

# Some Parameters for Social Policy in Disability: A Cross-National Comparison

LAWRENCE D. HABER

*Rational approaches to policy problems of disability require some level of common agreement on both the conceptual basis and the measurement of disability. Service organizations, however, define disability in a variety of ways, depending on their interests, orientation, objectives, or jurisdiction. The limitations of specific program criteria emphasize the need for inclusive and comparable measurements of disability in order to examine the relationship to and the effects of public policy. Measurement problems are reviewed, and prevalence estimates from the Social Security Survey of the Disabled are compared to those of the National Health Interview Survey and other studies in the United States. These studies, which show a considerably higher prevalence of disability and severe disability than does the National Health Interview Survey, also indicate that the identification methods used are reliable and consistent. Disability and impairment estimates from five nations are compared, and the differences among the studies are reviewed in terms of their possible effects on the level of disability reported. Also examined are data on the differences between client populations and the disabled population at large. This paper points out the need for greater emphasis on the behavior processes of normalization and adaptation in disability. The study comparisons suggest the need for national comparative studies using common methods and criteria to provide a better basis for understanding and dealing with the problems of disability.*

## Introduction

From the perspective of social planning, identification of the size and scope of the policy problem is a basic requirement for rational allocation of scarce goods and resources. To arrive at a common understanding of the scope and nature of the problems of physical and mental disability, however, some level of agreement on what we mean by disability is needed.

Conceptually, disability may be defined as the pattern of behavior arising from the loss or reduction of the ability to perform expected or specified role activities because of a chronic disease or impairment. In this sense, disability may be considered as a behav-

ioral response to functional impairment along a continuum of health or fitness.

Operationally, the particular purposes to be served require both the specification of cutting points to distinguish certain degrees of incapacity from less severe or extensive degrees of capacity limitation and the establishment of criteria by which to categorize the people who represent legitimate objects of social concern.

Each agency, program, and service group, however, defines disability in terms of its particular competence and jurisdiction. Organizations tend to emphasize that aspect of the client or patient which comes closest to their service objectives or orientation, and to add restrictive criteria unrelated to the disability itself. The particular criteria which evolve reflect the objectives and goal definition of the sponsoring organizations and subsume varying degrees of legal, administrative, clinical, and subjective assessments of capacity and loss or reduction of capacity to meet specified standards of performance.

Program definitions, therefore, vary widely in the extent to which they include or exclude segments of the disabled population. Some observers have suggested that program data on social problems are often more revealing about the nature of the program than about the prevalence of the problem (Kitsuse and Cicourel, 1963). The report on *Social Security Programs Throughout the World* (Social Security Administration, 1971), for example, lists about 100 program definitions for invalidity benefits alone, few of which are identical. It is also apparent that programs with similar definitions may vary widely in the nature of the proofs required and in the population eligible to qualify under different sets of evidentiary requirements.

General measures of the prevalence, distribution, and composition of the disabled in society are, as a consequence, necessarily indeterminate and ambiguous in terms of any specific program. The limitations of specific program criteria, however, emphasize the need for reliable measurement of broad, inclusive levels of disability to examine the effectiveness of the service programs in reaching their designated populations.

## Conceptual Framework

In recent years, there has been increased interest in the conceptualization of disability (American Medical Association, 1958, 1967;

Daitz, 1965; Burk, 1967; Haber, 1967; Haber and Smith, 1971; Nagi, 1969; Friedson, 1965; Ruesch and Brodsky, 1968) and in data on the basic parameters of disability. Despite the many divergencies and differences that still exist, there is substantial agreement that disability involves more than disease, injury, or medical impairment. Increasingly, the study of disability focuses on the outcome of the interaction between impaired ability and the expectations or requirements for performance. In this context, disability reflects the degree to which the individual's expected capabilities are limited by direct or intrinsic results or residuals of impairment and the extrinsic residuals of impairment imposed by social responses to the situation (Daitz, 1965). Disability may be differentiated from illness, disease, injury, and impairment by the nature of the consequences. Illness and illness behavior do not necessarily represent prolonged loss of capacity; complaints or symptoms may suggest the need for diagnosis and medical care, but not necessarily for limitations in required performance. Illness, disease and injury, impairments, and functional limitations constitute necessary preconditions to the development of disability, but they do not specify performance requirements nor the adaptive potential of the individual.

