sub-Committee on Aid to the Physically Handicapped acknowledged this when it stated that,

"the agencies of the Federal Government administering services to the physically handicapped should devote a portion of their efforts to the removal of psychological and emotional barriers which exist in the public mind and hinder the friendly acceptance of physically handicapped people for their own worth."<sup>8</sup>

In the Virginia Rehabilitation Service the methods for achieving public information established by the Office of Vocational Rehabilitation have been utilized extensively on the local field levels. The motion picture "Comeback", which has been shown approximately 50 times in Virginia during the past two years, and the "David Felton, Counselor" series of radio human interest dramatizations which have been aired over 15 Virginia stations, and numerous displays and talks before civic clubs and agency meetings, -all have contributed to understanding.

Although this full program has been less effectively employed in some areas of the State than in others, it has been dramatically

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<sup>8</sup>Report of House Sub-Committee on Aid to the Physically Handicapped, October 1946. Superintendent of Documents. U. S. Government Printing Office, Washington, D. C.

successful where its value has been fully exploited. Moreover, it has been clearly proven that community cooperation and understanding lead naturally and directly into community leadership. Where effectively employed, good public relations have achieved a change in community attitude to one of greater acceptance of the rehabilitated worker and in which the community assumes an active role in accomplishing his economic adjustment into suitable work without restricted opportunity.

The rehabilitants themselves have further aided in attaining this attitudinal change by their work records which have been published, and which have gained for these workers and for all other handicapped potential employees the benefits of this change in social support. In a study made by the Federal Security Agency, one hundred employers gave the following evaluation of the dependability and work capacity of employed handicapped workers:<sup>9</sup>

ABSENTEEISM:	55%	reported	handicapped	lower than	able-bodied
	40%	"	"	same as	" "
	5%	"	"	higher than	" "
PRODUCTIVITY:	24%	reported	handicapped	higher than	able-bodied
	66%	"	"	same as	" "
	10%	"	"	lower than	" "
LABOR TURNOVER:	83%	reported	handicapped	lower than	able-bodied
	16%	"	"	same as	" "
	1%	"	"	higher than	" "
ACCIDENTS: (industrial)	57%	reported	handicapped	lower than	able-bodied
	41%	"	"	same as	" "
	2%	"	"	higher than	" "

<sup>9</sup>Hinshaw, David, Take Up Thy Bed and Walk, G. P. Putnam's Sons, p.187.

A positive identification of the physically impaired with the idea of normal social and economic participation through new psychological attitudes is perhaps the greatest contribution Rehabilitation has made.

However, these gains must not be mistaken for complete social acceptance of the handicapped, for this does not exist, although it is more common today than ever before. The disabled still are members of a minority group in much the same way as are various religious and racial segments of society, and he is subject to the discriminations and the insecurities and even prejudices which he is as powerless to control per se as are other minority members. Yet, his self-adaptation here again is his strongest defense as an involuntary member of his group, and this benefits him and his fellow disabled.

"To make employment an adjustive and integrating experience for every individual is the ultimate aim of mental hygiene in industry",<sup>10</sup> whatever his specific physical status, is a wholesome attitude growing in industry, and in large measure may be accredited to the untiring efforts of Rehabilitation Services. With this modern trend in industrial personnel practices, the handicapped is offered real opportunity to come into his own on the basis that "ability, not disability, counts".

In evaluating the rehabilitation process as a means of adjustment for the physically limited, it is evident that its chief significance lies in economic factors, in the mental attitudes and personality integra-

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<sup>10</sup>Shaffer, L. F. The Psychology of Adjustment. Houghton, Mifflin Co., New York, 1936, p.521.

tion, and in its responsibility for social unity and purposeful achievement. Once attained, these goals comprise the means of removing the handicap as far as constituting a mental or emotional maladjustment, and the limitation is relegated to its rightful status as physical incapacity only, and that lessened to an minimal a degree as possible.

