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SUBCOMMITTEE ON SOCIAL SECURITY

OF THE

COMMITTEE ON WAYS AND MEANS
U.S. HOUSE OF REPRESENTATIVES

Reports of Consultants on Actuarial and Definitional Aspects of Social Security Disability Insurance

MAY 17, 1976

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INTRODUCTION

A major unresolved issue in the social security disability program is the question of whether the definition of disability itself is one of the underlying reasons for the unanticipated growth of the program. The Committee Staff Report of July 1974 stated:

> The staff believes that the Department of HEW with the assistance of skilled personnel from the State Agencies and those in the private sector with expertise in disability adjudication should explore the possibilities as to whether the definition of disability can be stated more specifically in the law or regulation, and whether more operational presumptions may be incorporated into its administration so that the definition can be more effectively applied to greatly accelerating caseloads. Both the mechanism for developing precedent materials and the material itself seem poor and should be improved. Such a task force should also reexamine the definition of disability in the context of a growing adverse cost experience and how it may apply to disability benefits provided under the new SSI program.

Pending any such action by the executive branch, the subcommittee contracted, either directly or through the Congressional Research Service, for the services of three experts in different aspects of the disability field.

Mr. Edwin Yourman has submitted an exploratory study of the feasibility of developing a more objective test for disability under the Social Security Act. Mr. Yourman, who was under a CRS contract, is formerly the Assistant General Counsel, Social Security, in the Office of General Counsel, HEW, and is now a legal research consultant in private practice. To examine the medical aspects of the disability definition, William Roemmich, M.D., for over 15 years Chief Medical Director of the Bureau of Disability Insurance, has similarly been engaged by CRS and has submitted a number of reports. The committee itself has contracted with John H. Miller, consulting actuary, who has submitted a report on the actuarial condition of the DI fund in a broad context which hopefully will give us some insight into the continuing adverse experience in the system. Mr. Miller, past president of the Society of Actuaries, has extensive experience in disability insurance in the private sector and has also developed considerable expertise in foreign disability programs.

Mr. Yourman and Dr. Roemmich have also examined a proposed draft of Department of Health, Education, and Welfare regulations on the use of nonmedical factors in disability determinations. It should be emphasized that these regulations have not been approved for "Notice of Proposed Rulemaking." The subcommittee appreciates the permission of HEW to publish the regulations in their tentative form so that Mr. Yourman's and Dr. Roemmich's commentary will have more meaning and congressional and public understanding of the issue will be enhanced.

The subcommittee also wishes to express its thanks to the Congressional Research Service for making the services of Mr. Yourman and Dr. Roemmich available. The views of all three consultants, of course, are not necessarily those of the Congressional Research Service or the subcommittee.

FEASIBILITY OF A MORE OBJECTIVE TEST FOR DISABILITY UNDER THE SOCIAL SECURITY ACT

FEASIBILITY OF A MORE OBJECTIVE TEST FOR DISABILITY UNDER THE SOCIAL SECURITY ACT

(*By* EDWIN YOURMAN*)

SUMMARY AND CONCLUSIONS

About 80 percent of worker disability allowances are made on the basis that impairments meet or equal the medical listings of the Secretary. The remaining allowances and a large percentage of disallowances, constituting about 45 percent of substantive determinations, must be made through an evaluation of vocational data. This has required a disproportionate administrative effort, produced inequality in determinations and created problems at review levels. A current proposal within the Social Security Administration to provide more specific instructions by regulations should produce some improvement in this situation.

There is a basic problem under the present statute, however, because it assumes that a determination can be made as an absolute of whether each particular individual is able to engage in substantial gainful activity. In practice the determination has to be more nearly whether failure to engage in substantial gainful activity is justified in light of the severity of the impairment and vocational ability of the individual. The gap between the theory of the statute and the realities of operation produces an undesirably high degree of subjectivity in determinations.

More reliable determinations could be made by abandoning the pretense of deciding whether each particular individual is able to engage in substantial gainful activity and instead establishing classifications which would describe the situations in which there usually would be inability to engage in such activities.

1. This report recommends that consideration be given to a statutory amendment to authorize the Secretary to establish two or more levels of severity of impairments and criteria for a vocational classification of individuals. Eligibility would be based upon meeting a severity of impairment listing for the vocational class determined under the criteria. The most vocationally disadvantaged (with age as a factor) could qualify on the basis of the lowest severity of impairment. This should reduce but would not eliminate the subjectivity of decisions. Possible statutory language is set out in the Appendix.

2. As an alternative to the above proposal, provisions similar to those now being considered for SSA regulations could be authorized by statute as the sole basis for determinations (or as the basis for determinations outside of prescribed exceptional situations).