Disability may be differentiated from these predisposing factors as recognized incapacity (or significant capacity limitation) in the ability to meet performance expectations. The recognition of incapacity also provides a basis for modification of role requirements and for behavioral alternatives (Haber and Smith, 1971). The extent and the recognition of incapacity are, of course, directly affected by the residual capabilities of the individual, as compensating factors, and by the flexibility of the situational requirements.

The notion of duration is also critical to the concept of disability as a process of behavior modification. (Short-term incapacity and acute illness do not entail persistent role modification and development of continuing behavioral alternatives.) Impairment residuals must be expected to be permanent or of extensive duration to effect extensive and continuing changes in patterns of individual and social behavior (Haber and Smith, 1971). The adjustments and intervention techniques appropriate to acute illness or injury focus on treatment and exemptions, in contrast to the long-term adaptations required to normalize role relationships and activities that are responsive to capacity limitations. With the passage of time, the psychological overlays of individual behavior and the organizational responses to incapacity also tend to narrow the adaptive opportunities of the functionally impaired individual.

## Measurement Problems and Methods

Comparison of a variety of methods for determining the prevalence and incidence of chronic diseases (Wilber, 1967) suggests that, despite their respective virtues, each method has serious limitations. Hospital and physician records suffer from lack of uniformity and are limited to treated cases. Laboratory screening methods are incomplete diagnostically. Health interview surveys understate the prevalence of disease and are limited by respondent recall.

Limitations of the methods for studying chronic disease prevalence are even more pertinent to the study of disability. Disability judgments cannot be based on purely medical grounds but must also take into account an array of occupational, personality, social, and environmental factors. Operating programs, such as social security, public welfare, and veterans disability programs, also attempt to take these factors into consideration in their disability determination. The scope and nature of their assessment is, however, circumscribed by legislative and administrative intent.

Despite the limitations of self-evaluation, the sample survey interview approach is frequently the most efficient and only feasible means of establishing the relative prevalence and distribution of disability in the population. The individual's perception of the limitations imposed by chronic disease and impairment may be evaluated from his reported activities and behavior. These observable facts can form the basis of relatively objective measures of physical well-being (Simmons, 1962).

Given similar definitions of disability for a population, estimates of the prevalence of disability may nevertheless be affected by the particular identification instruments and interview techniques. In cross-national studies, of course, differences in the cultural meanings and definitions of disability, health, and impairment must also be considered. The problems involved may be illustrated by comparing several studies of disability conducted in the United States and in other countries.

## The Social Security Survey on the Disabled

### *Survey method*

Following a pilot study of disability beneficiaries (Haber et al., 1964), the Social Security Administration (SSA) undertook a ma-

major national study of disability in the working-age population. The objectives of the study included description of the prevalence, nature, and extent of work-limiting disability; examination of the relationship of antecedent and onset factors to the severity of the disability and subsequent work experience, and the effects of disability on income, work adjustments, medical care, rehabilitation, and family relationships.

The study was conducted through two surveys: a household survey for the noninstitutionalized population and an institutional survey. Field work for the survey of the noninstitutionalized adult population was carried out by the U.S. Bureau of the Census during the spring of 1966. A multiframe area probability sample was selected to represent the noninstitutionalized, civilian population aged 18-64 of the United States. The survey was conducted in two stages. First, all sample households were screened to identify people aged 18-64 with health-related limitations in their ability to work or do housework, whose condition had lasted longer than three months. Second, personal interviews were conducted with the adults identified as disabled in order to verify the disability statement and to collect data on the nature, severity, onset, and duration of the disability, and on the work experience, medical care, rehabilitation services, income, family relationships, and demographic characteristics of the disabled person. The first stage was conducted by mail questionnaire. The second stage was conducted by personal interview. The sample and study design have been described in Haber (1968a; 1971).

The disability classification procedure of the National Health Interview Survey (NHIS) was used as the starting point in developing an identification instrument suitable to the survey objectives of the NCHS (National Center for Health Statistics, 1964; 1966), but for the purpose of this study the NHIS methods had several shortcomings. Only those who reported a chronic condition or impairment were asked the disability questions in the NHIS interview. The serious understatement of chronic conditions shown in other studies suggested that the prevalence of disability was also understated by this procedure (Commission on Chronic Illness, 1957; Trussell and Elinson, 1959). The disability questions for women related only to the "usual activity" in the survey year and did not take account of the women engaged in housework who were prevented by chronic conditions from continuing or starting work activity (Haber, 1967). There was also an indication, in other studies,

that the use of proxy respondents led to underreporting of disability (Morgan et al., 1962:220–221).