The time factor is critically important in predicting the success of the retraining schedule has been mentioned previously, and is reiterated here. "One of the greatest problems in rehabilitation is that of motivation. — encouraging and convincing the disabled that they can rehabilitate themselves." <sup>11</sup> The sooner a plan is undertaken and the rehabilitant begins to work toward that goal of reintegration, the better are his chances for accomplishment. Successful reeducation is positively and consistently correlated with the time interval between the occurrence of the disability and the beginning of rehabilitation.

As "reconstructive medicine" rehabilitation has proved the only resource for restructuring the personality of the physically restricted individual which provides for normal adaptation and constructive mental health. When the adjustment is made, the handicapped man or woman is not merely one whom medical and surgical skill has saved from death, but instead, he is one whom rehabilitation has saved for life. Once again he has assumed his place in the activities of modern and competitive society and he is secure in his own self-sufficiency.

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<sup>11</sup>Davis, John Eisele. Principles and Practices of Rehabilitation. A. S. Barnes and Co., New York, 1943, p. 230.

#### IV

#### SUMMARY AND RECOMMENDATIONS

The preceding critical evaluation of the Vocational Rehabilitation Service in Virginia has sought to encompass all significant phases of the total service in an appraisal based upon intensive study of the development and operation of the state program and upon an analysis of a random sample of case histories.

It has been noted that during the period between 1940-41 and 1947-48, at which terminal years the sampling study was made, there has been rapid growth in both the number of professional workers and in the physical facilities. Accompanying these growths there was an expansion of the Rehabilitation Act provisions through legislative amendment. This vastly increased the extent of the rehabilitation services available but without restricting the necessary versatility of their application to the individual clients in the State.

Each phase of the rehabilitation process,--selection, guidance, restoration, training, placement and follow-up,--was studied in the light of methods used and vocational objectives accomplished. Of



parallel interest was the related study of the effects of the total service as a comprehensive readjustment through social and physical reconditioning and the achievement of mental health.

In the economic study of the rehabilitation process, a significant positive correlation was found between reeducation and restoration and increased annual incomes, and this was further expanded to include a valid positive relationship between the actual length of training and salary increases.

Circumstances under which training was given during the two years varied widely, and will afford some explanation for the trends taken. As was mentioned previously, the Rehabilitation program in 1940 was primarily that of an educational service, and the case records would indicate that plans were more directed toward a goal utilizing education than is true in the later year. The fact that there was a higher correlation between training and income increases for 1947-48 gives some substantiation to the belief that training now is planned more realistically on the basis of specific need for it.

The correlation of degree of success in the specific disability groups was studied, but no conclusive findings can be reported, since the actual success of training reflects many factors including suitability of plans, physical condition and degree of restoration, personal qualifications and interest. The fact that the lowest correlation was found in the miscellaneous group, which covers such a wide gamut of disability variations, is not an illogical outcome.

It was found that the professional workers in the Service contribute very real strength to the program, possessing to a high degree "the judgement to deal with the intangible as well as the tangible factors"<sup>1</sup> in readjustment. In obtaining employment adjustment in a high percentage of cases, and in assisting the client and his community toward wholesome psychological attitudes, there is positive evidence of the supervisor's achievement as well as that of the client.

It is inevitable that such a comprehensive program will have phases of activity which are less dynamic than are others, and this is true also with the Virginia Rehabilitation Service.

Several points of emphasis and of change are recommended as follows:

1. Selection of Applicants and Case Histories

The prompt selection of suitable rehabilitants on the basis of full information would give additional control over the case load by eliminating the infeasible applicants as quickly as possible. There is evidence of failure to utilize all sources of information prior to diagnosis, such as qualified evaluations of previous employment and personal reputational information. Greater emphasis in this area should prove helpful.