3. Until such time as a statutory change is made, the Social Security Administration should continue with its effort to issue more specific regulations and should endeavor to gather data as to operation under them.

4. The benefit structure might be responsible for a part of the increase in the disability caseload since in many situations the total benefits payable, approach or exceed the earnings prior to establishment of disability. In addition, inflation has distorted benefit levels in favor of the younger workers as opposed to other workers with comparable recent salaries, but a longer work history.

SCOPE

This is an exploratory study of the feasibility of developing a more objective statutory test for certain disability determinations under

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*I wish to acknowledge the receipt of helpful comments from Robert Ball, Dr. William Roemmich and John Miller and from the staff of the Social Security Administration, particularly Dr. Herbert Blumenfeld, Ray Bonin, Samuel Crouch, Morton Landes and William Rivers.

Titles II and XVI of the Social Security Act. Specifically involved are determinations for the following purposes:

Period of disability, § 216(i)(1)(A);
Disability insurance benefits, § 223(d)(1)(A);
Child's benefits based upon disability, § 202(d)(1)(B);
Supplemental security income benefits, based upon disability age 18 or older), § 1614(a)(3)[1]

Present Disability Definition

The definition covered by this study provides that disability is inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment.[2] For this purpose the impairment or impairments are required to be of sufficient severity that the individual can neither perform his previous work nor, considering his age, education, and work experience engage in any other kind of substantial gainful work which exists in the national economy (i.e., in significant numbers in the region where such individual lives or in several regions of the country). The test of ability to engage in substantial gainful work which exists "in the national economy" is applicable regardless of whether such work exists in the immediate area where the applicant lives, or whether a specific job vacancy exists for him or whether he would be hired if he applied for work.

The legislative history which led to the development of this statutory test is described in the Committee Staff Report, starting at page 107. The feature of the test which leads to our inquiry is that 40 to 50 percent of the substantive allowances and disallowances require at least some vocational evaluation to determine whether the claimant has the ability to satisfactorily perform some type of work which exists in significant quantity in the economy, considering his age, education and experience, along with residual capacity.

Theoretically, basing eligibility upon a vocational evaluation has at least two legally desirable features for Title II:[3] First, it focuses upon the effect of the impairments in terminating the individual's earning capacity, just as the pre-existing provisions of Title II were concerned with the loss of earning capacity by reason of retirement or death. Second, it emphasizes that these individuals are not being given a choice between receiving benefits and working, which many individuals would have if the test were based solely upon occupational disability or existence of a medical impairment. It thus seeks to preserve the economic incentive for work although this may be undercut

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[1] Not involved here are determinations based upon the statutory tests for blindness of §§ 216(i)(1)(B), 223(d)(1)(B) and 1614(a)(2). Also excluded is the narrower disability definition under § 223(d)(2) for widow, surviving divorced wife and widower benefits and § 1614(a)(3) determinations for supplemental security income benefits in the case of individuals under 18.

[2] This study is not concerned with the durational requirement that the impairment or impairments must be expected to result in death or must have lasted or be expected to last for a continuous period of at least 12 months.

[3] For a discussion of disability concepts for various purposes (compensation, rehabilitation, income maintenance, etc.) see Laurence D. Haber "Identifying the Disabled: Concepts and Methods in the Development of Disability", Social Security Bulletin (HEW) December 1967, p. 17.

in those situations where the benefit structure provides payments which approach or exceed prior earnings.[4]

The replacement ratios shown in footnote 4 increase significantly in descending order of age of the disability beneficiary because the increases in personal earnings and in the wage computation base in recent years provide a higher "average monthly wage" for a younger beneficiary than for one who is older with a longer wage record, even though both have comparable recent wages. While outside the scope of this study, the above is noted here because a benefit structure which favors younger applicants (and particularly which gives them more spendable income than they previously earned) might have an impact on the program.[5] Moreover, it suggests examination of the benefit structure in light of the effect of worker's age in the values for disability (and survivors') insurance. Such benefits vary with worker age at the time of disability (or death) and now tend to exceed retirement benefits assuming the same wages at the time of the event which caused loss of earning capacity.

Proposed Regulations Under Present Law

This report first considers whether the current proposal to change the substantive regulations under the present law is likely to solve existing difficulties in making consistent disability determinations under the present statutory test.[6]

The SSA has furnished the Subcommittee Staff a copy of changes in the disability regulations which it presently is considering for issuance as notice of proposed rule making. Staff of SSA's Bureau of Disability Insurance state that these amendments are largely a codification of operating instructions which have developed over the years for handling disability claims through the initial and reconsideration decisions.

