



*RESEARCH MONOGRAPH 2 -- May 1962*

# Report on a Survey of Respiratory and Severe Post-Polios

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OF THE COLLEGE OF MEDICINE

OHIO STATE UNIVERSITY, COLUMBUS, OHIO



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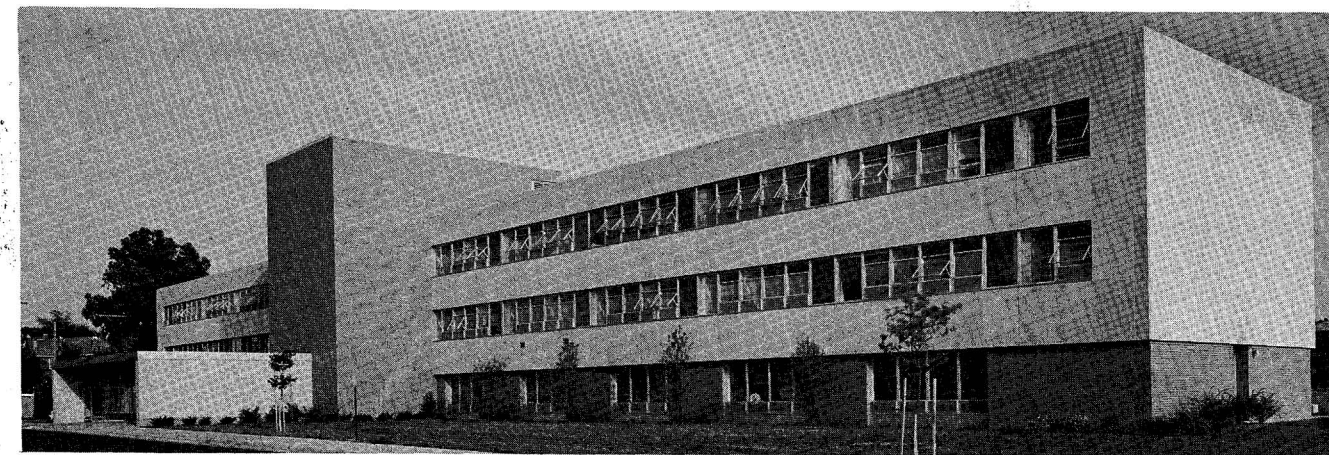
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NATIONAL FOUNDATION'S SUMMARY OF POLIO PATIENTS USING MAJOR  
RESPIRATORY AIDS AS OF JANUARY 1, 1959

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Alabama	11	Missouri	35
Alaska	0	Montana	5
Arizona	11	Nebraska	31
Arkansas	10	Nevada	2
California	353	New Hampshire	5
Colorado	29	New Jersey	15
Connecticut	19	New Mexico	6
Delaware	1	New York	116
District of Columbia	5	North Carolina	22
Florida	34	North Dakota	2
Georgia	17	Ohio	117
Hawaii	0	Oklahoma	22
Idaho	10	Oregon	26
Illinois	86	Pennsylvania	42
Indiana	39	Rhode Island	3
Iowa	26	South Carolina	4
Kansas	13	South Dakota	4
Kentucky	16	Tennessee	29
Louisiana	29	Texas	187
Maine	11	Utah	6
Maryland	16	Vermont	2
Massachusetts	65	Virginia	18
Michigan	108	Washington	23
Minnesota	56	West Virginia	16
Mississippi	11	Wisconsin	37
		Wyoming	8

Total 1,756

TABLE OF CONTENTS

	Page
INTRODUCTION	1
DEMOGRAPHIC AND FAMILY CHARACTERISTICS	3
Age	4
Sex and Race	4
Religion	5
Educational Levels	5
Marital Status	8
Number of Children	9
Parents' Occupation	11
Respondents' Places of Residence	12
MEDICAL CHARACTERISTICS	14
Lapse of Time Since Onset of Disability	14
Etiology of Disability	15
The Degree of Disability	15
a. Breathing Involvement	15
b. Extremity Involvement	16
Residual Capacities	17
a. Feeding and Dressing	17
b. Writing and Typing	19
c. Reaching	20
d. Transfer Activities	21
e. Ambulation	22
f. Other Activities	23
Possession and Use of Equipment	24
Need for Attendants	25
Medical Care: Availability and Use	26
ECONOMIC CHARACTERISTICS	28
Respondents' Earnings	28
Financial Benefits and Assistance	31
a. Amounts of Benefits and Assistance	31
b. Sources and Types of Benefits and Assistance	34
c. Purposes of Benefits and Assistance	36
d. Needs for Financial Assistance	37
Types of Services and Changes in Use	38
Adequacy of Services	40
Cost of Services	41



	Page
OCCUPATIONAL CHARACTERISTICS	42
Changes in Occupation after Onset	42
Occupation and Age	45
Employment and Education	46
Working Status and Severity of Disability	46
Occupation and Present Working Status	47
SUMMARY AND IMPLICATIONS	49
Demographic and Family Characteristics	49
Medical Characteristics	50
Economic Characteristics	52
Vocational Characteristics	53
Some Implications	55
APPENDIX	57
T.j.G. Census - Part I	58
T.j.G. Census - Part II	61

LIST OF TABLES

Table	Page
DEMOGRAPHIC AND FAMILY CHARACTERISTICS	
1 Number of Respondents by States of Residence	3
2 Age of Respondents by their Sex	4
3 Religion by Sex of Respondents	5
4 Present Educational Levels by Sex of Respondents	6
5 Education Before and After Paralysis	7
6 Pre-Paralysis Marital Status by Sex of Respondents	8
7 Present Marital Status by Sex of Respondents	9
8 Number of Children by Sex of Respondents	10
9 Parents' Occupations	11
10 Residence by Marital Status	12
MEDICAL CHARACTERISTICS	
11 Lapse of Time between Onset of Disability and Survey	14
12 The Degree of Dependence upon Breathing Aids	15
13 Involvement of Extremities	17
14 Involvement of Extremities and Capacity for Feeding	18
15 Involvement of Extremities and Capacity for Dressing	18
16 Involvement of Extremities and Capacity for Writing	19
17 Involvement of Extremities and Capacity for Typing	20
18 Involvement of Extremities and Capacity for Reaching beyond Lapboard Area	20
19 Involvement of Extremities and Number of Persons Required for Assistance in Transfer from Bed to Chair	21
20 Involvement of Extremities and Method of Transfer from Bed to Chair	22
21 Involvement of Extremities and Wheelchair Activities	23
22 Possession and Use of Equipment	24
23 Degree of Breathing Involvement, Arrangements and Distance for Emergency Treatments	26
ECONOMIC CHARACTERISTICS	
24 Average Monthly Earnings by Sex	28
25 Average Monthly Earnings by Present Working Status	29
26 Average Monthly Earnings by Present Educational Levels	30



Table	Page
27 Total Benefits and/or Assistance and the Average Monthly Earnings	32
28 Total Benefits and/or Assistance by Sex	33
29 Amounts of Benefits and/or Assistance by Sources	34
30 Sources of Benefits and Assistance by their Regularity	35
31 Purposes of Benefits or Assistance by their Purpose	36
32 Purposes of Benefits or Assistance by their Regularity	37
33 Needs for Financial Assistance	38
34 Types of Services and Changes in Use	39
35 Estimates of the Adequacy of the Services Obtained	40
36 Weekly Salaries Paid by Types of Service	41
<b>OCCUPATIONAL CHARACTERISTICS</b>	
37 Occupation Before Onset and at Present by Sex of Respondent	43
38 Changes in Occupation and Employment Status after Onset	44
39 Occupation Before Onset of Disability and at Present	45
40 Proportion Reporting Post-Onset Employment by their Educational Levels	46
41 Present Occupation by Working Status	48

## INTRODUCTION

This report presents the findings of a survey that was initiated by Editors of the TOOMEY J GAZETTE: Mrs. (L. A.) Sue Williams and Mrs. (J. S.) Gini Lauri. The T.j.G. was started in the form of a news letter as a means of communication among severely disabled polio victims. It was named after the late Dr. John A. Toomey of the Cleveland City Hospital in recognition of his service to polio patients. Presently, the GAZETTE has grown to a sizable periodical with a circulation nearing five thousand. Among those receiving it are about two thousand people with severe paralytic residuals, mostly of poliomyelitis.

Concerned about the lack of economic support in the amounts needed to adequately care for people with long-term post-polio disabilities, Editors of the T.j.G. developed this survey in order to obtain specific information from their readers. Two-part questionnaires were distributed to over 1400 people. As a result of sending several waves of these questionnaires, adequate responses were received from 806 people, a return rate of about 55 per cent. Although the questionnaires were not systematically planned, they include a considerable amount of useful information as shown in the Appendix.

Others are similarly concerned about the problems confronting post-polios, and coordination of their efforts has been undertaken by the Office of Vocational Rehabilitation. In order to estimate the problems, it was recommended that findings of the T.j.G. survey be analyzed and



a report prepared for the use of those concerned. The Social Research section of The Ohio Rehabilitation Center was asked to carry out these operations, which were in part supported financially by the OVR.

Presentation of data is organized under four main headings: Demographic and Family Characteristics, Medical Characteristics, Economic Characteristics and Vocational Characteristics. Certain limitations of the data need to be pointed out, especially the high rate of "no response" to some questions and the inconsistency in answering others. In general, however, the data presented should be revealing of the characteristics and conditions of the post-polio severely disabled.

#### DEMOGRAPHIC AND FAMILY CHARACTERISTICS

As mentioned before, the survey includes people from most parts of the country. Table 1 shows that only five states are not represented; namely, Alaska, Delaware, Hawaii, New Hampshire and Vermont. This can be attributed to the fact that these states had the smallest numbers of people for inclusion in the survey as indicated by the T.j.G mailing list and the National Foundation's 1959 records of polios depending upon breathing aids.

Table 1  
Number of Respondents by States of Residence

State	No. of Respondents	State	No. of Respondents	State	No. of Respondents	State	No. of Respondents
Ala.	4	Ind.	27	Neb.	14	S.C.	4
Alas.	0	Iowa	14	Nevada	2	S.D.	1
Ariz.	8	Kansas	6	N.H.	0	Tenn.	9
Ark.	1	Ky.	14	N.J.	9	Texas	38
Cal.	156	La.	8	N.M.	4	Utah	4
Col.	16	Maine	3	N.Y.	57	Ver.	0
Con.	12	Ma.	12	N.C.	13	Va.	12
Del.	0	Mass.	16	N.D.	2	Wash.	27
Fla.	23	Mich.	42	Ohio	86	W.V.	4
Ga.	11	Minn.	19	Okla.	10	Wis.	17
Hawaii	0	Miss.	3	Oregon	18	Wyo.	3
Idaho	5	Mo.	12	Pa.	21	D. of C.	3
Ill.	30	Mon.	2	R.I.	2	Army P.O.	2

### Age

The youth of respondents is evident in Table 2. About 75% of the men and 73% of the women are in their twenties and thirties. Ages for all respondents range from 9 to 59 years with a median of 36 for men and 33 for women.