2. Vocational Plans

- a. Case reports indicate an inclination on the part of

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<sup>1</sup>Muhl, Anita M. "Fundamental Personality Traits in Tuberculous Women". Psychoanalytic Review. 10:380-430. October 1923. p. 393.

the counselors to establish plans according to the expressed interests of the client during the first interview, even when the interests are unsubstantiated.

b. Insufficient use of occupational information and job outlook data was noted, and this is needed to afford the counselee a sound basis for his choice of occupations.

### 3. Psychological Tests

The lack of an established testing program seems a serious handicap to a guidance and counseling service, and one is needed which will include tests of mental ability, mechanical aptitudes, vocational interests and personality appraisals, with other special tests available when needed. Not only would the test results be helpful to the counselors, but the clinical reports on test findings would be valuable both in the field and at the Center. The establishment of a psychological clinic at Woodrow Wilson would be a decided asset to the entire Service in the state.

As a new experiment, the development of the State operated Rehabilitation Center is being watched with interest throughout the country and has an opportunity to serve both Virginia and the nation. Therefore, this needed facility should not be omitted in making its program more complete.

### 4. Unsatisfactory Closures

Those who entered self-obtained employment (often because of the pressure of financial need) which seems to be uncongenial might profit by a later Rehabilitation Service follow-up within a reasonable

predetermined time limit.

#### 5. Adequate Staff

The maintenance of a staff of sufficient number is needed in order to curtail delay in processing cases and to facilitate prompter service. Also, an adequate salary scale commensurate with the high calibre of the present personnel and with the personal and professional qualification exacted in order to enter the Service would aid in solving this staffing problem.

#### 6. Public Relations

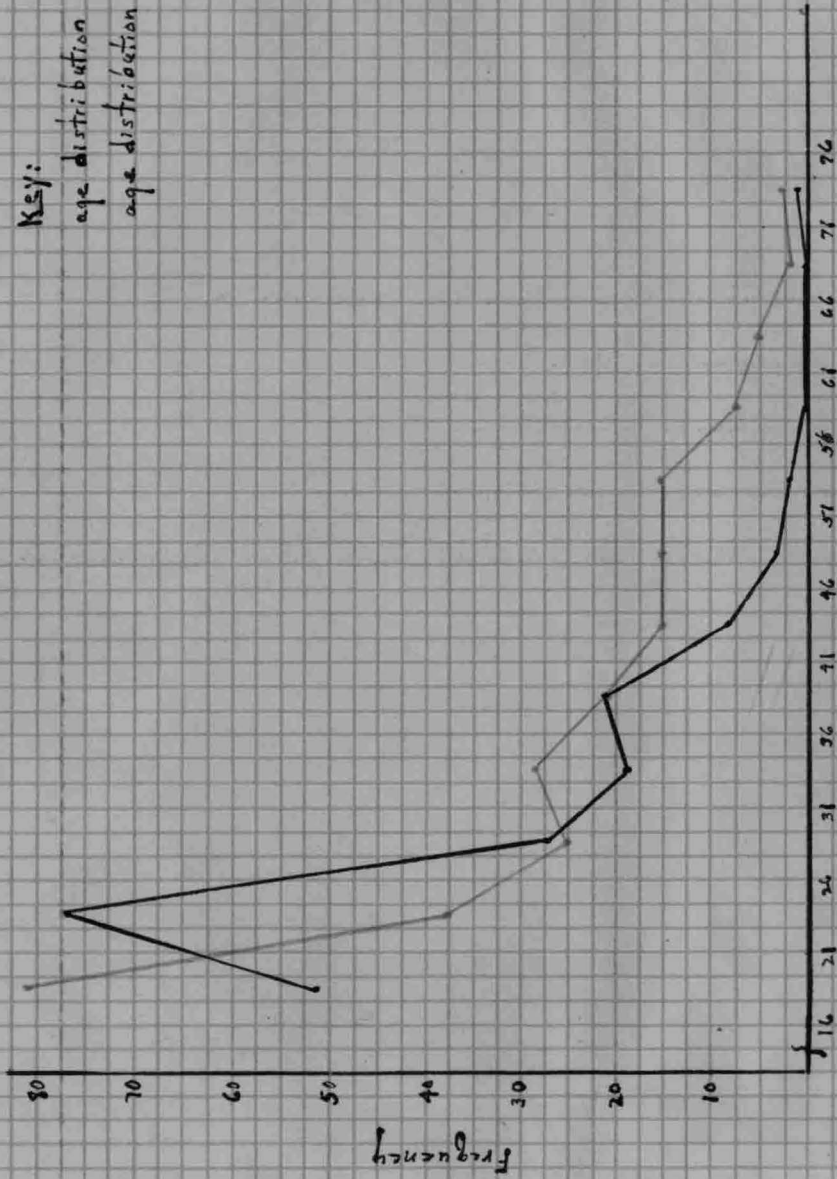
It is recommended that the public relations activities be expanded to include active informational service and community participation throughout the State with planning and unifying direction centralized in the State office. This would contribute further both to understanding the Service and to the leadership role of the staff in integrating the program in every local community.