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[4] Maximum family benefits (reached if the wage earner has two auxiliary beneficiaries) are larger than the "average monthly wage" in most cases where the latter is under $600. Moreover, the dropout of the 5 lowest years of earnings tends to make the "average monthly wage" greater than the average amount actually earned, particularly when earnings have not exceeded the yearly maximum creditable for Social Security purposes. On the other hand, the average monthly wage may be reduced by lower earnings in years before inflation became so pronounced.

Disability Newsletter for November 1975, published by John Haynes Miller, consulting actuary, cites replacement ratios for July 1975 disability beneficiaries compared with 1974 earnings after taxes, assuming receipt of the family maximum:

1975 earnings after taxes	Age	Replacement ratio	Age	Replacement ratio	Under age	Replacement ratio
$10,442	55	0.712	40	0.796	30	0.975
$6,415	55	.997	40	1.077	30	1.259
$3,365	55	.991	40	1.063	30	1.378

The medicare benefits disability beneficiaries receive after 24 months would provide an even greater ultimate replacement value for those without comparable health or other fringe benefits. Presence of an income-earning spouse might decrease after-tax earnings and thus increase replacement ratio.

[5] The more favorable replacement ratio does not seem to be causing an undue increase in younger beneficiaries. Allowances for individuals under age 45 constituted 19.6 percent of total worker disability allowances in 1970 and 19.7 percent in 1974.

[6] The Committee Staff Report stated on page 6:

"The staff believes that the Department of HEW with the assistance of skilled personnel from the State Agencies and those in the private sector with expertise in disability adjudication should explore the possibilities as to whether the definition of disability can be stated more specifically in the law or regulation, and whether more operational presumptions may be incorporated into its accelerating caseloads. Both the mechanism for developing precedent materials and the material itself seem poor and should be improved. Such a task force should also re-examine the definition of disability in the context of a growing adverse cost experience and how it may apply to disability benefits provided under the new SSI program."

The proposed regulations would continue the use of Listings of Impairments as in the present regulations.[7] These describe impairments under headings for each of the major body systems, and for some organs and disorders. An individual who has one or more listed impairments or the equivalent in duration and severity, is presumed to be disabled "except where other evidence rebuts a finding of disability, e.g., the individual is actually engaging in substantial gainful activity".[8]

About 80 percent of State agency allowances are on the basis that the claimant meets or equals the listings.[9] Some of the claimants who do not meet or equal listings can receive an award through application of Section 404.1502(c or Section 416.902(c) of the regulations. These permit a presumption of disability for the long-time unskilled laborer in arduous work ("e.g. 35 to 40 years or more") who has a significant impairment which prevents continued performance "and, considering his age, education and vocational background, is unable to engage in lighter work". One other small group of cases, where individuals actually are engaging in substantial gainful activity, can be denied on that basis. Most of the remaining cases—the most difficult ones—are the concern of the draft regulations.[10] The disposition of these cases must take into account vocational factors if the individual has an impairment of sufficient severity to prevent performance of his prior occupation. Mr. Gregory J. Ahart of the General Accounting Office told the subcommittee on February 3, 1976, that the 10 State agencies he studied estimated that in "as many as 75 percent" of the disability determinations (allowances and denials) they must use vocational factors. The vocational consultant for the Bureau of Disability Insurance believes that 45 percent is more accurate. In any event, since state agencies now make determinations at an annual rate of almost 1½ million, it is clear that a large number of cases is involved.

Medical-Vocational Guidelines

The draft establishes medical-vocational guidelines for those with impairments severe enough to prevent performance of their past occupation. Five levels of work capability are recognized as defined in the third edition of the Dictionary of Occupational Titles, published by the Department of Labor. From other authoritative sources the regulations conclude that age, education and previous work experience are reliable indicators of whether an individual at a particular level of work capability is able to perform jobs which exist in significant

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[7] 20 CFR. appendix to Subpart P of part 404, reprinted starting on page 364 of the Committee Staff Report.

[8] 20 CFR 404.1502(a) and 404.1505, reprinted starting at page 361 of the Committee Staff Report. The regulations are general enough to support the denial of benefits on the basis that one who meets the listings is able to engage in substantial gainful activity even though he is not doing so, as where he has an unusual skill. In practice, however, benefits are rarely denied if the individual is not actually working. They might be denied if the individual is not actually working. They might be denied if the individual did in fact work after the onset of the impairment and his failure to continue is not attributable to the effect of the impairment. The Medical Director of SSA Bureau of Disability Insurance believes that this latter basis is rarely used. It may be that the severity required to meet the listings is so great that as a practical matter an individual usually would be able to connect leaving work as an effect of his impairment.

[9] SSA response to staff questions, Committee Staff Report, p. 351. On January 5, 1976, Dr. Herbert Blumenfeld, chief medical officer of the Bureau of Disability Insurance, stated the sample of cases his staff recently received showed that about 75 percent were allowed on the listings and 25 percent as a result of vocational evaluations.