An extensive series of pretests and pilot studies was undertaken to develop an efficient means of identifying people limited in their ability because of health conditions and chronic impairments. The pretests, as reported (Haber, 1967; 1968a), led to the mail-screening instrument used to identify the disabled persons; persons identified as disabled in the screening questionnaire were later contacted for personal interview. Of these interviewed, one to three months later, 95 percent were reported as disabled.

### *Definition of disability*

Disability was defined in this study as a limitation in the kind or amount of work (or housework) resulting from a chronic health condition or impairment lasting three months or longer. To reduce the effects of uncertainty about the nature and prognosis of disability during the early or transitional stage, the analysis was restricted to persons disabled longer than six months. The disability classification was based on the respondent's evaluation of his capacity for work, as reported in a set of work qualification questions: *severely disabled*—unable to work altogether or unable to work regularly; *occupationally disabled*—able to work regularly, but unable to work full time or unable to do the same kind of work as before the onset of disability; and *secondary work limitations*—limitations in the kind or amount of work performed, but which did not restrict full-time work in the same occupation as before onset.

Although disability has been defined very broadly, in relation to performance expectations, work limitation criteria were considered more appropriate to the program and policy objectives of the study and more rigorous than other role activities. The survey population was limited to adults under age 65, the major working years during which disability has the most direct bearing on income and employment. (It is also difficult, conceptually and methodologically, to separate work limitations from other age-related behavior among children and the aged.)

### *Disability prevalence in the United States*

On the basis of these procedures, the survey found that more than one-sixth of the noninstitutional population of working age in the

United States was limited in the ability to work because of a chronic health condition or impairment; about one-third of the disabled (or 6 percent of the population) was severely disabled. Demographic and socioeconomic factors had a direct bearing on the predisposition towards disability and on the prevalence rates. The prevalence of disability increased sharply with age and decreased with education (Table 1). Members of minority races were significantly more likely to be disabled than white persons.

The data show that social attributes which limit or reduce the adaptability of the individual tend to increase the likelihood of work limitations and the severity of disability. The disabled, and particularly the severely disabled, in the U.S.A. were older, less educated, and less occupationally skilled than the nondisabled population (Allan and Cinsky, 1972). The disabled were also heavily over-represented in farm and rural areas. As a group, they represent a population who, aside from physiological impairment and incapacity, would have difficulty in obtaining adequate jobs and adequate incomes.

Close to three-fourths of the severely disabled men were no longer employed or seeking employment; only 4 percent were employed full time. Men with occupational or secondary work limitations were more likely than the nondisabled to have part-time work or to be unemployed. Their earnings and family incomes were lower, on the average, than those of the nondisabled. In total, one-fourth of the disabled adults had family incomes below the poverty level (Haber, 1973). Two-fifths of the severely disabled were poor, compared with a tenth of the nondisabled population of working age. The median family income of severely disabled married men, for example, was less than half the national average (U.S. Bureau of the Census, 1967, 1968).

The disability prevalence levels reported in this survey are significantly higher than those found in the NHIS. Approximately twice as many persons were found to be disabled in 1966 as the number estimated by the NHIS for 1965–1967 (National Center for Health Statistics, 1971)—18 million compared with about 9 million disabled persons.

The disability criteria in the two studies are the same for men; the differences in prevalence rates are, therefore, primarily the result of differences in study methods, aside from sampling error. The data in Table 2 show that the estimates of men “unable to

TABLE 1

Prevalence of disability by selected social characteristics:  
 Percentage distribution of the civilian noninstitutional population  
 aged 18-64 by severity of disability, Spring 1966