In conclusion, this study has revealed a public service agency with organization well defined, methods designed for practical accomplishment, and results which are economically sound. The psychological results measured intangibly in the happily adjusted and productive men and women are the real evidence of the success of the Vocational Rehabilitation program in Virginia.

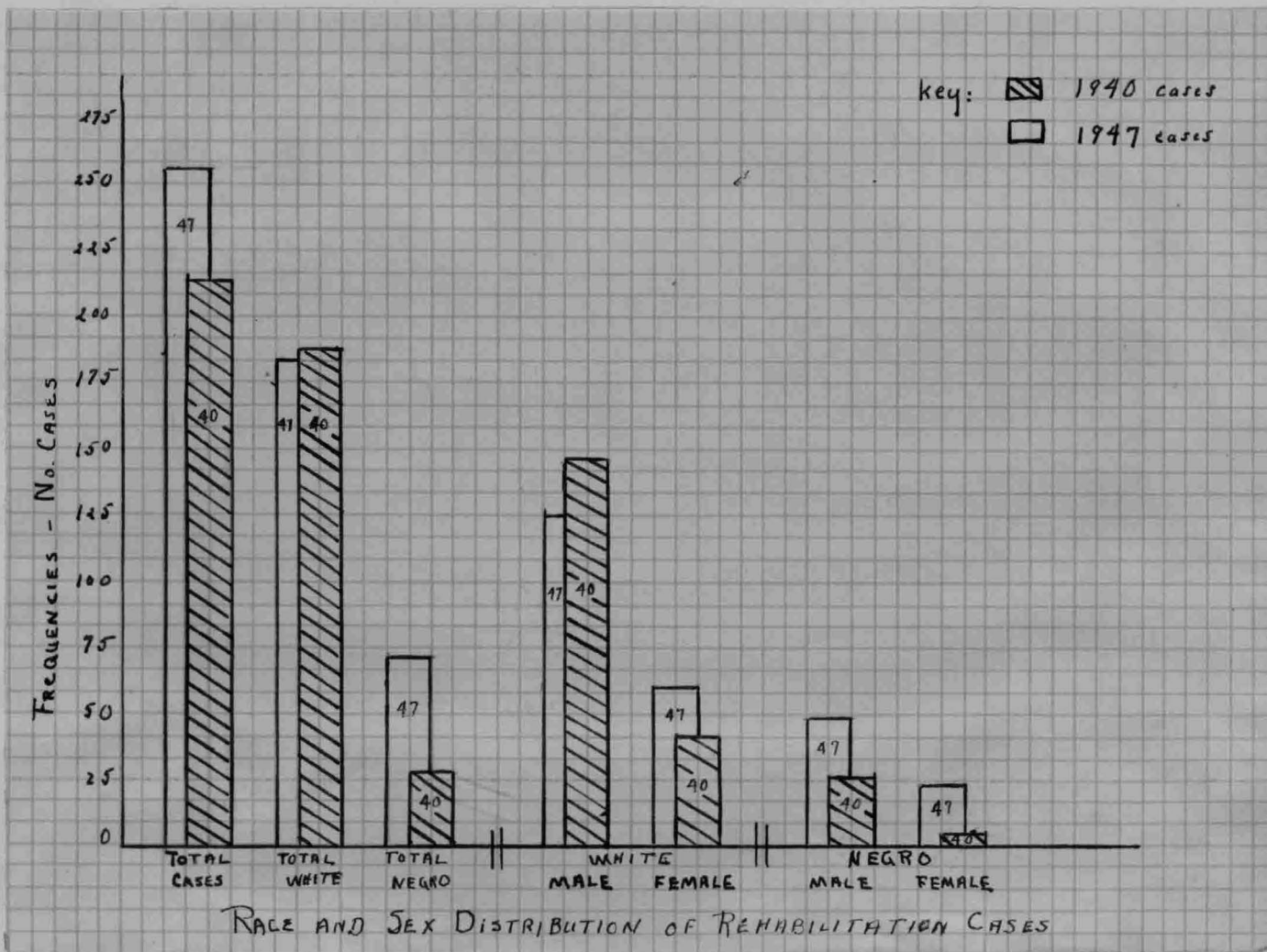
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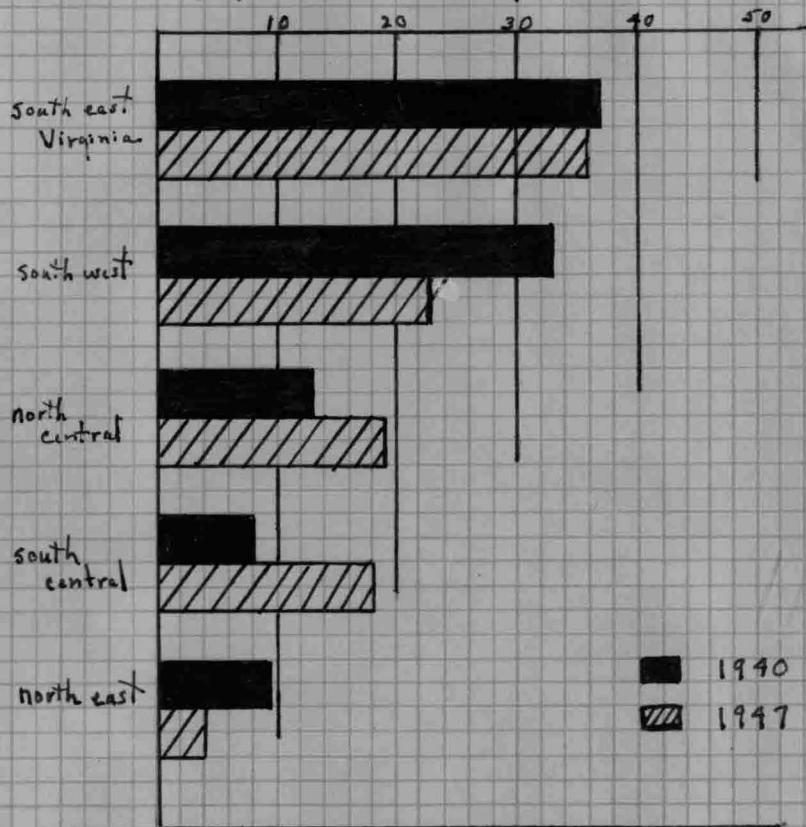
Key:  
 — age distribution 1940  
 — age distribution 1947