Table 2  
Age of Respondents by Their Sex

Age	Male		Female		Total	
	No.	%	No.	%	No.	%
Less than 15 years	14	4.0	17	3.8	31	3.8
15 - 19 years	18	5.1	22	4.9	40	5.0
20 - 24 years	57	16.1	63	13.9	120	14.9
25 - 29 years	62	17.6	76	16.8	138	17.1
30 - 34 years	79	22.4	91	20.1	170	21.1
35 - 39 years	64	18.1	100	22.1	164	20.3
40 - 44 years	32	9.1	46	10.1	78	9.7
45 - 49 years	11	3.1	18	4.0	29	3.6
50 years and over	10	2.8	16	3.5	26	3.2
Not indicated	6	1.7	4	0.9	10	1.2
Total	353	100.0	453	100.1	806	99.9

### Sex and Race

As indicated in Table 2, women respondents exceed men by about one hundred. However, this does not necessarily reflect a higher proportion of females in the population surveyed. It can be simply the result of lower rates of response to the questionnaires among men.

It should be noted also that only ten people, five men and five women, identified themselves as non-whites. Racial background was not indicated by eleven respondents.

### Religion

Only eleven people did not indicate their religious preferences on the questionnaires. A proportionate distribution of males and females among religions can be seen in Table 3, with the great majority of both sexes being Protestants.

Table 3  
Religion by Sex of Respondents

Religion	Male		Female		Total	
	No.	%	No.	%	No.	%
None	21	2.6	21	2.6	42	5.2
Protestant	252	31.2	328	40.7	580	71.9
Catholic	60	7.4	88	10.9	148	18.3
Jewish	12	1.5	13	1.6	25	3.1
Not indicated	8	1.0	3	0.4	11	1.4

### Educational Levels

The structure of the questionnaires did not allow for a distinction in responses between those who have not received any formal education and those who simply did not indicate their present educational levels. There were 485 respondents for whom present levels of education



were not indicated. However, all but 29 have indicated their pre-paralysis achievements.

Table 4 shows the high educational levels of respondents. About 74% completed high school with 40% continuing for partial or complete college or graduate work before paralysis. It can be noticed also that the proportion of men continuing education beyond high school is larger than that for women, especially for those completing their graduate training.

Table 4

Present Educational Levels by Sex of Respondents

Educational Levels	Male		Female		Total	
	No.	%	No.	%	No.	%
	Partial grade school	3	0.8	8	1.8	11
Complete grade school	16	4.5	19	4.2	35	4.3
Partial high school	14	4.0	22	4.9	36	4.5
Complete high school	100	28.3	173	38.2	273	33.8
Partial college	56	15.9	59	13.0	115	14.3
Complete college	76	21.5	89	19.6	165	20.5
Partial graduate work	5	1.4	4	0.9	9	1.1
Complete graduate work	24	6.8	7	1.5	31	3.8
Other education	46	13.0	56	12.4	102	12.6
None indicated	13	3.7	16	3.5	29	3.6
<b>Total</b>	<b>353</b>	<b>99.9</b>	<b>453</b>	<b>100.0</b>	<b>806</b>	<b>99.9</b>

Post-paralysis educational achievements of respondents are presented in Table 5, which shows a comparison of their educational status

before and after disability. About 40% pursued higher levels of education after paralysis. The most frequently mentioned means of continuing education was tutoring, which was indicated by 59 respondents. Means following in order of frequency of mention are: correspondence as indicated by 53 respondents, home study by 35, regular attendance by 23 and other means, including telephone, by 17. The use of a combination of these means was indicated by 111 respondents.

Table 5

Education Before and After Paralysis

Education After Paralysis	Education Before Paralysis										Total
	0	1	2	3	4	5	6	7	8	9	
0-None indicated	29	0	0	0	0	0	0	0	0	0	29
1-Partial grade school	9	2	0	0	0	0	0	0	0	0	11
2-Complete grade school	5	10	20	0	0	0	0	0	0	0	35
3-Partial high school	5	4	5	22	0	0	0	0	0	0	36
4-Complete high school	13	20	42	31	167	0	0	0	0	0	273
5-Partial college	4	6	15	13	6	71	0	0	0	0	115
6-Complete college	4	5	5	11	7	14	119	0	0	0	165
7-Partial graduate work	0	0	2	1	0	2	1	3	0	0	9
8-Complete graduate work	1	0	0	0	2	1	2	3	22	0	31
9-Other education	2	2	6	8	23	6	5	0	3	47	102
<b>Total</b>	<b>72</b>	<b>49</b>	<b>95</b>	<b>86</b>	<b>205</b>	<b>94</b>	<b>127</b>	<b>6</b>	<b>25</b>	<b>47</b>	<b>806</b>

It was interesting to note that 171 respondents indicated a knowledge of other languages. Among this group 46 individuals mentioned that they knew two or more languages. In order, the most frequently

mentioned were Spanish, French, German and Latin.

Marital Status

Half of the respondents reported that they were married before paralysis. As shown in Table 6, only 11 or 1.4% were reported as being divorced.

Table 6

Pre-Paralysis Marital Status by Sex of Respondents

Marital Status	Male		Female		Total	
	No.	%	No.	%	No.	%
	Single	183	51.8	199	43.9	382
Married	164	46.5	239	52.8	403	50.0
Divorced	3	0.8	8	1.8	11	1.4
Not Indicated	3	0.8	7	1.5	10	1.2
<b>Total</b>	<b>353</b>	<b>99.9</b>	<b>453</b>	<b>100.0</b>	<b>806</b>	<b>100.0</b>

A comparison of the data presented in Tables 6 and 7 demonstrates a considerable difference in the divorced and separated categories before and after paralysis. While no separations and 11 divorces were reported before paralysis, the post-paralysis picture includes 9 separations and 72 divorces. Paralysis was mentioned as a factor in about 80%, or 64, of the 81 cases presently separated or divorced. It should be noted also that 36 persons, or about 10% of those who were single,

married after the onset of disability. Of these post-paralysis marriages, six resulted in divorces or separations of which four were attributed to the disability.

Table 7

Present Marital Status by Sex of Respondents \*

Marital Status	Male		Female		Total	
	No.	%	No.	%	No.	%
	Single	161	45.6	185	40.8	346
Married	155	43.9	208	45.9	363	45.0
Separated	(2)	0.6	7(4)	1.5	9	1.1
Divorced	28(25)	7.9	44(33)	9.7	72	8.9
Widowed	2	0.6	0	0.0	2	0.2
Not Indicated	5	1.4	9	2.0	14	1.7
<b>Total</b>	<b>353</b>	<b>100.0</b>	<b>453</b>	<b>99.9</b>	<b>806</b>	<b>99.8</b>

\* Figures between parentheses indicate the numbers of people who mentioned that paralysis was a factor in divorce or separation.

Number of Children

Over half of the respondents have no children; of these, about 91% are single. Similar distributions in the number of children exist between men and women, as manifested in Table 8. Over 30% of the respondents have one or two children and about 17% have three or more children.



Table 8

## Number of Children by Sex of Respondents

Number of Children	Male		Female		Total	
	No.	%	No.	%	No.	%
None	192	54.4	226	49.9	418	51.8
One	30	8.5	56	12.4	86	10.7
Two	68	19.3	97	21.4	165	20.5
Three	40	11.3	56	12.4	96	11.9
Four and over	23	6.5	18	4.0	41	5.0
Total	353	100.0	453	100.0	806	99.9

It should be mentioned also that 52 men and 40 women reported having children born after paralysis. Children are mostly of younger ages, as should be expected from the age distribution of the parents, as shown in Table 2. In describing ages of their children, 240 respondents reported having children under 10 years of age, 284 reported having children of ages between 10 and 19 and only 36 reported having children 20 years of age or over.

Of the 384 people having children, 340 or 89% indicated that their children live with them. A higher proportion of the married (90%) than of the widowed and divorced (47%) have their children with them. Twenty-one of the divorced and separated reported that their children are living with their spouses. Only 5% of the parents mentioned that their children are living with relatives or others.

Parents' Occupation

Occupations reported by respondents for their parents include the general categories of the Census. It was not possible, however, to determine the parent for whom the occupation was reported.

Table 9

## Parents' Occupations

Occupation	No.	%
Professional and technical	44	16.9
Managerial, Official and Proprietary	34	13.1
Clerical and Sales	38	14.6
Craftsmen and Foremen	50	19.2
Operatives and Mine Workers	31	11.9
Service Workers, excluding Domestic	13	5.0
Farmers and Farm Managers	31	11.9
Laborers, including Farm	16	6.1
Private Household Workers	3	1.1
Total	260	99.8

If the serial order in which occupational categories are presented in Table 9 corresponds generally to the socio-economic hierarchy, it would indicate that the respondents come from higher socio-economic backgrounds as compared to the total population. Thirty per cent of the reported occupations for parents are professional, technical, managerial, official or proprietary while only 12% can be classified as service work, labor or private household work.

Respondents' Places of Residence

About as many respondents indicated that they live in their own homes as those indicating they live with their parents. As shown in Table 10, the majority of the single people live in their parents' homes while the majority of the married live in their own homes. It is worth mentioning that some younger respondents probably did not make the proper distinction in their answers between their parents' homes and their own. The table also reveals a high proportion of those divorced, separated or widowed who are not living in their own homes.

Table 10  
Residence by Marital Status

Residence	Marital Status								Total	
	Single		Married		Separated		Divorced or Not in- Widowed dicated			
	No.	%	No.	%	No.	%	No.	%	No.	%
Respondents' home	24	6.9	295	81.3	25	30.1	3	21.4	347	43.0
Parents' home	273	78.9	24	6.6	33	39.8	3	21.4	333	41.3
Other	26	7.5	20	5.5	10	12.0	2	14.3	58	7.2
Not indicated	23	6.6	24	6.6	15	18.1	6	42.9	68	8.4
<b>Total</b>	<b>346</b>	<b>99.9</b>	<b>363</b>	<b>100.0</b>	<b>83</b>	<b>100.0</b>	<b>14</b>	<b>100.0</b>	<b>806</b>	<b>99.9</b>

In specifying the types of their housing the great majority (712) indicated that they lived in houses. Apartments were second highest

in mention (49). Forty respondents reside in hospitals or nursing homes. Of those living in hospitals and nursing homes, the highest proportion is among the divorced and separated, which may partially explain such a post-paralysis marital status.

Of the 508 who mentioned that their bedrooms were originally built for that purpose 115 or 23% did not indicate satisfaction with the adequacy of their rooms. The rest who were satisfied with their rooms included 122 who had rooms specially built for their needs. A total of 186 persons have their beds in converted living, dining or other rooms and 58 or 31% expressed no satisfaction with such arrangements.

It is interesting to note that 116 or 14% of the respondents changed community of residence sometime after paralysis. Reasons for such changes were not sought in the questionnaires. It is probably in large part due to normal reasons of geographical mobility of families.



## MEDICAL CHARACTERISTICS

This part of the report includes a presentation of data related to such factors as the lapse of time since onset of disability, etiology of paralysis, the degree of involvement, residual capacities and health practices. It should be kept in mind that these data represent the respondents' estimates of their own conditions.