[10] The discussion in the text does not cover denials on nondisability grounds, such as insufficient quarters of coverage.

numbers in the national economy within the meaning of the present statutory definition. The classifications of work capability, age, education and previous experience are explained in Sections 404.1502(b)(6)–(9) and 416.902(b)(6)–(9). The classifications of the various factors are shown on Table I.

TABLE I

Classifications Used in the

Medical-Vocational Guidelines

CATEGORY	CLASSIFICATIONS
Work Capability	Sedentary Light Medium Heavy Very Heavy
Age	Closely Approaching Retirement Age (60-64) Advanced Age (55-64)a/ Closely Approaching Advanced Age (50-54) Younger Worker (45-49) Younger Worker (18-49)b/
Education	Illiterate Non-Englishc/ Marginal Limited High School or more, no entry skill High School or more, entry skill
Previous Work Experience	None Unskilled Semi-skilled, non-transferable Skilled, non-transferable Semi-skilled, transferable Skilled, transferable

a/ Ages 55-64 are included under the general heading "advanced age," within which ages 60-64 are subclassified for some determinations.

b/ Ages 18-49 are included under the general heading "younger worker," within which ages 45-49 are subclassified for one type of determination.

c/ The guidelines state that "unable to communicate in English," does not apply if the individual can communicate in a language in general use for a substantial number of jobs in the region where the individual lives. Thus, an individual in Puerto Rico who speaks only Spanish would not be considered as adversely affected by inability to communicate in English. Proposed §404.1502(b)(7) and 416.902(b)(7).

Examples of Decisions Under Guidelines

Decisions will be possible in many situations without evaluating all factors precisely. Capacity to perform very heavy work or heavy work will be a basis for a decision of "not disabled" but this, as other determinations by use of the guidelines, is subject to additional considerations as noted under the heading "Individualized Case Situation". At the other extreme, those determined unable to perform sedentary work will be considered disabled in the absence of actually engaging in substantial gainful activity. Presumably almost all such cases would already have been determined disabled by application of the medical listings alone. Where capacity is limited to sedentary work, the guidelines indicate that the decision should be "not disabled" for all in the 18–44 age group and for all of the 45–49 age group unless the claimant (i) is illiterate or is unable to communicate in English *and* (2) is unskilled or has no work experience.

For those capable of only sedentary work who are either in the 50–54 or the 55–64 age group, the guidelines indicate a decision of "disabled" regardless of the amount of education if it "does not provide for direct entry into skilled work" and regardless of prior work experience unless the individual was skilled or semi-skilled with transferable skills.

The full range of application of the listings is shown in Table II.

TABLE II

Situations Warranting Finding of Disability

Under the Medical-Vocational Guidelines

HIGHEST WORK CAPABILITY a/	AGE b/	EDUCATION	PREVIOUS WORK EXPERIENCE
Medium	60-64	Marginal or less	Unskilled or less
	55 or over	Limited or less	None
Light	55 or over	Limited or less	Non-transferable skill or less
	55 or over	Any amount without entry skill	Unskilled or less
	50-54	Illiterate or non-English	Unskilled or less
Sedentary	55 or over	Any amount without entry skill	Non-transferable skill or less
	50-54	Any amount without entry skill	Non-transferable skill or less
	45-49	Illiterate or non-English	Unskilled

a/ No finding of disability for anyone able to perform very heavy or heavy work.

b/ No finding of disability for anyone younger than the listed age for any entry. There is no need to determine disability of those who have reached age 65.

Individualized Case Situations

The introduction to the guidelines describes two broad types of cases which require more individualized consideration than application of the factors described above. One is where the individual's "specific profile is not listed within the appendix", for example, his functional capacity might exceed the exertional requirements for light work but fail to meet those for medium work.

The other is where an individual has an impairment which does not affect exertional capacity but still constitutes an important limitation on ability to work. In this category are certain mental, sensory, and skin impairments as well as impairments which result in postural and manipulative limitations or environmental restrictions.

The guidelines provide that determinations in such cases shall be under the principles expressed in Section 404.1502(b) or 416.902(b) "giving consideration to the rules" for cases that fall within the guidelines. Only in those situations will claimants in the 18–44 age group be considered, since there are no circumstances for considering them disabled by application of the guideline specifics. Those claimants above age 44 who fail to meet the test of disability by application of the specifics also would have an opportunity to be considered as being in a special situation.

Effect of Proposed Regulations

The proposed regulations (1) make substantive rules based upon technical information about requirements for the performance of substantial gainful activity; (2) make important information available to the public about the rules to be followed when the disability determination turns on vocational factors; (3) provide clearer and more usable instructions to those who make disability determinations; and (4) establish rules binding on the Administrative Law Judges and Appeals Council who were not bound by prior comparable material issued at the Bureau of Disability Insurance level.