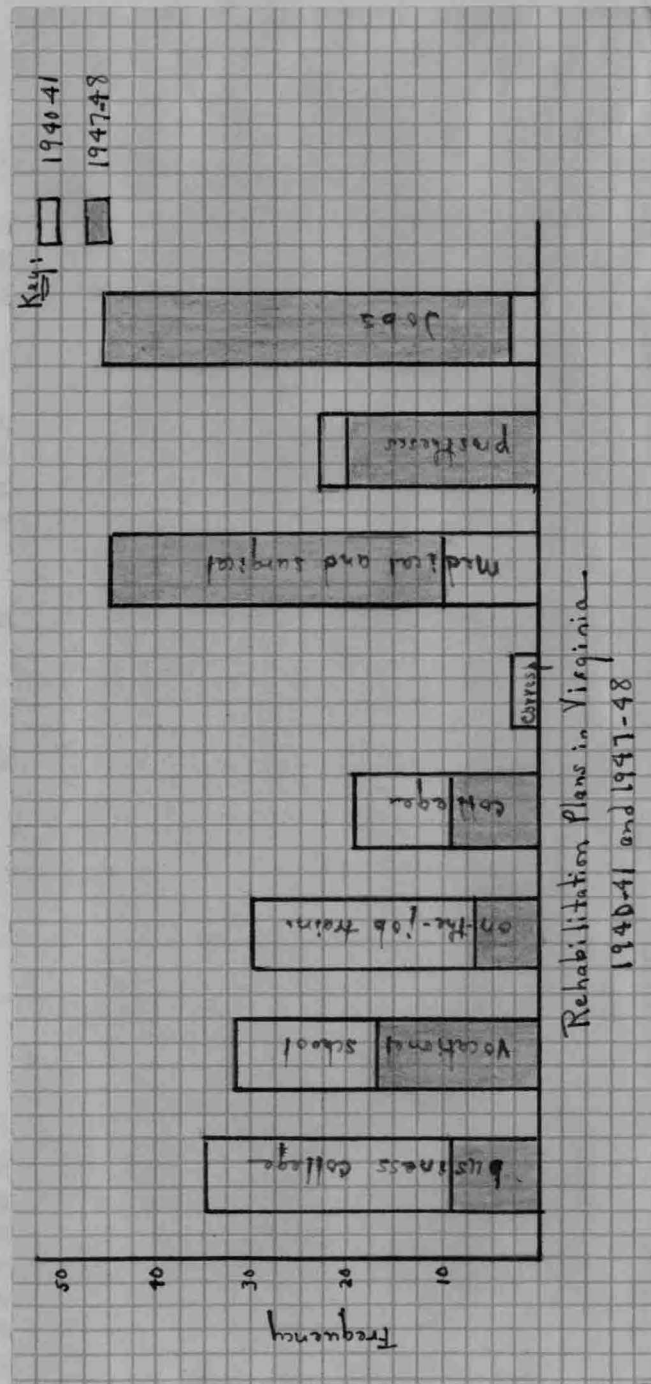
Ages  
 Distribution of Virginia Rehabilitants by Age  
 (1940 and 1947)



### Percentage of Geographical Distribution of Rehabilitation Cases







STATISTICS

The following data was employed in the preceding statistical computation:

1. Correlation (Pearson product-moment) of length of training and salary increases:

1940-41

sum xy = 3059  
sigma x = 1.67  
sigma y = 4.41  
number = 116

$$\text{sigma formula} = \sum \frac{x^2}{N} - \left( \frac{\sum x}{N} \right)^2$$

$$\text{correlation formula} = \frac{\sum xy - \left( \frac{\sum x}{N} \right) \left( \frac{\sum y}{N} \right)}{(\text{sigma } x) (\text{sigma } y)}$$

$$= .39$$

1947-48

sum xy = 1685  
sigma x = 3.06  
sigma y = 4.21  
number = 40  
correlation xy = .51  
(Pearson product-moment)

2. Critical ratio formula =  $\frac{D}{\text{sigma diff.}}$

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