Selected social characteristics	U.S. population, 1966 (thousands)	Percentage distribution					
		Total	Non-disabled	Disabled			
				Total	Severe	Occupational	Secondary
Total	103,085	100.0	82.8	17.2	5.9	4.9	6.4
<b>Age</b>							
18-34	40,574	100.0	92.2	7.8	1.7	1.8	4.3
35-44	23,693	100.0	85.7	14.3	4.7	4.0	5.6
45-54	21,896	100.0	76.8	23.2	6.9	8.2	8.1
55-64	16,922	100.0	63.8	36.2	16.4	9.1	10.7
<b>Sex</b>							
Men	48,980	100.0	82.8	17.2	4.7	4.9	7.6
Women	54,105	100.0	82.8	17.2	7.0	4.8	5.4
<b>Marital status</b>							
Married	75,591	100.0	83.5	16.5	5.0	5.1	6.4
Divorced/ separated	7,080	100.0	78.7	21.3	9.7	4.7	6.9
Widowed	3,808	100.0	59.8	40.2	19.0	10.0	11.2
Single	16,606	100.0	86.6	13.4	5.4	2.6	5.4
<b>Race</b>							
White	91,961	100.0	83.6	16.4	5.3	4.7	6.4
Negro and other	11,124	100.0	75.7	24.3	11.2	5.9	7.1
<b>Education</b>							
Less than 8 years	11,261	100.0	57.4	42.6	20.8	10.9	10.9
8 years	11,272	100.0	76.6	23.4	9.1	7.5	6.8
9-11 years	20,697	100.0	82.8	17.2	5.6	5.2	6.4
12 years	37,983	100.0	89.6	10.4	2.5	3.0	4.9
College	21,872	100.0	88.4	11.6	2.5	2.8	6.3



TABLE 2

Comparison of extent of disability by SSA and NHIS  
disability identification procedures

	1966 SSA (Age 18-64)			1965-1967 NHIS (Age 17-64) <sup>a</sup>		
	Total	Men	Women	Total	Men	Women
U.S. population (millions)	103.1	49.0	54.1	106.9	50.8	56.1
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Disabled	17.2	17.2	17.2	8.2	9.5	7.0
Unable to work	3.6	3.3	3.9	1.4	2.2	0.7
Work limited	13.6	13.9	13.3	6.8	7.3	6.3
Irregular work only	2.3	1.4	3.1	—	—	—
Occupational	4.9	4.9	4.8	—	—	—
Secondary	6.4	7.6	5.4	—	—	—
Not disabled	82.8	82.8	82.8	91.8	90.5	93.0

<sup>a</sup> National Center for Health Statistics (1971).

work” are relatively close; the estimates of partial “work limitations” from the SSA study, however, are approximately twice that of the NHIS survey, 13.9 percent and 7.3 percent respectively (see also Haber, 1967).

The prevalence estimates for women in the two studies include differences in disability criteria as well as in survey methods and are therefore difficult to compare. The change in the operational definition of disability for women, to include work as well as housework limitations, substantially increased the number of women identified as disabled. Thus the SSA disability estimates for women were much higher than those of the NHIS, particularly for the “unable to work” category. Differences in the overall disability estimates for women are attributable to the differences in both methods and criteria.

Program comparisons and the pretest data strongly suggest that the SSA measurement procedures identify work limitations that are in part concealed by the requirements of other disability-report-

ing procedures and that these estimates provide a more reasonable prevalence estimate for long-term severe disability in the United States. For example, the NHIS estimate of one and a half million people "unable to work," was less than the number of people known to be receiving long-term disability benefits based on total disability. This estimate makes no allowances for other severely disabled people who are not qualified under the nonmedical provisions of these programs or who do not meet the evidentiary requirements. On the other hand, the SSA survey found that about half of the severely disabled were beneficiaries of these disability programs.

Differences between the SSA and NHIS estimates of partial disability are more difficult to evaluate than the estimates for severe disability. Partial disability is more subject to change in respondent evaluation than severe disability and appears to be more responsive to work, labor market, and other environmental changes, to changes in the respondent's health, and to self- and proxy-respondent differences in evaluation. Partial disability is less likely to be clearly visible to others than more severe work limitations. There is more likely to be error and ambiguity in the reporting of partial disabilities, particularly with proxy respondents (see also Morgan et al., 1962:220-221; Dawis et al., 1958:19).

Two recent surveys of the older population, which used similar screening techniques, show a very high level of consistency with the SSA survey findings (Motley, 1972; Parnes et al., 1968). In each of these studies, the disability prevalence estimates for older men are considerably higher than that of the NHIS (Table 3). These identification methods, therefore, appear to be relatively reliable. Other studies now in progress, however, also indicate that partial limitations are much less stable and more subject to change than severe disabilities.