Beyond this, however, the probable effect of the proposal is more clouded. It will still be necessary to obtain complete and reliable medical information sufficient to ascertain the level of work capability. As is now the case, this is particularly difficult for those who do not have access to good meedical care and for those whose conditions have not stabilized. Moreover, although the terminology involved may be somewhat standardized, the information comes from diverse sources, usually from clinical records resulting from treatment of the impairment.

Such information is more useful for determining whether an individual's condition meets the medical listings than it is in determining whether he has residual capacity to perform medium, light or sedentary work. Ideally, the latter determination would be based upon a full scale work evaluation based on tests of actual performance of physical activities which simulate those required for engaging in work at various levels. Because of cost, shortage of facilities and possible danger to the applicant such tests are feasible only for a small number of cases. Accordingly, in most situations the adjuudicator must make a jundgmental decision as to the level of work an individual with the given medical history is *likely* to be able to do, rather than deciding

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whether this individual *actually* can do such work. Thus a broad judgmental element is involved which might account for some of the adjudication inconsistencies.

In addition to the opportunity for the exercise of a different judgment at the hearing level, the administrative law judge observes the individual and questions him about what he can do. Whatever the reliability of the information so elicited, it might constitute the only evidence in the record directly on that point. This, together with the differences in backgrounds of the administrative law judges and those of personnel in the State disability determining agencies, could account for many of the allowances after hearing.

Some improvement will result from the fact that under the proposed regulations a determination as to level of work capacity is not necessary except for certain combinations of age, education and previous work experience. Thus, if an individual is not determined eligible under the listings and is below age 45, an evaluation of highest work capability would not be required since he would not fall within a situation under the medical-vocational guidelines which warrants a finding of disability. The determination of work level would be required for an individual between ages 45 and 49, inclusive, only if he is unskilled and either illiterate or non-English speaking. At higher ages it would be required for a broader range of cases.[11]

The remaining factors under the proposal are age, education and previous work experience. Of these, only the age determination does not involve the exercise of substantial judgment.

The educational evaluations are explained in Sections 404.1502(b)(7) and 416.902(b)(7). The levels are "illiterate", "unable to communicate in English",[12] "marginal", "limited" and "high school graduate or more". The latter is further divided into such education which did not provide direct entry skill and that which included such skill.

The regulations would use the test of completion of the sixth grade or less as indicating marginal education and of the seventh through eleventh grades to show limited education, in the absence of evidence to the contrary.[13] This introduces an important judgmental factor. The draft regulations state that evidence to the contrary would be test results or work or other experience which might show that the actual educational ability is greater than indicated by grades completed, or by tests which show that it is less.

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[11] All cases of the types described as not requiring work capability determination would be disallowed unless the individual has an impairment which significantly affects ability to perform in areas other than the strength requirements of a job such as certain mental, sensory or skin impairments and postural, manipulative and environmental restrictions. Introduction to proposed medical-vocational guidelines of Appendix 2.

[12] In general, inability to communicate in English is equated with illiteracy. Sections 404.1502(b)(7) and 416.902(b)(7) explain that inability to communicate in English is a vocational handicap in that it prevents performance of even unskilled jobs which require conversing with peers and supervisors, reading instructions, signs, forms, etc. It states however, that the employment market in the region where the claimant lives might justify disregarding this factor as where a substantial number of jobs in the region can be performed by a person with the claimant's linguistic ability; e.g., a resident of Puerto Rico who is proficient in Spanish.

This seems out of harmony with the national employment test which requires consideration of work which exists in significant numbers in the region where the claimant lives or in several regions of the country. Social Security Act, Section 223(d)(2) and 1614(a)(3)(B).

[13] In high school and above situations the regulations state somewhat equivocally:

"In the absence of evidence to the contrary these educational capacities *may* qualify an individual for work at a semi-skilled through a skilled level of job complexity". (Emphasis added.)

They do not, however, indicate the circumstances under which SSA will take the initiative of inquiring into possible evidence to the contrary. Will such inquiry be made in every case, will it be left to the judgment of the adjudicator when to make inquiry or will certain types of cases trigger such an inquiry automatically?

The draft explains why schooling is not necessarily the ultimate test:

Lack of formal schooling is not necessarily proof that the individual is uneducated or lacks such capabilities. For individuals with past work experience, the kinds of responsibilities assumed when working may indicate the existence of such intellectual capacities although their formal education is limited. Other evidence of such capacities, for individuals with or without past work experience, may consist of daily activities, hobbies, or the results of intelligence testing. The significance of an individual's educational background may be materially affected by the time lapse between the completion of his formal education and the onset of physical and/or mental impairment(s) and by what the individual has done with his education on a work context. Formal education that was completed many years prior to onset of impairment or unused skills and knowledge that were a part of such formal education may no longer be useful or meaningful in terms of the claimant's ability to work.