### Lapse of Time Since Onset of Disability

The lapse of time between onset of disability and responding to the survey questionnaires ranged from one year or less to 51 years. Table 11 shows that more than 70% of the cases reported a lapse of less than 10 years. It appears from comparing this distribution with the range of ages that the onset of disability in the majority of cases occurred at an early age.

Table 11

Lapse of Time Between Onset of Disability  
and the Survey

Lapse of Time	No.	%
Less than 5 years	63	7.8
From 5 to 9 years	510	63.3
From 10 to 19 years	191	23.7
20 years and over	27	3.3
Not indicated	15	1.9
Total	806	100.0

### Etiology of Disability

In the great majority of cases, 766 or about 95% of the total, disability was a result of poliomyelitis. Cord injury was reported as the cause of paralysis in 23 cases or 2.8% of the respondents. Multiple sclerosis and muscular dystrophy are frequent among the other causes reported by 17 persons. The small number of people reporting causes other than poliomyelitis renders cross-tabulation of etiology with other variables unnecessary.

### The Degree of Disability

Degrees of disability were determined on the basis of impairment in breathing functions and the involvement of extremities. Since measurement of extremity involvement was not precise, as will be explained later, combining the two criteria was felt unwarranted, hence they will be presented separately.

a. Breathing Involvement. Evaluation according to this criterion was made on the basis of respondents' reports about their dependence upon breathing aids. Table 12 shows the degrees of dependence.

Table 12  
The Degree of Dependence upon Breathing Aids

Degree of Dependence	No.	%
None at present	318	39.4
Night only	159	19.7
Night and part of day	189	23.4
Full time	137	17.0
Other	3	0.4
Total	806	99.9

use aid { 488 } 60.5

Among the 102 people indicating the use of frog-breathing, 75 said they use it less than 6 hours a day. Of these, 56 use it less than 3 hours. The other 27 mentioned that they use frog-breathing for periods extending from 6 hours to more than 15 hours daily.

In responding to the question about the frequency of aspiration 49 persons described it as being often. Seventy people indicated that aspiration is necessary only when they have colds and 687 did not mention the use of aspiration.

A higher proportion of males (63.7%) than females (58.7%) are dependent upon breathing aids. It is interesting to note also that among men dependent upon breathing aids those reporting involvement of upper extremities are less in proportion than those reporting involvement of lower extremities. This finding, however, can be due to the lack of precision in determining involvement.

b. Extremity Involvement: Data related to the involvement of extremities were collected by means of yes and no answers to questions asking whether or not the respondents could move the different parts of their extremities. It should be pointed out that an indication of movement does not mean the absence of limitation. As there were no direct means of determining limited mobility of the parts in question, respondents who answered affirmatively throughout were classified as having no involvement. Those who answered at least one question negatively were classified according to the set of extremities to which the immobility pertained, i.e., upper or lower. Those whose negative answers applied to at least one part in both sets were classified as having an involvement of the upper and the lower extremities. The results obtained are presented in Table 13.

Table 13  
Involvement of Extremities

Extremities Involved	No.	%
None	59	7.3
Uppers	91	11.3
Lowers	154	19.1
Uppers and Lowers	502	62.3
Total	806	100.0

In the section which follows, the writers have tried to define the severity of these disabilities more clearly by relating involvement of the extremities to other variables, especially residual capacities.

Residual Capacities

Residual capacities of respondents were determined through a series of questions regarding gross functions and abilities to perform activities of daily living. Tables 14 through 21 present the relationships of these residual capacities to the involvement of extremities. Again, it should be borne in mind that reported ability to move all extremities constituted "no involvement" as far as these tabulations are concerned, since opportunity to indicate weakness or partial paralysis was not provided.

a. Feeding and Dressing. Table 14 shows that 234 or 29% of the respondents have no ability to feed themselves. This of course is an important factor in the need for attendants. While 216 or



or about 27% indicated an ability for feeding themselves with assistive devices, an additional 35 can do so if ideally equipped.

Table 14  
Involvement of Extremities and Capacity for Feeding

Capacity for Feeding	Involvement of Extremities									
	None		Uppers		Lowers		Both		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
No ability	1	1.7	36	39.6	2	1.3	195	38.8	234	29.0
Able with assistive device	10	16.9	27	29.7	33	21.4	146	29.1	216	26.8
Able without assistive device	47	79.7	23	25.3	116	75.3	135	26.9	321	39.8
Able if ideally equipped	1	1.7	5	5.5	3	1.9	26	5.2	35	4.3
Total	59	100.0	91	100.1	154	99.9	502	100.0	806	99.9

Capacity for dressing is a personally important activity of daily living and was therefore included in the questionnaires. Results are presented in Table 15 which shows that about 83% of the total group are unable to perform this activity. The personal importance of the activity is reflected in the completeness of responses; only one person failed to indicate whether or not he could dress himself.

Table 15  
Involvement of Extremities and Capacity for Dressing

Capacity for Dressing	Involvement of Extremities									
	None		Uppers		Lowers		Both		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Unable	22	37.3	80	87.9	101	65.6	467	93.0	670	83.1
Able	37	62.7	11	12.1	53	34.4	34	6.8	135	16.7
Not indicated	0	0.0	0	0.0	0	0.0	1	0.2	1	0.1
Total	59	100.0	91	100.0	154	100.0	502	100.0	806	99.9

b. Writing and Typing. Among the severely disabled, correspondence assumes increased importance. It is significant to note (Table 16) that nearly one half of the respondents have the capacity for writing without assistive devices. It is equally important to point out that about 32% have no ability in this regard.

Table 16  
Involvement of Extremities and Capacity for Writing

Capacity for Writing	Involvement of Extremities									
	None		Uppers		Lowers		Both		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
No ability	4	6.8	39	42.9	8	5.2	206	41.0	257	31.9
Able with assistive device	7	11.9	17	18.7	20	13.0	104	20.7	148	18.4
Able without assistive device	48	81.4	32	35.2	125	81.2	178	35.5	383	47.5
Able if ideally equipped	0	0.0	3	3.3	1	0.6	14	2.8	18	2.2
Total	59	100.1	91	100.1	154	100.0	502	100.0	806	100.0

An evaluation of the ability to type was also sought in the questionnaires. However, it was not possible to determine whether a negative answer meant a physical inability or simply the lack of skill. As shown in Table 17, among those who can type 35% require an assistive device and an additional 9% can do so if ideally equipped. This can mean an electric typewriter, a mouth stick, a letter guard, an attendant to insert and remove paper, etc.

Table 17  
Involvement of Extremities and Capacity for Typing

Capacity for Typing	Involvement of Extremities									
	None		Uppers		Lowers		Both		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
No ability	11	18.6	24	26.4	14	9.1	174	34.7	223	27.7
Able with assistive device	9	15.3	36	39.6	40	26.0	200	39.8	285	35.4
Able without assistive device	37	62.7	19	20.9	90	58.4	72	14.3	218	27.0
Able if ideally equipped	2	3.4	11	12.1	8	5.2	52	10.4	73	9.1
Other or not indicated	0	0.0	1	1.1	2	1.3	4	0.8	7	0.9
Total	59	100.0	91	100.1	154	100.0	502	100.0	806	100.1

c. Reaching. Limitations in the above activities can in large part be explained through the ability, or more precisely the inability, to reach beyond the lap board area. Table 18 reveals that about 75% have a limited capacity for reaching, being unable to reach beyond that area. Implications as to the capacity for dressing are obvious. It also points out the need for some assistance in bringing feeding and writing utensils to the lap board.

Table 18  
Involvement of Extremities and Capacity for Reaching  
Beyond Lapboard Area

Capacity for Reaching	Involvement of Extremities									
	None		Uppers		Lowers		Both		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Unable	18	30.5	80	87.9	71	46.1	432	86.1	601	74.6
Able	37	62.7	11	12.1	83	53.9	68	13.5	199	24.7
Not indicated	4	6.8	0	0.0	0	0.0	2	0.4	6	0.7
Total	59	100.0	91	100.0	154	100.0	502	100.0	806	100.0

d. Transfer Activities. Ability to transfer from bed to chair, Table 19, is an important index of the degree of independence versus reliance upon attendants. The table indicated that 502 persons have reported involvement of both upper and lower extremities, yet about 40% of them require no assistance in transferring from bed to chair. A similar proportion, 42%, of the 154 with involvement in the lower extremities only can transfer unassisted. The significance of this comparison is the implied loss of function in the upper extremities for the 58% of those reported as having involvement in the lower extremities only, yet requiring assistance in transfer activities.

Table 19  
Involvement of Extremities and Number of Persons  
Required for Assistance in Transfer from Bed to Chair

Number of Persons Assisting	Involvement of Extremities									
	None		Uppers		Lowers		Both		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
None required	31	52.5	26	28.6	64	41.6	202	40.2	323	40.1
One person	10	16.9	40	44.0	39	25.3	29	5.8	118	14.6
More than one	2	3.4	19	20.9	34	22.1	152	30.3	207	25.7
Not indicated	16	27.1	6	6.6	17	11.0	119	23.7	158	19.6
Total	59	99.9	91	100.1	154	100.0	502	100.0	806	100.0

Table 20 presents the methods of transfer activities. The most frequently mentioned method was the use of hydraulic lifts which was reported by 310 persons, constituting about 38% of the respondents. It should be noted that of those for whom no involvement of extremities is indicated, over 20% are dependent upon lifts, slides, rolls or other devices for transfer.

Table 20

Involvement of Extremities and Method of Transfer from Bed to Chair

Method of Transfer	Involvement of Extremities									
	None				Uppers				Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Own power	0	0.0	3	3.3	1	0.6	1	0.2	5	0.6
Hydraulic lift	4	6.8	18	19.8	56	36.4	232	46.2	310	38.5
Slide, roll, other	8	13.6	5	5.5	33	21.4	47	9.4	93	11.5
Not indicated	47	79.7	65	71.4	64	41.6	222	44.2	398	49.4
<b>Total</b>	<b>59</b>	<b>100.1</b>	<b>91</b>	<b>100.0</b>	<b>154</b>	<b>100.0</b>	<b>502</b>	<b>100.0</b>	<b>806</b>	<b>100.0</b>

e. Ambulation. Information related to wheelchair ambulation is included in Table 21. About half of the respondents cannot propel a wheelchair while 21% of them can do so. Of particular interest are the 27% who made no indication in this respect. It is probable that a significant proportion of these are ambulatory in a normal, independent fashion. In fact, on another part of the questionnaire, 93 respondents indicated ability to walk independently. Also of medical

interest are the 19 persons who can propel their wheelchairs backward only. This is frequently the finding among patients with extensive arm weakness and the retention of partial function in one lower extremity.