## Cross-National Comparisons

As the U.S. survey data show, the prevalence of disability varies substantially by strata and attributes within a population, when the same definitions and measurement methods are used. When different populations are studied, with different study criteria and different research methods, comparisons of prevalence rates among populations or nations become relatively meaningless. To what extent would the populations differ in disability prevalence if the same cri-

TABLE 3

Prevalence of disability in the United States:  
Comparison of four surveys,  
older men in the noninstitutionalized population

Survey and age group	Percentage distribution, men				
	Total U.S.	Not limited in work	Total disabled	Limited in kind or amount of work	Unable to work
1966 Survey of the Disabled (age 55-64)	100	64	36	26	10
1969 Retirement History Survey (age 58-63) <sup>a</sup>	100	65	35	23	12
1969 Health Interview Survey (age 58-63) <sup>b</sup>	100	76	24	12	12
1966 Survey of the Disabled (age 45-61)	100	75	25	20	5
1966 Labor Market Survey (age 45-59) <sup>c</sup>	100	73	27	23	4

<sup>a</sup> Motley (1972).

<sup>b</sup> Special tabulations from NHIS (Motley, 1972).

<sup>c</sup> Parnes et al. (1968).

teria and methods were used? Are these differences in prevalence rates the result of different standards of assessment among nations or of the confounding of cultural standards with differences in population composition, such as age, sex, education, or occupation? The effects of the cross-national differences in the levels of health and impairment in the populations and in the distribution of institutional facilities for the identification, legitimation, and normalization of incapacity should also be considered. Until reasonably similar criteria and research methods are used to identify the disabled and to examine population behavior and composition, comparison of disability prevalence rates among nations is, at best, a speculative exercise.

The studies examined here, from the United States, Australia, Denmark, Great Britain, and Israel, reflect to some degree aspects of all of these problems. The survey estimates range from a high of

TABLE 4  
Prevalence of disability, handicap, limitation,  
or impairment in five countries

Study population	Percent of specified population
U.S.A., 1966 (age 18-64) <sup>a</sup>	
Disabled	17.2
Severe	5.9
Occupational	4.9
Secondary	6.4
Australia, 1968 (age 15-64) <sup>b</sup>	
Chronic limiting condition	8.4
Denmark, 1961-62 (age 15-61) <sup>c</sup>	
Physically handicapped	6.5
Great Britain, 1968-69 (age 16-64) <sup>d</sup>	
Impaired	3.9
Handicapped	1.2
Israel, 1965-66 (men age 14-64, women age 14-59) <sup>e</sup>	
Vocationally handicapped	2.9

<sup>a</sup> Haber (1968a; 1971).

<sup>b</sup> Ehrlich et al. (1969).

<sup>c</sup> Anderson (1964a; 1964b; 1966).

<sup>d</sup> Harris et al. (1971) and Buckle (1971).

<sup>e</sup> Nizan and Avidor (1969).

17.2 disabled persons per 100 population aged 18-64, in the United States, to a low of 1.2 handicapped person per 100 population aged 16-64, in Great Britain (Table 4). These differences raise many questions about the extent to which the estimates represent differences in behavior, in the populations studied, and in the measurement process. Given the relative homogeneity of the cultural and industrial orientations of the nations studied, one must wonder what the range of variation across the entire population of nations would be, if such similar nations differ to the extent shown in these studies.

Although a critical examination of the methods and disability criteria of these studies is beyond the scope of this paper, a few conceptual and methodological difficulties can be pointed out.

First, these five studies use five or more different concepts and

criteria for limitation, ranging from the Israeli criteria for "vocational handicaps" to the Australian definition of a "chronic limiting condition." The United States study includes only adults whose limitations affect their ability to work. The British definition of "handicaps" relates to restrictions of activity caused by the loss of functional ability, but focuses on limitations in personal care. The Danish study uses a very inclusive concept of handicaps, but excludes those with mental disorders. Physical handicaps as defined in this study (Andersen, 1964a) include:

. . . protracted physical disease or defect of such a degree that an unskilled unmarried worker, without support from his surroundings and with mental reserves and energy a little below average, normally would have difficulty in coping with daily life on an equal footing with others if he were suffering from the disease or defect in question.

The British social survey focused on loss of limbs and limitations in personal care and mobility in order to identify persons with impairments; a closing question on residual limitations asked, "Does anyone in your household have some permanent disability including blindness, which stops or limits their working or getting about or taking care of themselves?" The "handicapped" were classified on the basis of more extensive limitations in personal care activities (Harris et al., 1971:250, 254-262).