The quoted matter is designed to provide a basis for escape from what otherwise might be a rigid and unjust classification. At the same time, it introduces judgmental factors which might especially benefit a claimant who has an attorney capable of producing evidence to show that after these years away from school the current educational level is very low. A mass adjudication process is ill equipped to gather this type of information to assure uniformity of treatment. Thus, the intent to give room for relief through the exercise of judgment might only serve to produce appeals to higher levels and in the end, inconsistent results.

Under the guidelines, the educational evaluation will never have to be made for an individual who is below age 45 and rarely will it be made for one who is below age 55. Thus, the educational evaluation factor will be most used for older workers whose most recent formal education would have been in the neighborhood of 40 years previously. It seems meaningless after so many years to distinguish between marginal and limited education or even to consider the completion of high school or whether the education provided for entry skills. Although Sections 223(d)(2)(A) and 1614(a)(3)(B) of the Act mandate consideration of education, is such fine-tuning required and warranted? Perhaps the statutory provision could be met by considering specifically the education completed within some stated period such as the past ten years for general education and fifteen or twenty years for vocational education. It would seem that the effect of education completed in more remote periods either would be manifest in the vocational experience or other activities during the intervening years or would no longer have relevance in considering vocational functioning.

Claims of mental, sensory, skin, environmental and postural limitations will call for even more subjective determinations under the proposed regulations. As already noted, anyone not determined eligible on the basis of the medical listings who is under age 45 would have to establish his claim on this basis, since there is no provision in the medical vocational guidelines for a decision of disability for one in this age group. The 45–49 age group also will be forced to make their case on this basis, except for those who are illiterate or unable to com-

municate in English and who are unskilled or without work experience and who are limited to sedentary work. In addition many in the older age groups will be determined "not disabled" under the guidelines and will have to be considered on the basis of showing these limitations.

There is no accurate way to gauge the number of cases which will fall into this group for adjudication. Impairment through mental or nervous disorders is claimed as a primary or contributing cause of disability in an estimated 15 percent of cases. The provision described above might cause even more claimants to seek to make a case on that basis, particularly at the hearing level since otherwise the regulation would direct the denial of the claim.

Another unknown is how the courts will apply the *Kerner* rule if the draft regulations are adopted. *Kerner* and later cases, as explained on page 46 of the Committee Staff Report, relate to the types of situations to which the medical-vocational guidelines would be applied; these are where impairments do not meet or equal the medical listings but are sufficiently severe to prevent performance of past occupations. In such cases the courts now hold that a decision of non-disability must be supported by evidence of jobs which the claimant could perform, considering his medical and vocational situations.[14]

To some extent the proposal should reduce the amount of vocational evidence needed to support a denial of disability. When an individual's impairments leave him capable of performing a wide range of the type of work for which he has been found capable (e.g., sedentary or light, etc.), the courts would be likely to uphold the determination on the basis of the guidelines, and this might go beyond the situations in which they now uphold a decision based upon administrative notice and without the necessity of using expert testimony or specifying exact job titles. It is difficult to say how many cases will remain where the claimant would be able to argue for a different work capability or vocational classification than was determined at a prior adjudication, or where questions of mental, sensory, skin, environmental and postural factors will be asserted. The proposed regulations might cause an increase in the number of such cases by more clearly pinpointing the decisional factors. But so long as the statute calls for an individualized determination of ability to perform, claimants are entitled to know the factors on which that determination will be based.

It thus appears that the draft regulations would have the following important impacts:

(1) provide a guide for the award of benefits in a number of of types of situations;

(2) support the denial of benefits to younger individuals who do not have mental or certain unusual impairments; and

(3) support other denials based upon a determination of highest level of work capability.

In summary, the draft regulations would simplify all levels of adjudication of claims which fit neatly within its medical-vocational guidelines. There appears, however, to be no basis for estimating their effect upon the more troublesome types of cases, particularly at the levels of hearing and judicial review.

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[14] In *Kerner* v. *Flemming,* 283 F. 2d 916, (2nd cir., 1960) the court held the evidence was insufficient to support the administrative finding of nondisability and ordered the matter remanded for the development of further evidence. After proceedings in accordance with the remand another administrative finding of disability was made and it was upheld in *Kerner* v. *Celebrezze,* 340 F. 2d 736 (2d cir. 1965).