Table 21

Involvement of Extremities and Wheelchair Activities

Wheelchair Activities	Involvement of Extremities									
	None		Uppers		Lowers		Both		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Can't propel wheelchair	8	13.6	28	30.8	38	24.7	326	64.9	400	49.6
Propels wheelchair	21	35.6	19	20.9	68	44.2	60	11.9	168	20.8
Requires powered chair	0	0.0	6	6.6	2	1.3	9	1.8	17	2.1
Other/not indicated	30	50.8	38	41.8	46	29.9	107	21.3	221	27.4
<b>Total</b>	<b>59</b>	<b>100.0</b>	<b>91</b>	<b>100.1</b>	<b>154</b>	<b>99.9</b>	<b>502</b>	<b>99.9</b>	<b>806</b>	<b>99.9</b>

f. Other Activities. In responding to questions about outdoor activities 112 said they rarely go outdoors, and 116 do not go out socially. Among those who do go out socially the need for assistance was apparent, and major reliance for such assistance is upon family members. Of particular interest is that none affirmed the use of agencies for assistance in social transportation.



Possession and Use of Equipment

Responses to possession and use of equipment give an added insight into the degree of disability as well as the degree of functional capacity retained. Table 22 presents some of the more standard items of equipment and their use by respondents.

Table 22  
Possession and Use of Equipment

Equipment	None Indicated	Uses Regularly	Has but Never Uses
Telephone	244	537	25
Typewriter	336	404	66
Standing table	709	62	35
Lift	426	342	38
Reading rack	509	267	30
Page turner	714	55	37
Ramp	459	346	1
Elevator	780	23	3
Feeders	567	198	41
Generator	700	90	16
Aspirator	665	115	26
Portable aspirator	389	388	29
Respirator batteries	532	243	31
Corset	352	391	63
Artificial muscle	782	21	3
Hand splint	554	168	94
Leg braces	626	107	73
Other	597	200	9

Upper extremity involvement is implied in 168 cases who regularly use hand splints and in the 198 who depend upon a feeder apparatus. In addition, 388 persons require regular use of a portable aspirator. Only 107 regularly use leg braces while 73 persons possess such braces but

never use them. Of the 346 people having a ramp only one person reported that he never uses it. This implies that a significant proportion of the respondents are wheelchair bound. However, no direct questions were asked respondents about usual modes of ambulation. It should be noted also that the table reveals the possession of a rather sizable amount of equipment that is never used, of which the two largest single items are leg braces and hand splints.

The average number of items per person was also computed. As would be expected it varied considerably with dependence upon or independence of breathing aids. For example, the number of persons independent of and dependent upon breathing aids who indicated possession of 9 or more pieces of equipment are 46 and 196 respectively.

Need for Attendants

The degree of disability was reflected also in the need for attendants. Such needs were indicated by 720 respondents or over 90% of the total. The majority depend upon members of their own families, but 234 persons or about one third of the 720 indicated that their attendants were volunteers other than family members, were hired help or a combination. Over half of the 806 respondents mentioned that attendants slept in the same room or within sound of a buzzer. It is also significant to note that 145 persons require turning in bed one or more times every night.

Only 40 people indicated they were residing in a hospital or nursing home, and of these, 15 or 37% had been in such residence for 5 years or more.

Medical Care: Availability and Use

With a large proportion of the group indicating dependence upon breathing aids it was felt important to show the arrangements made for emergency care and the distance to respiratory centers or other appropriate facilities. Table 23 presents findings about these arrangements as related to the degree of disability. It should be pointed out that among the 124 persons depending full time upon breathing aids, 41 or about 30% have no emergency arrangements, 22 would have to travel 50 miles or more for such services and 7 would have to travel 200 miles or more.

Table 23

Degree of Breathing Involvement,  
Arrangements and Distance for Emergency Treatments

Distance from Treatment Center	Dependence Upon Breathing Aids									
	Independent of Aid		Night Only		Night and Part of Day		Full Time		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 50 miles	78	24.3	54	34.0	68	36.0	61	44.5	261	32.4
50 miles or over	23	7.2	27	17.0	40	21.2	22	16.1	112	13.9
No arrangement	166	51.7	62	39.0	74	39.2	41	29.9	343	42.6
Not indicated	54	16.8	16	10.1	7	3.7	13	9.5	90	11.2
<b>Total</b>	<b>321</b>	<b>100.0</b>	<b>159</b>	<b>100.1</b>	<b>189</b>	<b>100.1</b>	<b>137</b>	<b>100.0</b>	<b>806</b>	<b>100.1</b>

The questionnaires also included items seeking information about past and present use of respiratory and rehabilitation centers. Respiratory centers refer to units that were largely sponsored by the

National Foundation and strategically located on the basis of both geographic areas and population distributions. About 43% or 343 respondents indicated present use of respiratory and/or rehabilitation centers. Of the 388 persons not using either services at present 227 or 58% used these centers in the past.

In responding to questions about physical therapy obtained, nearly half of the group indicated that they are receiving such services. Of these, 215 persons receive therapy daily or weekly. It should be mentioned also that therapy is received by a larger proportion (55%) of those dependent upon breathing aids than those independent of these aids (37%). Among those administering physical therapy to respondents, family members were the most frequently mentioned. In comparison to the 179 receiving therapy given by family members, 68 received therapy from attendants, 41 from registered physical therapists and 36 from local agencies. Other means including volunteers and a combination of various means were mentioned by 71 respondents.

ECONOMIC CHARACTERISTICS

While available information on the respondents' monthly earnings and other sources of income is not exhaustive, it will afford some insight into their general economic condition. Estimates for two sources of income were available in the data collected: earnings and economic assistance. Economic characteristics will also include discussion of the amounts of services needed and presently obtained as well as the housing situation of respondents.

Respondents' Earnings

Questions about respondents' earnings were explicitly seeking the average monthly earnings resulting from employment or other work. Over two thirds of the respondents did not indicate any earnings; nearly 20% earned less than 100 dollars per month, and over 13% reported monthly earnings of more than 100 dollars. As shown in Table 23, the proportions of men exceeded those of women at every level of earnings. For example, while 22.9% of the men earned more than 100 dollars monthly, only 6% of the women reported such earnings.

Table 24  
Average Monthly Earnings by Sex

Sex	Average Monthly Earnings									
	None Indicated		Less than \$100		\$100-\$199		\$200 & over		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Male	201	56.9	71	20.1	21	5.9	60	17.0	353	99.9
Female	340	75.0	86	19.0	13	2.9	14	3.1	453	100.0
Total	541	67.1	157	19.5	34	4.2	74	9.2	806	100.0

As would be expected, earnings are highly dependent upon working status. As exhibited in Table 25, about 98% of those indicating no employment or work activity reported no earnings. However, a reversal in the picture can be seen by comparing the earnings of people working full time with the earnings of those reporting part-time work. While the majority of the first group (73%) earned less than 100 dollars per month, 74% of the latter group indicated monthly earnings of more than 200 dollars. Some explanation for this reversal can be found in the type of work undertaken. For example, a higher percentage of professional, technical and managerial people reported part-time work engagements as compared to those in occupations such as clerical and sales, in which a higher percentage reported either full-time work or home projects.

Table 25  
Average Monthly Earnings by Present Working Status

Present Working Status	Average Monthly Earnings								Total	
	None Indicated		Less than \$100		\$100-\$199		\$200 and over			
	No.	%	No.	%	No.	%	No.	%	No.	%
Full Time	3	4.7	47	73.4	8	12.5	6	9.4	64	100.0
Part Time	2	2.7	10	13.5	7	9.5	55	74.3	74	100.0
Home Project	12	9.1	92	69.7	18	13.6	10	7.6	132	100.0
Not indicated	524	97.8	8	1.5	1	0.2	3	0.5	536	100.0
Total	541	67.1	157	19.5	34	4.2	74	9.2	806	100.0

The relationships between the average monthly earnings and the present educational levels present a consistent picture. Excluding



the apparently heterogenous category of "other educational pursuits", Table 26 shows that the higher the level of education the higher the proportion of respondents reporting monthly earnings. Furthermore, the table shows that considerably larger proportions of those with higher levels of education have higher monthly earnings. For example, while nearly half of the people who received partial graduate training or completed their graduate degrees earn \$200 or more per month, only about 13% of those with partial or complete college training and 2% of those receiving no college training reported such earnings.

Table 26  
Average Monthly Earnings by Present Educational Levels

Educational Levels	Average Monthly Earnings									
	None Indicated		Less than \$100		\$100-\$199		\$200 & over		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Partial/complete graduate work	12	30.0	6	15.0	3	7.5	19	47.5	40	100.0
Partial/complete college work	169	60.3	58	20.7	17	6.1	36	12.9	280	100.0
Below college	273	76.9	64	18.0	10	2.8	8	2.3	355	100.0
Other educational pursuits	59	57.8	29	28.4	3	2.9	11	10.8	102	99.9
Not indicated	28	96.6	0	0.0	1	3.4	0	0.0	29	100.0
<b>Total</b>	<b>541</b>	<b>67.1</b>	<b>157</b>	<b>19.5</b>	<b>34</b>	<b>4.2</b>	<b>74</b>	<b>9.2</b>	<b>806</b>	<b>100.0</b>

Differences in the degree of involvement corresponded to some, although slight, differences in earnings. Among the 318 persons independent of breathing aids, 117 or 37% reported earnings. Of these, 39 or 33% earned \$200 or more per month. On the other hand, 30% of those

dependent on breathing aids or 148 of 488 received earnings. Only 35 persons constituting 23% of the latter group earned \$200 or more monthly.

#### Financial Benefits and Assistance

Sources of income, other than earnings, for which information was available include veterans', social security and insurance benefits as well as financial assistance provided by public and other agencies and groups. Estimates of the total amounts of income from these sources and specifically from Veterans Administration and Social Security were obtained from responses to the first part of the questionnaire. More comprehensive questions regarding the sources, types and purposes of assistance were included in the second part of the questionnaire.

a. Amounts of Benefits and Assistance. Estimates of the total amounts of veterans' and social security benefits in addition to the economic help received from other sources ranged from none to \$500 or more. Although not explicitly stated, the structure of the questions seeking these estimates strongly implies a monthly basis. Table 27 presents the distributions of the total amounts of benefits and/or assistance obtained and shows their relationships to respondents' monthly earnings. It can be noticed that about 42% of the group received neither benefits nor assistance. In fact, only 301 persons or 37% of the total 806 have indicated income from such sources. Over one third of this group received less than \$100 per month.

The table shows that among those for whom no earnings or monthly sums of less than \$100 were indicated, 40% received benefits or assis-

tance as compared to 22% of those earning \$100 or more per month. It is also important to point out that no benefits or assistance were indicated for 331 or 61% of the 541 for whom no earnings were reported.

Table 27  
Total Benefits and/or Assistance  
and the Average Monthly Earnings\*

Total Benefits and/or Assistance	Average Monthly Earnings									
	None Indicated		Less than \$100		\$100- \$199		\$200 & over		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	210	26.0	57	7.1	16	2.0	53	6.6	336	41.7
Less than \$100	66	8.2	34	4.2	2	0.2	3	0.4	105	13.0
\$100-\$199	57	7.1	19	2.4	4	0.5	5	0.6	85	10.5
\$200-\$299	43	5.3	13	1.6	1	0.1	3	0.4	60	7.4
\$300 or more	34	4.2	11	1.4	4	0.5	2	0.2	51	6.3
Not indicated	131	16.3	23	2.9	7	0.9	8	1.0	169	21.0
<b>Total</b>	<b>541</b>	<b>67.1</b>	<b>157</b>	<b>19.5</b>	<b>34</b>	<b>4.2</b>	<b>74</b>	<b>9.2</b>	<b>806</b>	<b>100.0</b>

\* Percentages in this table are computed using the total number of respondents (806) as a base.