The qualifying questions for identification of impairment suggest that the survey may have excluded some people with work limitations who did not need assistance in personal care or who did not identify their work limitation as a "disability." A major purpose of the inquiry was to estimate the number of people who might qualify for an attendance allowance (Harris et al., 1971:13). Studies of attitudes toward the disabled have shown that the term "disabled" is of doubtful utility and may be misleading; for most people, "disabled" usually refers to obvious physical and sensory defects (Yuker et al., 1966; Bates, 1965). This may account for the high proportion of impaired and handicapped persons with musculoskeletal and central nervous system disorders reported in the British study (Harris et al., 1971:226-227).

Other factors to be considered include the effect of the age group studied on prevalence rates reported. The Danish study, for example, includes more young people, with low rates of disability,

than the U.S. study, and excludes older people aged 62–64, with high rates of disability (Haber, 1968b).

The use of screening questions directed toward chronic diseases and impairments and asked of household or proxy respondents has also been found to be conducive to understatement; a number of studies have shown that chronic conditions are substantially under-reported in surveys by a factor of one-half to two-thirds (Commission on Chronic Illness, 1957:299–328; National Center for Health Statistics, 1967). Morgan et al. (1962:220–221) also found substantial underreporting of disability among proxy respondents. These sources of underestimation of disability are present to varying degrees in the British, Danish, and Australian studies.

Comparing these findings to other data also raises some problems. The Australian study, for example, found that 24 percent of the New South Wales population (age 15–64) had a chronic condition or impairment (Ehrlich et al., 1969). By comparison, the NHIS reported that 60 percent of the U.S. population aged 17–64 had a chronic condition (National Center for Health Statistics, 1971). It is difficult to accept the idea that the rate of chronic disease and impairment in New South Wales is less than half that of the U.S. Is the health or the level of health care of the population that much better or are there other factors operating, possibly related to cultural differences in recognition or reporting of illness or impairment? Whatever the answers may be, they have a direct bearing on the level of disability reported, either as reporting biases or as substantiation of differences in disability behavior and prevalence.

The British survey estimate of 1.2 percent handicapped also raises some questions about the adequacy of the data on programs for the disabled and handicapped. Townsend (1967:1) estimates about 1.5 million people officially identified as disabled or handicapped; this is about half again as many people as the social survey found to be handicapped (Harris et al., 1971:18). This difference would suggest either that many people on the disability registers are not handicapped in terms of the survey criteria or that many handicapped people were not included in the survey prevalence estimates. The levels of disability found in Essex (Taylor and Fairrie, 1968), for a general medical practice and an industrial work force (about 13 to 10 percent, respectively, for men aged 16–64), provide an alternative basis for examining the relationship of the official programs to the prevalence of disability in the population.

The Israeli survey was intended to identify the vocationally handicapped, i.e., "persons actually not performing in full the principal activity expected for their age, sex, and marital status" and who attribute their impaired functioning to physical or mental handicaps (Nizan and Avidor, 1969:3). For men aged 18–64 this was work or military service. Only persons not working at all or working part time were considered "vocationally handicapped." The U.S. study could approximate this criteria by combining the severely disabled with the occupationally disabled limited to part-time work; when these criteria were used, the findings on the prevalence of the vocationally handicapped were very close: 4 percent of the Israeli men aged 14–64, compared to 5 percent of the American men, were unable to work regularly or full time.

In comparison with some of these studies, the U.S. data show a large proportion of the disabled with no major restrictions in physical activity—about one-fourth—and a sizable proportion able to work full time in their regular occupations. Some of these people might be considered as impaired or handicapped, rather than disabled, by the criteria used in other studies. Medical and vocational assessment might, of course, also redefine the disability status of some disabled persons as not meeting their criteria of severity of impairment or of vocational restriction (see Nagi, 1969:92–122).

Although numbers and proportions are different for each country and set of criteria, there was general uniformity among the five studies in the relationship of disability to individual attributes. The disabled or handicapped tended to be older, less educated, and less skilled than the nondisabled or the lesser disabled. For many, disability is one more complication in an unequal struggle to cope with societal demands beyond their capacities.