Suggested Changes in Criteria

A. Problems With Present Concept

The present statute contemplates a determination of whether the particular individual applicant is able to engage in any substantial gainful activity by reason of a physical or mental impairment or impairments, taking into consideration his age, education and previous work experience. The concept of such a definition was that benefits would be available only to those whose failure to work was neither a matter of personal choice nor unemployment but rather an inability to perform any type of work which existed in significant numbers in the national economy.

If such a test were applied literally, there would be few determinations of disability. "Inability" to perform can rarely be determined as an absolute or even with reasonable certainty. In practice the disability determinations seem more nearly based on an unarticulated concept that in some circumstances the impaired individual is so restricted in ability to perform that failure to engage in substantial gainful activity is justifiable and therefore justifies the allowance of benefits.

The listings of impairments which were developed under the Secretary's general power to issue regulations, describe conditions under which "inability to engage" will be presumed.[15] This is not tantamount to saying that such individuals are in fact unable to engage in substantial gainful activities. In fact, there is general recognization that large numbers, and perhaps even most, of the individuals who could meet some types of the listings are in fact engaged in substantial gainful activities. Those who are allowed without meeting the listings have less severe medical impairments but unusually adverse vocational characteristics. Even there, however, the decision is less individualized than might appear at first glance. As previously indicated, few of these individuals have been tested by experts in simulated work situations. The emphasis in adjudication has to be based on expert opinion of probabilities. A medical opinion will be made that the individual probably can tolerate certain levels of activity and a vocational opinion will be rendered that one who can perform such activity probably can or cannot perform in jobs which exist in the national economy. In fact there now is an almost conclusive presumption in the initial and reconsideration stages that one under age 45 who fails to meet the listings is not disabled, except under most unusual circumstances. This demonstrates use of a classification rather than individualized consideration of ability to work, even without specific statutory authorization.

The bases of adjudication described above evolved with the participation of all branches of the government as perhaps the only practical way to operate with some semblance of making the individualized determinations which the statute contemplated. It would be preferable to face the reality that what the statute seems to contemplate is not feasible of attainment in actual operation.

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[15] These same listings are used in determining eligibility for widow, surviving divorced wife and widower benefits under the authority of Section 223(d)(2)(B) of the Act. That provision calls for listings "deemed to be sufficient to preclude an individual from engaging in any gainful activity".

B. Possible Criteria

A 1966 Brookings Institution publication, Social Security, Perspectives for Reform (Pechman, Aaron and Taussig) points out that the veterans' pension program makes benefits available on the basis of a percentage of disability, which decreases as age increases. On page 141, it suggests that a similar method could be used as a basis for making payments to nonworking older persons who have not yet reached retirement age.

It appears that the medical listings do not lend themselves to an across the board percentage application. Some listings are of such a nature that until the described severity is reached, ability to work is not materially affected regardless of the individual's vocational characteristics. The medical staff of the Bureau of Disability Insurance has, however, developed a system of rating for possible vocational effect, those impairments which fail to meet or equal the listings. Impairments which do meet the listings or are the equivalent of those listed are coded as 5 and 6, respectively. Other claims are coded in descending order from 4 to 1 where 1 represents no impairment and 2 is an impairment so light that a disallowance is considered appropriate without regard to vocational circumstances. Designations 3 and 4 represent impairments of sufficient severity that an allowance would be appropriate if the vocational characteristics, including age, are sufficiently adverse.

One possibility is to have statutory authorization for the Secretary to provide by regulation for such an evaluation and to further describe vocational characteristics for classifying applicants to ascertain whether those coded as 3 or 4 should be considered disabled. Thus impairments to support allowances would be considered on three levels: What are now coded as 5 and 6 would be allowed, as at present. Ratings of 4 would be allowed if the individual fit into a moderately adverse vocational category and ratings of 3 would be allowed if the individual came within the severely adverse vocational category. All other cases would be disallowed. The only questions for adjudication would be whether the claimant was assigned the correct impairment rating and vocational category.

Further study will be needed to determine whether there are some exceptional circumstances which might have to be dealt with outside of such a structured system for making determinations. It must be acknowledged, however, that even if exceptional circumstances can be identified for special allowances, the system suggested would provide a certain rigidity which will produce apparently unjust results in some cases. That is inherent in any broad system of classification.

Moreover, rating impairments calls for an exercise of medical judgment with some resulting variation in consistency. Still, it is believed that such a system could produce results which are at least as consistent and as socially desirable, if not more so, than is presently the case. It should be possible to accomplish this with less administrative burden and particularly with fewer reversals at the hearing and judicial review levels.

The use of such a system would not have to be a liberization or deliberization of present operations. Depending on the criteria finally adopted the beneficiary rates might be larger, smaller, or the same as at present. The purpose of the change is not necessarily to affect the

total number of beneficiaries but rather to simplify the adjudication process and make it more reliable. It would be possible, however, as a matter of policy to tighten or loosen criteria for the express purpose of decreasing or increasing the number of beneficiaries.