Marked differences exist between men and women in the proportions receiving benefits and/or assistance as well as in the total amounts obtained. As manifested in Table 28, 46.5% of the males are receiving benefits and/or assistance, and amounts of \$200 or over are received by slightly more than half of them. On the other hand, only 30.3% of the females receive financial benefits and/or assistance and only 5.8% of these reported total amounts of \$200 or over. These sex differentials are probably a function of veterans' and social security benefits for which the eligible males outnumber the females. Equally possible, of course, is that some able husbands of female respondents earn enough to meet contingent needs unassisted.

Table 28  
Total Benefits and/or Assistance by Sex

Total Benefits and/or Assistance	Sex					
	Male		Female		Total	
	No.	%	No.	%	No.	%
None	110	31.2	226	49.9	336	41.7
Less than \$100	37	10.5	68	15.0	105	13.0
\$100-\$199	42	11.9	43	9.5	85	10.5
\$200-\$299	42	11.9	18	4.0	60	7.4
\$300 or more	43	12.2	8	1.8	51	6.3
Not indicated	79	22.4	90	19.9	169	21.0
<b>Total</b>	<b>353</b>	<b>100.1</b>	<b>453</b>	<b>100.1</b>	<b>806</b>	<b>99.9</b>

It is interesting to note also that by grouping respondents according to their major pre-paralysis occupational categories, the highest proportion of those receiving benefits and/or assistance, about two thirds, was found among craftsmen, foremen and operatives. People who had professional, technical and managerial occupations followed with slightly over half of them reporting such incomes. The lowest proportion among the major occupational groups represented was found among the clerical and sales workers, of whom only one third received benefits and/or assistance.

Present independence of or dependence upon breathing aids seemed to have no relationship to the amounts of benefits or assistance obtained or the proportions of people receiving them. Involvement of extremities as reported in the questionnaires also exhibited no influence in this respect.

As has been mentioned before, estimates of the amounts were specifically obtained for veterans' and social security benefits. Other sources were grouped together as shown in Table 29. If it can be assumed that a large proportion of those who did not indicate assistance from other sources do in fact receive none, there would be no appreciable differences in the distributions presented in Table 29 except in the amounts of payments. A higher proportion of people received \$200 or more from Social Security or other sources than from the Veterans' Administration.

Table 29

Amounts of Benefits and/or Assistance by Sources

Amounts of Benefits and/or Assistance	Sources of Benefits or Assistance					
	V.A.		Social Security		Other Sources	
	No.	%	No.	%	No.	%
None	659	81.8	621	77.0	485	60.2
Less than \$100	13	1.6	81	10.0	74	9.2
\$100 to \$199	89	11.0	47	5.8	52	6.4
\$200 or more	14	1.7	32	4.0	30	3.7
Not indicated	31	3.8	25	3.1	165	20.5
<b>Total</b>	<b>806</b>	<b>99.9</b>	<b>806</b>	<b>99.9</b>	<b>806</b>	<b>100.0</b>

b. Sources and Types of Benefits and Assistance. Several sources of financial benefits or assistance were named by the respondents. Among these, as shown in Table 30, the National Foundation is by far the most frequently mentioned. County and state assistance come second and family and relatives third in the frequency of mention as sources of

financial support. These three sources are also represented in the same order in providing regular assistance. In fact the survey findings show that the National Foundation occupies the most prominent position in all types of assistance. However, the highest proportion of regular assistance (90%) is provided by Social Security. It is followed by the Veterans' Administration with 76%, county and state agencies with 57%, family and relatives with 55% and the National Foundation with 30% of the support being in regular form. In order, the two sources most frequently mentioned for past (discontinued) assistance are the National Foundation and insurance.

Table 30 also indicates that a higher proportion of people are receiving benefits or assistance in the form of regular payments. Past support was second, followed by "occasional" and "one shot" forms.

Table 30

Sources of Benefits and Assistance by Their Regularity

Sources of Assistance	Regularity of Assistance							Total
	Regu- lar	Tempor- ary	Occa- sional	One Shot	Combin- Past	ation ind.		
Family & Relatives	194	13	66	12	44	0	22	351
Church & Community	50	5	60	71	51	12	23	272
Employer pre-paralysis	6	2	6	16	15	0	2	47
National Foundation	463	40	210	66	636	19	88	1522
County & State	288	27	50	22	76	5	40	508
Insurance	59	15	64	34	105	6	24	307
Social Security	131	3	8	0	0	0	4	146
Veterans' Adm.	161	5	5	6	19	1	16	213
<b>Total</b>	<b>1352</b>	<b>110</b>	<b>469</b>	<b>227</b>	<b>946</b>	<b>43</b>	<b>219</b>	<b>3366</b>



c. Purposes of Benefits and Assistance. The predominant purpose, as shown in Table 31, is medical and hospital care followed by equipment and attendant care. The table reports figures representing all benefits and assistance mentioned by respondents regardless of the degree of regularity. In other words, the figures include present as well as past support. The National Foundation is highest in providing aid for attendant care, equipment and medical and hospital care. For housing and child care the family and relatives are providing more support than any other source. In general, family assistance is fairly well distributed among the different purposes. This is also characteristic of support from church and community, Veterans' Administration and state and county agencies. Insurance benefits were largely used in meeting costs of medical and hospital care as well as purchasing equipment.

Table 31  
Purposes of Benefits or Assistance by Their Purposes

Sources	Purposes						Total
	Atten- dants	Chil- dren	Hous- ing	Equip- ment	Med. & Hosp. care	Other	
Family & Relatives	68	42	76	42	67	56	351
Church & Community	32	17	31	67	53	72	272
Employer pre-paralysis	1	5	4	6	4	27	47
National Foundation	329	4	8	486	660	35	1522
County & State	105	39	38	63	184	79	508
Insurance	15	2	2	23	250	15	307
Social Security	17	32	10	1	5	81	146
Veterans Adm.	35	12	16	20	60	70	213
<b>Total</b>	<b>602</b>	<b>153</b>	<b>185</b>	<b>708</b>	<b>1283</b>	<b>435</b>	<b>3366</b>

The highest regular support is provided for the purposes of medical and hospital care, equipment and attendants. The same pattern is exhibited in the occasional assistance and to some extent in the other major forms of support.

It is important to notice that among the forms of assistance past is most frequently mentioned for medical and hospital care and is second in mention for equipment and attendant care.

Table 32  
Purposes of Benefits or Assistance by Their Regularity

Regularity	Purposes						Total
	Atten- dants	Chil- dren	Hous- ing	Equip- ment	Med. & Hosp. care	Other	
<u>Regular</u>	263	81	100	320	342	246	1352
Temporary	29	7	9	12	43	10	110
Occasional	24	23	15	121	237	49	469
One Shot	12	7	20	76	77	35	227
<u>Past</u>	241	27	28	124	465	61	946
Combination	6	3	2	8	22	2	43
Not indicated	27	5	11	47	97	32	219
<b>Total</b>	<b>602</b>	<b>153</b>	<b>185</b>	<b>708</b>	<b>1283</b>	<b>435</b>	<b>3479</b>

d. Needs for Financial Assistance. Respondents were also asked to indicate their needs for financial assistance. As shown in Table 33, the most prominent need is that for attendant care followed by equipment.

Table 33  
Needs for Financial Assistance

Needs	No. Indicating Need	Percent of Total
Attendant care	335	41.6
Equipment	157	19.5
Setting up home business	132	16.4
Education	109	13.5
Vocational guidance	75	9.3
Other purposes	104	12.9

316

The figures presented in the table above also emphasize the potential for vocational rehabilitation among these people. In spite of the possibility of overlap among the three categories, there are significant numbers expressing the needs for setting up a home business, education and vocational guidance.

In discussing needs for financial assistance, it is felt important to mention that 346 persons have some type of hospitalization insurance; 255 mentioned that they have other hospitalization arrangements. Of the remaining 205, no hospitalization coverage was reported by 188, and 17 persons failed to indicate whether or not they have any arrangements.

Types of Services and Changes in Use

The three major types of services being used by respondents are attendance, housekeeping and nursing. A considerable number of the people performing these services live in with the respondents. Included are 59 attendants, 57 housekeepers and 6 nurses. Quarters for help living in were described by 103 respondents as being a private

room and by 7 as a connecting apartment. Advertising, mentioned by 122, was the most often used means of securing the needed help. Help was also found by 101 persons through friends. Other means used included hospitals and employment agencies.

In regard to the use of the three major types of services, Table 34 shows that attendants were used by a greater number of people, followed by housekeepers and nurses both registered and practical. While the increase in use follows the same order, the elimination of each of these three services exhibits a reversed pattern. In other words, nursing services were eliminated by a larger number of people, followed by housekeepers and attendants.

Table 34  
Types of Services and Changes in Use

Use of Services	Types of Services							
	Atten- dance		House- keeping		Nursing		Other	
	No.	%	No.	%	No.	%	No.	%
Increased	125	15.5	103	12.8	41	5.1	55	6.8
No change	69	8.6	60	7.4	20	2.5	33	4.1
Reduced	31	3.8	33	4.1	6	0.7	9	1.1
Eliminated	64	7.9	66	8.2	85	10.5	34	4.2
None indicated, or not determined	517	64.1	544	67.5	654	81.1	675	83.7
Total	806	100.0	806	99.9	806	99.9	806	99.9

Half of the people reducing and eliminating any of these services indicated financial reasons for doing so. Other reasons given include

"children growing older" and "receiving further rehabilitation" and a combination of these factors.

Adequacy of Services

In evaluating the adequacy of the services obtained, as presented in Table 35, nearly half of the respondents indicated that it was at minimum or below. People who reduced or eliminated their help because of financial reasons constituted a large proportion of those dissatisfied with the adequacy of their help.

Table 35

Estimates of the Adequacy of the Services Obtained

Degree of Adequacy	No.	%
Adequate	414	51.3
Minimum	155	19.2
Inadequate	71	8.8
Unsafe	40	5.0
Not indicated	126	15.6
<b>Total</b>	<b>806</b>	<b>99.9</b>

As would be expected, the amounts of attendance and nursing services measured in the number of hours provided are related to the degree of disability. A higher proportion of those dependent on breathing aids reported the use of such services and for more hours than those independent of such aids. The total number of service hours ranged from none to more than 200 per week with about 70% of those receiving services reporting less than 80 hours.

The types and amounts of services provided by the family are of

considerable importance to the respondents. More than two thirds indicated that they receive help from family members in dressing, feeding, grooming or a combination of these activities. Family assistance in reading, typing and telephoning is also mentioned by more than half of the respondents.