### Organizational Perceptions of the Population at Risk

These data, of course, reflect the composition of the disabled or handicapped population, rather than the circumscribed group with whom social service agencies have contact. Agencies may receive distorted pictures of the population at risk from their client population. The population survey data provide one means of evaluating these perceptions. The U.S. Social Security Survey, for example, shows that the disabled population who report that they have received rehabilitation services differ in several respects from those

who received no such services (Treitel, 1970). The disabled people who received these services were more likely to be young men than young women or older disabled people of both sexes. They were more likely to be severely or occupationally disabled than to have secondary work limitations. People with nervous system, musculoskeletal, mental, and visual disorders were more likely to receive services than those with cardiovascular, respiratory, or other disabling conditions.

In Israel, more than half of the vocationally handicapped had received some social services. Those who had applied for or received services had less education and fewer vocational skills and had arrived in the country more recently (Nizan and Avidor, 1969:14-19).

In Great Britain, only 7 percent of the impaired persons of working age were registered with local welfare authorities as disabled (Harris et al., 1971:43-47). Persons voluntarily registered as disabled were more likely than those not registered to be severely handicapped, younger, and in need of personal-care assistance.

Several factors were found to differentiate social security disability beneficiaries from severely disabled nonbeneficiaries in the United States. Beneficiaries were much more likely than nonbeneficiaries to be older men and less likely to be black or to have mental or musculoskeletal disorders (Haber, 1969). Beneficiaries had more extensive activity limitations and their disability was of more recent onset.

Public assistance recipients, of course, are characterized by their low economic status. They were also differentiated from other severely disabled persons by the low level of regular employment prior to the onset of disability (Brehm, 1970). Public assistance recipients were more likely to have been divorced or separated or never to have married. As a group they had considerably less education than other severely disabled adults and were much more likely, if employed, to have worked at laboring and domestic service jobs before the onset of disability.

## Conclusions

This paper has attempted to provide a perspective for examining the scope and nature of disability by reviewing the conceptual basis of social planning for disability and by examining the results of several alternative approaches to definition and measurement. Part of



the problem of disability, in terms of social planning, is its cultural and social relativity. The designation of disability involves the social processes of recognition and legitimation of incapacity for socially expected performance. As a socially defined facet of behavior, the question, "Who are the disabled?" must be answered by another question, "Disabled for what?" In defining the scope of the problem, we must also consider, "Whose problem?" The applicable definition of disability depends, to a large extent, on the purposes of the social planner, the policies and programs in question, and the resources available.

Despite the dimensions of the problem, the extent of disability has generally been understated and its effects as a major social problem have been underestimated. The focus on medical aspects of disability places emphasis on diagnosis and treatment of the condition or impairment rather than on behavioral processes of adaptation and normalization. Only in recent years has there been general interest in reexamining the conceptualization of disability and the appropriate function of rehabilitation (Kutner, 1971; Keith, 1968; Burk, 1967). Even here, however, much of the rehabilitative emphasis has been on the psychosocial functioning and motivation of the client, through *adjustment of people* to circumstance, rather than on *adaptation of the environment* to fit people. If we respond to disability as a manpower rather than a medical problem, a variety of other alternatives can be considered; in the context of industrial relations, for example, these might include union-management contracts, hiring and retention rights, job reassignment, allocation and restructuring, informal social accommodation, and pension planning. This orientation, however, has largely been formulated in terms of the older worker (Welford, 1966; Griew, 1964), with limited extension to the disabled (Giesecke, 1969).

One interesting feature shared by the national studies examined here is that they all represent pioneering efforts in a major policy area in which little systematic research has been conducted. The studies on disability uniformly show its close relationship to and strong influence on such commonly accepted and seriously regarded problems as early retirement, unemployment, underemployment, poverty, health care, and family stability. They also show that, among the disabled, there is an acute lack of awareness of and receptivity to even those services which are available.

Hopefully, these data will make policymakers and planners more aware of the nature and extent of disability as a problem and

of its bearing on such central social concerns as social welfare, employment, and income adequacy. From the diversity of criteria, measures, and methods in this small body of research, however, it is apparent that a great deal of work needs to be done in the development, evaluation, validation, and comparison of methodologies for measuring the size, scope, nature, and extent of disability. The study of comparisons presented here also suggest the need for cross-national comparative studies, as natural experiments, to make available the benefits of our cultural and social diversity in understanding and dealing with the problems of disability and society.

Lawrence D. Haber

Office of Research and Statistics

Social Security Administration

U.S. Department of Health, Education, and Welfare

Baltimore, Maryland 21235

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