Cost of Services

Total salaries paid by respondents for the services they obtained ranged from less than \$40 to \$180 per week. The weekly salaries paid by two thirds of those using hired help are less than \$60 and between \$60 and \$100 for 12% of them. Table 36 presents a comparison of the salaries paid for the three major types of service.

Table 36

Weekly Salaries Paid by Types of Service

Weekly Salaries	Attendance	House-keeping	Nursing
Less than \$20	25	39	10
\$20 to \$39	80	59	8
\$40 to \$59	77	32	14
\$60 and over	32	4	10
Not indicated	592	672	764
<b>Total</b>	<b>806</b>	<b>806</b>	<b>806</b>

These figures do not necessarily indicate the rates of pay for the different types of service. They largely reflect the numbers of hours of services obtained, as has been mentioned before. It should be pointed out that one hundred persons are presently utilizing two of these services and 25 mentioned all three.



## OCCUPATIONAL CHARACTERISTICS

Although more than a third of the respondents did not indicate having been employed either before or after disability, the number for whom jobs were reported is large enough to warrant a survey of post-onset changes in occupation and working status as modulated by other characteristics. Respondents who may be unemployed are considered briefly in the section which follows.

### Changes in Occupation after Onset

Table 37 shows the occupations reported before and after onset of disability. The categories used are those established by the U.S. Bureau of the Census.

Of the 336 respondents who did not indicate employment either before or after onset, about 68% are females and 9% are children of less than working age. Two hundred-seventeen or nearly 65% report involvement in upper and lower extremities and 60% are presently dependent upon breathing aids. Less than a high school education was indicated by 63%. Singly or in combination, factors such as household responsibilities in the case of females, youthful age, early onset, interrupted education and severity of disability may preclude employment for many.

Of the 216 who were employed before onset but who did not specify

an occupation at the time of the survey, 78% had less than high school education. Eight per cent were women reporting children born after onset. Involvement of upper and lower extremities was indicated by 64%, and 68% depend on breathing aids.

Table 37  
Occupation Before Onset and at Present  
by Sex of Respondent

Occupation	Sex of Respondent							
	Male				Female			
	Before	Present	Before	Present	Before	Present	Before	Present
No.	%	No.	%	No.	%	No.	%	
Professional & technical	62	17.6	51	14.4	58	12.8	45	9.9
Managers, officials and proprietors except farm	10	2.8	21	5.9	4	0.9	3	0.7
Clerical & sales	46	13.0	60	17.0	91	20.1	65	14.3
Craftsmen & foremen	41	11.6	3	0.8	3	0.7	1	0.2
Operatives & mine workers	13	3.7	0	0.0	4	0.9	0	0.0
Service except private household	3	0.8	1	0.3	10	2.2	1	0.2
Farmers & farm managers	13	3.7	2	0.6	0	0.0	0	0.0
Laborers including farm laborers & foremen	8	2.3	1	0.3	0	0.0	0	0.0
Domestic	0	0.0	0	0.0	0	0.0	0	0.0
Not indicated	157	44.5	214	60.6	283	62.5	338	74.6
<b>Total</b>	<b>353</b>	<b>100.0</b>	<b>353</b>	<b>99.9</b>	<b>453</b>	<b>100.1</b>	<b>453</b>	<b>99.9</b>

Although representation in the professional, managerial and clerical categories alters considerably after onset, a greater proportional number of changes seems to have occurred within the smaller groups representing the other occupations. The exact proportions and directions of change for any group, however, remain to be seen in Table 38.

Percentages are computed from the total number of respondents in each group before onset. The occupational categories listed above will henceforth be reduced to four by reason of small representation in some and none in others.

Table 38

Changes in Occupation and Employment Status after Onset

Occupation before Onset of Disability	Presently Employed							
	Remained in Occupation		Entered Occupation		Changed Occupation		Not Employed at Present	
	No.	%	No.	%	No.	%	No.	%
Professional . . . & Managerial . . .	49	36.6	71(47)*	53.0	20	14.9	65	48.5
Clerical & Sales Craftsmen . . . & Operatives . .	34	24.8	91(54)	66.4	16	11.7	87	63.5
Other Occupations	1	1.6	3(2)	4.9	18	29.5	42	68.9
None Indicated	1	2.9	4(1)	11.8	11	32.4	22	64.7
	. .	. .	(104)	23.6	. .	. .	336	76.4

\* Figures within parentheses total 104 and represent among the respondents who entered each occupation, the number who did not indicate an employment before onset.

Proportionally high after onset, the totals in the professional-managerial and clerical-sales categories should not obscure the displacement of a great number who were originally within those groups. It must be noted that proportions of change in status recorded for any of the groups may be influenced in part by factors other than disability.

Education is a noteworthy example and will be treated later.

The directions of change are further illustrated in Table 39. The respondents representing the four occupational categories at present

are distributed according to their occupations before onset.

Table 39

Occupation before Onset of Disability  
and at Present

Occupation at Present	Occupation before Onset											
	0		1		2		3		4		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0-None indicated	336	76.4	65	48.5	87	63.5	42	68.9	22	64.7	552	68.4
1-Professional . & Managerial .	47	10.7	49	36.6	16	11.7	6	9.8	2	5.9	120	14.9
2-Clerical & Sales	54	12.3	18	13.4	34	24.8	11	18.0	8	23.5	125	15.5
3-Craftsmen . . & Operatives .	2	0.5	0	0.0	0	0.0	1	1.6	1	2.9	4	0.5
4-Other occupations	1	0.2	2	1.4	0	0.0	1	1.6	1	2.9	5	0.6
Total	440	100.1	134	99.9	137	100.0	61	99.9	34	99.9	806	99.9

Since an accounting has been attempted for respondents who may never have been employed and for those who had been employed previously, some description is justified of the group who did not indicate employment before onset but who are working now. Numbering 104, forty-six per cent are males of whom 18% are married. Completion of high school and/or partial or complete college training or other education after onset was reported by 63%. Since 48% range in age from 20 to 29, and with the lapse of time for all respondents averaging about ten years since onset, it can be safely assumed that a large proportion of the group were of less than working age at the time of onset.

### Occupation and Age

The largest proportion (29%) of the professional . . . managerial groups range in age from 30 - 34. About 26% are under thirty and 45% over thirty-four. Similarly, in the clerical and sales groups 28% are from 30 - 34 years of age while 31% are under thirty and nearly 41% are thirty-four or over. The few respondents representing the other occupational categories after onset are generally in their twenties and thirties. The youngest person reporting employment is fourteen years of age and the oldest 58.

### Employment and Education

Findings of this survey clearly demonstrate the relationship of educational level and employment status. As the level of education increased, the proportions of respondents indicating no employment decreased markedly. Listed below as proportions of the totals at their levels of education are the respondents who reported employment at the time of the survey.

Table 40

Proportion Reporting Post-Onset Employment  
by Their Educational Levels

Educational Levels	Per Cent Employed
Less than high school	12%
High School	24%
Partial or complete college	38%
Graduate training	70%

### Working Status and Severity of Disability

Of the 270 employed respondents who indicated their working status, nearly half reported home projects. About 27% were employed part time and 24% full time. The following distributions result when the same respondents are grouped by disability: among those who indicated involvement of upper and lower extremities, 85 or 56% were engaged in home projects, and the remainder were almost evenly divided between part- and full-time jobs. Twelve or 55% of those reporting upper involvements had home projects, nine held part-time work and only one indicated a full-time job. Those reporting lower involvements were uniformly distributed with 38% indicating home projects and 62% divided equally between the two remaining categories. While the dependent and independent in breathing were almost evenly represented in full- and part-time work, the former were about 57% of the 130 who reported home projects.

### Occupation and Present Working Status

In closing this report it seems appropriate to focus on the respondents as they are presumably now at work. Occupations and current working status are presented in Table 41. Home projects are seen to predominate, especially among the clerical and sales group. Some of the more frequently mentioned projects were television monitoring, bookkeeping, typing and telephone soliciting. Among the professional and managerial groups many continue to operate businesses from their homes, some to practice law and medicine and others to teach.



Perhaps lesser involvements or programs of rehabilitation have enabled a large number of return to part- and full-time work. Again, much of what could be relevant to such determinations is imprecisely known.

Table 41  
Present Occupation by Working Status

Occupation	Working Status									
	Not Ind.		Full Time		Part Time		Home Project		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Professional . . . .	7	1.3	24	37.5	48	64.9	41	31.1	120	14.9
& Managerial . . . .	5	0.9	32	50.0	23	31.1	65	49.2	125	15.5
Clerical & Sales										
Craftsmen . . . . &										
Operatives . . . .	0	0.0	1	1.6	0	0.0	3	2.3	4	0.5
Other Occupations	0	0.0	3	4.7	2	2.7	0	0.0	5	0.6
Not Indicated	524	97.8	4	6.3	1	1.4	23	17.4	552	68.5
<b>Total</b>	<b>536</b>	<b>100.0</b>	<b>64</b>	<b>100.0</b>	<b>74</b>	<b>100.0</b>	<b>132</b>	<b>100.0</b>	<b>806</b>	<b>100.0</b>

A brief description of current activities other than work will provide a final note. Avocational interests were recorded under three headings: affiliation, hobbies and volunteer activities. As would be expected, hobbies proved most popular. Of 806 respondents, 579 or 72% had hobbies, 222 or 28% mentioning one, 158 or 19% mentioning two and the remainder more than two. About 196 or 24% of the respondents listed volunteer activities, and 155 or about 19% reported membership in fraternal or honorary organizations.

## SUMMARY AND IMPLICATIONS

This publication reports the findings of a survey of people with respiratory and other severe post-polio disabilities. The survey was initiated by Editors of the TOOMEY j GAZETTE, and the findings were analyzed and reported by the Social Research section of the Ohio Rehabilitation Center.

Several waves of a two-part questionnaire were mailed to some 1400 people on the T.j.G mailing list. A return of about 55 per cent was obtained which included responses from 806 individuals. Findings are presented and discussed in four major sections covering demographic and family, medical, economic and vocational characteristics of the respondents.

### Demographic and Family Characteristics

Included were 453 females and 353 males. The great majority, about 73%, range in age from 20 to 39 years. Only ten respondents identified themselves as non-white. The present educational levels reported are much higher than those in the average population. In fact, only 10% did not complete high school while 38% have completed college. A comparison of the educational levels before paralysis and at the time of survey shows remarkable achievements on the part of many of the individuals.

Some items descriptive of family composition were also included in the questionnaires. Half of the respondents were married before paralysis

while 47% were single. The major change in marital status after paralysis was in the proportions of the divorced and separated which increased from 1.4% to 10% of the respondents. The majority of these attributed their separations or divorces to the disability. Most of those having children indicated that their children live with them.

The high socio-economic status of respondents' families as compared to the general population is evident in the parents' occupations. About 30% of the respondents' parents are in professional, technical, managerial, official and/or proprietary occupations. However, a number of the other census occupational categories were represented in similar proportions to those present in the U.S. employed population.

The great majority of respondents (84%) lived in either their parents' homes or their own. The dwelling units indicated by most were private houses. At the time of survey, forty individuals resided in hospitals or nursing homes. About 115 or 23% of the respondents were not satisfied with the adequacy of their rooms.

#### Medical Characteristics

The disability in 95% of the cases is a result of poliomyelitis. Cord injury accounted for about 3% and miscellaneous causes for the remainder. The lapse of time since onset varied from less than one year to 51 years with 87% of the cases falling between 5 and 20 years. Responses showed about 60% of the cases depend upon breathing aids in varying degrees. Involvement of the upper and lower extremities was reported by 62%, upper only by 11% and lower only by 19%. The remain-

der indicated no extremity involvement. It should be remembered that the ability to move all extremities constituted "no involvement" since opportunity to indicate weakness or partial paralysis was not provided.

Residual capacities for activities of daily living were related to extremity involvement in order that the severities of respondents' disabilities could be better defined. Twenty-nine per cent have no ability to feed themselves. About 40% are able to do so without assistance, and nearly 31% can or could feed themselves with assistive devices. Inability to dress was reported by 83%. The ability to write unassisted was indicated by 48% and the ability to type by 27%. Writing and typing with assistive devices was specified by 18% and 35%, respectively. About 32% are unable to write and 28% cannot type. Nearly 75% are unable to reach beyond the lap board area, which may in part explain the limitations in the above activities. The ability to transfer from bed to chair with no one assisting was reported by about 40%. An additional 40% can transfer with help. Almost half of the respondents cannot propel a wheel chair. Of the 27% who made no indication in this respect, some are probably able to walk independently.

The need for attendants is also a measure of the degree of disability. Over 90% of the respondents indicated this need, the majority depending upon family members and about a third upon volunteers, hired help or a combination.

The survey also covered medical services used. Forty-three per cent presently use respiratory and/or rehabilitation services. A specific service in question was physical therapy, received by nearly half of all

respondents. Arrangements for emergency care were indicated by about 46%, but of the 137 persons depending full-time on breathing aids, at least 30% have no emergency arrangements. In many cases the distance to the center of treatment seemed greater than emergency would allow. Nearly 14% of the respondents would have to travel fifty miles or more for emergency care.

#### Economic Characteristics

Estimates of income were based on earnings, benefits and economic assistance. While over two-thirds of the respondents did not indicate any earnings, 13% earned more than \$100 monthly. More men earned, and earned more, than women. Although higher earnings were reported by more part-time workers than full-time, a larger proportion of the former indicated professional, technical or managerial occupations. Earnings related consistently to levels of education: the higher the level, the larger the proportion reporting earnings and the greater the earnings. The degree of involvement corresponded only slightly to differences in earnings.

Forty-two per cent of the respondents received neither benefits (V.A., Social Security, insurance, etc.) nor assistance. More than a third of the 37% who indicate such incomes receive less than \$100 per month. Twenty-one per cent did not respond.

Sources of benefits or assistance most frequently mentioned were the National Foundation, county and state agencies, family and relatives. The same sources provide the most regular assistance. The pre-

dominant purposes of assistance are medical and hospital care, purchase of equipment and payment for attendants. Most prominent among remaining needs for financial assistance are attendant care and equipment.

The services most used by respondents are attendance, housekeeping and nursing. When services are reduced or eliminated, nursing and housekeeping usually precede attendance. The adequacy of all services obtained is minimum or below according to nearly half of the respondents, especially those who reduced or eliminated services for financial reasons.

The number of service hours varies from none to more than 200 per week and, as expected, corresponds to the degree of disability. Seventy per cent of those receiving service report less than 80 hours weekly. More than two-thirds of the respondents are helped by family members in most activities of daily living.

Salaries paid for services ranged from less than \$40 to \$180 per week; two-thirds were less than \$60, and 12% were between \$60 and \$100 weekly. The variation largely reflects the number of service hours obtained. Salaries over \$60 were most often paid for attendant care.

#### Vocational Characteristics

More than a third of the respondents did not indicate employment either before onset or at the time of survey. About 19% were employed in both instances. Twenty-seven per cent were employed before onset but not at the time of survey, and 13% were not employed before onset but are now.



Considered separately, the occupational groups least affected by disability were professional and managerial, with about 37% of their original number remaining, and clerical and sales, 25% remaining. Of 95 persons formerly employed as craftsmen, foremen, operatives, service workers, farmers or laborers, only two have the same classifications at the time of survey. Sixty-five persons changed occupations sometime after onset.

The importance of education is again apparent in the proportion at each level who indicated employment at the time of survey. Of those reporting less than a high school education only 12% were employed; high school, 24%; partial or complete college, 38%; graduate training, 70%.

The degree of disability was seen to correspond with present working status. Among those who were employed and who reported involvements which included the upper extremities, a greater proportion were engaged in home projects than among those who reported involvement of lower extremities only. With one exception, the remaining proportion in each category of extremity involvement was almost equally divided between part- and full-time work. Dependence upon or independence of breathing aids did not bear significantly on working status.

The highest proportion (65%) of the part-time workers were in the professional and managerial categories. Clerical and sales workers formed the largest proportion among those reporting full-time employment (50%) and home projects (49%).

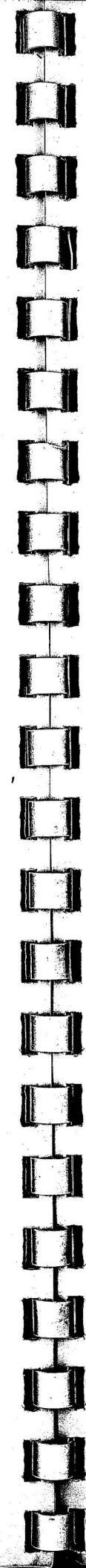
#### Some Implications

Implications in these findings are several. The vocational achievements of a large proportion of those included in the survey should be of interest from the rehabilitation point of view. It is particularly important to note that vocational outcome was not determined by the degree of disability alone. Further analysis of the available data may help to disclose the important factors associated with the levels of vocational achievement. Education is very likely prominent among these factors. An assessment both of the means employed by some to continue their studies and of the restrictions faced by others could be very useful in furthering special education.

The majority of post-paralysis separations and divorces were attributed to disability. These findings accentuate the need for a comprehensive study of the impacts of disability upon family relations. Although data pertaining to the dynamics of family relations are lacking, further analysis of the available data should be carried out in an attempt to study some of the factors related to the success or failure of marriages stressed by disability.

Findings also suggest that many need but cannot afford more care. It is obvious that long-term disabilities require long-term aid. A comparison of the costs of institutional and home care would be important from an economic point of view. This survey did not provide sufficient data for such a comparison. If further study would reveal that some have at least the potential for adequate self-care, rehabilitation to that end might free other family members for work which could partially obviate long-term financial assistance.

It is clear that the needs of people surveyed as well as others in similar situations are many and varied. This again raises the often discussed question of the adequacy of health, social, economic, educational and vocational services available at community levels and of enhancing the effectiveness of their coordination.



A P P E N D I X

T J G C E N S U S  
Part I

Male \_\_\_ Female \_\_\_ Religion \_\_\_\_\_ Race \_\_\_\_\_

Children: If you have children, please indicate their ages \_\_\_\_\_

What is the occupation of your spouse or parent? \_\_\_\_\_

Are you receiving Veterans payments? Yes \_\_\_ No \_\_\_ How much? \_\_\_\_\_

Are you receiving Social Security payments? Yes \_\_\_ No \_\_\_ How much? \_\_\_\_\_

Is any other agency helping you? Yes \_\_\_ No \_\_\_ How much? \_\_\_\_\_

What agency? \_\_\_\_\_

Can you propel a wheelchair? Yes \_\_\_ No \_\_\_ With one foot? \_\_\_ Two feet? \_\_\_  
With one arm? \_\_\_ With both arms? \_\_\_ Backwards? \_\_\_ Forwards? \_\_\_  
Manual? \_\_\_ Power-driven? \_\_\_

If you have use of your arms or hands, do you do the following?  
Feed yourself with assistive device \_\_\_? Without assistive device \_\_\_?  
Type with assistive device \_\_\_? Without assistive device \_\_\_?  
Write with assistive device \_\_\_? Without assistive device \_\_\_?  
Reach beyond lapboard area? \_\_\_ Yes \_\_\_ No Dress yourself? \_\_\_ Yes \_\_\_ No

Ideally, if someone would set you up with breathing aids and assistive devices, could you feed yourself? \_\_\_ Yes \_\_\_ No; Type? \_\_\_ Yes \_\_\_ No  
Write? \_\_\_ Yes \_\_\_ No

If you use an assistive device, is it: (1) Sling \_\_\_? (2) Warm Springs feeder \_\_\_? (3) Artificial muscle \_\_\_? (4) Hand splint \_\_\_?  
(5) Abdominal breather \_\_\_? (6) Other \_\_\_\_\_

If you are now living at home, indicate the hours per week you employ any of the following, now and in the past: (1) Housekeeper, now \_\_\_ past \_\_\_  
(2) Attendant, now \_\_\_ past \_\_\_ (3) Homemaker service, now \_\_\_ past \_\_\_  
(4) Visiting nurse, now \_\_\_ past \_\_\_ (5) Driver or pusher, now \_\_\_ past \_\_\_  
(6) Baby sitter, now \_\_\_ past \_\_\_ (7) Secretary, now \_\_\_ past \_\_\_  
(8) Nurse, PN, now \_\_\_ past \_\_\_ (9) Nurse, RN, now \_\_\_ past \_\_\_  
(10) Other \_\_\_\_\_, now \_\_\_ past \_\_\_

If you have reduced the amount of help you employ, what was the reason?  
(1) financial \_\_\_ (2) Further rehabilitation \_\_\_ (3) Children growing older \_\_\_ (4) Other \_\_\_\_\_

If you are now living in a Hospital or Nursing Home, please indicate:

- (1) Since onset, have you lived at home? Yes \_\_\_ No \_\_\_ How long? \_\_\_\_\_
- (2) Would you have been able or willing to remain at home if attendant care had been provided? Yes \_\_\_ No \_\_\_
- (3) Is it private \_\_\_? City \_\_\_? County \_\_\_? State \_\_\_? Veterans \_\_\_? Church \_\_\_? Other \_\_\_\_\_?
- (4) How long have you lived in this hospital or nursing home \_\_\_\_\_?
- (5) What is the cost per day \_\_\_\_\_?
- (6) How many other respos there now \_\_\_\_\_? How many other quads \_\_\_\_\_?

How many hours per day are you left alone? \_\_\_\_\_

In your present setup, is the help you receive: (1) Adequate for your needs? Yes \_\_\_ No \_\_\_ (2) Bare minimum? Yes \_\_\_ No \_\_\_ (3) Inadequate? Yes \_\_\_ No \_\_\_ (4) Too little for safety? Yes \_\_\_ No \_\_\_ (5) Worse than that? Yes \_\_\_ No \_\_\_

Would your problem be solved if you could go to live in an ideal type residence-nursing home? Yes \_\_\_ No \_\_\_ In the future? Yes \_\_\_ No \_\_\_

If necessary financial assistance could be obtained for you, describe briefly where your needs would be the most vital:

Attendant care \_\_\_\_\_

Setting up a home business \_\_\_\_\_

Vocational guidance \_\_\_\_\_

Education \_\_\_\_\_

Equipment \_\_\_\_\_

Other \_\_\_\_\_

Since onset of paralysis, have you been a patient in a (1) Respiratory Center? Yes \_\_\_ No \_\_\_ Name of Center \_\_\_\_\_  
(2) Rehabilitation Center? Yes \_\_\_ No \_\_\_ Name of Center \_\_\_\_\_  
Other \_\_\_\_\_



Are you still associated in any way with a (1) Respiratory Center?  
Yes \_\_\_ No \_\_\_ Name of Center \_\_\_\_\_  
(2) Rehabilitation Center? Yes \_\_\_ No \_\_\_ Name \_\_\_\_\_

Do you have any arrangements with a Respiratory Center or Hospital for  
emergency treatment? Yes \_\_\_ No \_\_\_ Name of Center or Hospital \_\_\_\_\_  
Approximately how many miles from you? \_\_\_\_\_

Do you have hospitalization insurance? Yes \_\_\_ No \_\_\_  
If not, what arrangements do you have for paying for your hospitaliza-  
tion? \_\_\_\_\_

T J G C E N S U S  
Part II

The information you give on this questionnaire will be of great help to all totally disabled and will aid TJG in future issues. We will appreciate your answering as many questions as apply to you. Leave blank, if they do not apply. Simply mark an "X" in the spaces provided, if they do apply. The questions are arranged so that the more personal questions are on the second page. The second page, therefore, may be done more privately, or not answered at all, if you are sensitive.

BREATHING INVOLVEMENT:

Vital capacity: reclining \_\_\_ sitting \_\_\_ frogging \_\_\_?  
Dependence on aid: never \_\_\_ formerly \_\_\_ at present \_\_\_? If at present, check the following: full time \_\_\_ night & part of day \_\_\_ night only \_\_\_ 1 to 3 hrs. unassisted \_\_\_ 3 to 12 hrs. unassisted \_\_\_ average hrs. of frog breathing \_\_\_  
Equipment: Day: Lung \_\_\_ chestpiece \_\_\_ rocking bed \_\_\_ pos. pres. oral \_\_\_ p.p. trach \_\_\_  
Night: Lung \_\_\_ chestpiece \_\_\_ rocking bed \_\_\_ pos. pres. oral \_\_\_ p.p. trach \_\_\_  
If your trach is open, are you aspirated?: Often \_\_\_ only with colds \_\_\_?  
Do you take care of mucus by: aspirator \_\_\_ frogging \_\_\_ increase resp. pres. \_\_\_ other \_\_\_?

SLEEPING:

Do you sleep on your back \_\_\_ side \_\_\_ abdomen \_\_\_?  
Are you moved during the night \_\_\_ never \_\_\_ once \_\_\_ twice \_\_\_ thrice \_\_\_ more \_\_\_?  
Do you have someone sleeping in your room \_\_\_ nearby room \_\_\_ within sound of buzzer \_\_\_?  
Are you attended by your family \_\_\_ an attendant \_\_\_ other \_\_\_\_\_

INVOLVEMENT OF LEGS & ARMS:

Can you move rt. hand \_\_\_ rt. arm \_\_\_ left hand \_\_\_ left arm \_\_\_?  
Can you move rt. foot \_\_\_ rt. leg \_\_\_ left foot \_\_\_ left leg \_\_\_?  
wiggle toes \_\_\_ fingers \_\_\_?  
Can you feed yourself \_\_\_ dress yourself \_\_\_ propel wheelchair \_\_\_ type \_\_\_ write \_\_\_?  
Do you use mouthstick \_\_\_ balance feeders \_\_\_ slings \_\_\_ toes \_\_\_ other \_\_\_\_\_  
Can you walk \_\_\_ walk assisted \_\_\_ stand alone \_\_\_ use leg braces \_\_\_?

EQUIPMENT:

If you do not have the following special equipment, leave blank. If you have it, and use regularly, mark with an "X." If you have it, never use it, "XX."  
Telephone \_\_\_ typewriter \_\_\_ standing table \_\_\_ lift \_\_\_ reading rack \_\_\_ page turner \_\_\_ ramp \_\_\_ elevator \_\_\_ feeders \_\_\_

generator \_\_\_ aspirator \_\_\_ portable respirator \_\_\_ respirator  
batteries \_\_\_ corset \_\_\_ artificial muscle \_\_\_ hand splint \_\_\_  
leg braces \_\_\_ other \_\_\_\_\_

HOUSING:

Do you live in a house \_\_\_ apartment \_\_\_ hospital \_\_\_ rest home \_\_\_  
other \_\_\_\_\_?  
Is your room a bedroom \_\_\_ converted other - dining room \_\_\_ living  
room \_\_\_?  
Was it specially built for your needs \_\_\_ shared with another  
patient \_\_\_ a ward \_\_\_?  
Is it large enough for your needs \_\_\_? Are you in the same com-  
munity as pre-paralysis \_\_\_?  
If you live at home, is it your home \_\_\_ parent's home \_\_\_ boarding  
\_\_\_ other \_\_\_\_\_

ACTIVITIES:

How do you transfer from bed to chair: hydraulic lift \_\_\_ slide \_\_\_  
roll \_\_\_? carried by one person \_\_\_ more than one \_\_\_ own muscle  
power \_\_\_?  
Do you get up in your chair: daily \_\_\_ on special occasions \_\_\_  
never \_\_\_? Can you sit comfortably for about: 1 hr. \_\_\_ 2 hrs. \_\_\_  
3 hrs. \_\_\_ 4 hrs. \_\_\_ 5 hrs. \_\_\_ more \_\_\_?  
Do you get outdoors every \_\_\_ in good weather \_\_\_ once a week \_\_\_  
rarely \_\_\_?  
Do you go out socially: yes \_\_\_ no \_\_\_. Who assists you in social  
transportation: family \_\_\_ agency \_\_\_ friends \_\_\_ other \_\_\_  
Do you have physical therapy: daily \_\_\_ weekly \_\_\_ at home \_\_\_ at a  
hospital \_\_\_? No \_\_\_. Who gives you your therapy: family \_\_\_ a  
local agency \_\_\_ volunteer \_\_\_ other \_\_\_  
Do you take a tub bath? Yes \_\_\_ No \_\_\_. If yes, do you have special  
arrangements? \_\_\_\_\_

HELP:

Do you employ a nurse \_\_\_? hrs. per week \_\_\_? salary per week \_\_\_?  
Do you employ an attendant \_\_\_? Male \_\_\_? Female \_\_\_? hrs. per  
week \_\_\_? weekly salary \_\_\_?  
Do you employ a housekeeper \_\_\_? hrs. per week \_\_\_? salary per week  
\_\_\_? Does he or she live in: attendant \_\_\_? housekeeper \_\_\_?  
nurse \_\_\_? If so, does he or she have own room \_\_\_? trailer \_\_\_?  
connecting apartment \_\_\_?  
How have you found your help: employment agency \_\_\_? friends \_\_\_?  
advertise \_\_\_? through the hospital \_\_\_? social worker \_\_\_? other  
\_\_\_\_\_  
Does your family help with your physical care? Yes \_\_\_ No \_\_\_. Who?  
Father \_\_\_? Mother \_\_\_? Wife \_\_\_? Husband \_\_\_? Children \_\_\_? Other  
\_\_\_\_\_  
Does your family care for you: evenings \_\_\_? weekends \_\_\_? weekdays  
\_\_\_? With your dressing \_\_\_? feeding \_\_\_? grooming \_\_\_? Do they set  
up for typing \_\_\_? reading \_\_\_? telephoning \_\_\_? etc.? \_\_\_\_\_

If not employed, do you have plans or ideas for self-support? Yes \_\_\_  
No \_\_\_.  
If employed pre-paralysis, what did you do \_\_\_\_\_?

HOBBIES:

"Ham" \_\_\_? Stamp collecting \_\_\_? Painting \_\_\_? Chess \_\_\_? Music \_\_\_?  
Voicepandance \_\_\_? Other \_\_\_\_\_?

VOLUNTEER ACTIVITIES:

If you are able and willing to enlarge on any of these questions asked,  
on a separate sheet of paper, we would be more than pleased. Consider,  
also, the following questions: Would you give us an approximate sched-  
ule of your average day? The daily schedule of your help? Have you any  
special claim to fame in the "horizontal" world? Have you designed or  
made any special equipment? Any suggestions about legislation for the  
totally disabled? Income tax reduction? Federal or State aid? Would  
you write to your Congressman to help support legislation for the total-  
ly disabled? What suggestions do you have ??????

FINANCIAL ASSISTANCE:

Indicate the assistance you have received since you were discharged from your initial hospitalization by entering the appropriate letters in columns below:

Regular assistance - "R" Occasional assistance - "O" Temporary assistance - "T" One Shot Deal - "S" Past assistance, now discontinued - "P"

	atten-	child-	equip-	hosp.	house-	house-	med.	
Rec'vd for:	dant	ren	ment	care	keeper	ing	trt.	Other
Rec'vd from:								
Church	.	.	.	.	.	.	.	.
Community	.	.	.	.	.	.	.	.
County/state	.	.	.	.	.	.	.	.
Employer, pre-								
paralysis	.	.	.	.	.	.	.	.
Fraternal/lodge	.	.	.	.	.	.	.	.
Insurance	.	.	.	.	.	.	.	.
Nat. Foun.	.	.	.	.	.	.	.	.
Relatives	.	.	.	.	.	.	.	.
Social Sec.	.	.	.	.	.	.	.	.
Veteran, ex-								
Serviceman	.	.	.	.	.	.	.	.
Other, specify	.	.	.	.	.	.	.	.

Are you at present investigating other agencies for support? Yes \_\_\_  
No \_\_\_ Specify \_\_\_\_\_

MARITAL STATUS:

Single \_\_\_ Married: before paralysis \_\_\_ after \_\_\_? widowed \_\_\_?  
Divorced: before paralysis \_\_\_ after \_\_\_? If after, was paralysis a factor? Yes \_\_\_ No \_\_\_  
Children: 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_? Any born post-paralysis? Yes \_\_\_ No \_\_\_  
Are the children living with you? Yes \_\_\_ No \_\_\_ . With husband \_\_\_ wife \_\_\_ relatives \_\_\_?

EDUCATION:

Pre-paralysis: grade school \_\_\_ high school \_\_\_ college \_\_\_ Other \_\_\_  
After paralysis: grade school \_\_\_ high school \_\_\_ college \_\_\_ other \_\_\_  
(If after paralysis: by tutor \_\_\_ home study \_\_\_ correspondence \_\_\_ telephone \_\_\_ other \_\_\_)  
What fraternal or honorary organizations \_\_\_\_\_  
Trained in any language other than your own \_\_\_\_\_

EMPLOYMENT:

If presently employed, what do you do \_\_\_\_\_  
part time \_\_\_? full time \_\_\_? home project \_\_\_? Are your average earnings per month: under \$50 \_\_\_? under \$100 \_\_\_? more than \$100 \_\_\_? more than \$200 \_\_\_?