An alternative to the above would be a statutory provision to authorize the use of medical-vocational rules as the sole determinant. In that event, a case would either stand or fall on the basis of such rules, without the possibility of ultimate resort to a determination of whether this individual can work. This would relieve the Secretary of the *Kerner* requirement that denials be supported by a showing that there are jobs *this* individual can perform; rather the question on judicial review would be only whether the work level, age, education and experience classifications had been made correctly.[16]

In order to have such rules to serve as the exclusive basis for determinations, it would be necessary to expand the basis for work level evaluation beyond the proposed medical-vocational guidelines. They assume the feasibility of a work-capability evaluation based on the exertional requirements of jobs but, as previously discussed, do not resolve the problem of obtaining adequate information about ability to function and do not consider the effect of special limitations and restrictions such as certain mental, sensory and skin impairments, and some postural and manipulative limitations and environmental restrictions. For these reasons this alternative seems less desirable.

The Appendix contains possible statutory language to authorize disability determinations on the basis of a severity of impairments under the listings applied to vocational classifications.

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[16] The groupings of work capabilities (sedentary, light, medium, heavy, and very heavy) do not describe particular job duties but rather the general characteristircs of a level of work activities. Thus an individual whose impairments leave a residual capacity to perform light work might be prevented by those impairments from performing *some* jobs which are classified as light work. But if the guidelines are valid, such an individual would have the residual capacity to perform many types of jobs from unskilled up, which are found in significant numbers in the national economy. The determination would thus be based on a substantive regulatory finding that there are significant numbers of light jobs in the economy which a person of that residual capacity could perform. The actual job titles would never be identified and this contrasts with the present situation where a vocational expert is used in 25 to 30 percent of the hearings and ordinarily asked whether he can name specific job titles, preferably in the region where the claimant lives, which the claimant can perform. This is an expensive procedure and the results are variable depending upon the availability of occupational survey data, the expert's knowledge and the determiner's skill in framing the proper questions for the expert.

Rules which reduce the need for vocational expert evidence need not produce less equitable determinations.

APPENDIX

Possible amendment of Section 223(d) (and of Section 1614(a)(3) comparably):

(d)(1) The term "disability" means—

(A) a medically determinable physical or mental impairment or impairments which (i) can be expected to result in death or which have lasted or can be expected to last for a continuous period of not less than 12 months, and (ii) are of a level of severity which under regulations prescribed by the Secretary is deemed to be sufficient to preclude an individual from engaging in substantial gainful work which exists in the national economy; or

(B) [Individual who has attained age 55 and is blind—no change]

(2) For the purpose of paragraph (1)(A)—

(A) after providing at least 60 days notice of proposed rule making and considering all comments received, the Secretary shall promulgatee regulations which (i) provide criteria such as age, degree of literacy, work experience, skill and other relevant factors, which he determines will provide a reasonably objective basis for classification of the vocational ability of individuals to engage in substantial gainful work which exists in the national economy, and (ii) describe physical and mental impairments and levels of severity applicable to each such classification of individuals which he determines will ensure so far as is practicable that individuals whose impairments are less severe than those described for their vocational ability classification, generally will not be precluded from engaging in substantial gainful activity which exists in the national economy by reason of such impairments.

(B) An individual (except for a widow, surviving divorced wife, or widower for purposes of Seection 202(e) or (f)) shall be determined to be under a disability only if his impairment or impairments are of the level of severity for the vocational classification applicable to him as determined under the regulations promulgated pursuant to subparagraph (A) of this paragraph.

(C) [Renumber as (C) the present (B) on widow, surviving divorced wife and widower without changing text]

[Paragraphs (3), (4) and (5) of subsection (d) are not changed.]

PRELIMINARY REPORT ON DISABILITY INSURANCE

PRELIMINARY REPORT ON DISABILITY INSURANCE

(*By* JOHN H. MILLER, F.S.A., F.C.A.S., M.A.A.A., *Consulting Actuary*)

To the Committee on Ways and Means of the United States House of Representatives:

I. FOREWORD

The assignment received from the Committee on Ways and Means is to make an actuarial study concerning reasons for escalating disability costs. Before making a statement within the confines of this specific assignment, it seems desirable to set forth briefly an overview of the entire subject of disability benefits in a social security system. The purposes of such an overview are:

(i) To describe the problem, as I see it, in its entirety.

(ii) To enumerate the major aspects of the overall problem and suggest any additional studies, involving specialized knowledge and experience in areas or disciplines other than actuarial science, which might contribute to the solution.

(iii) To lay a broader background to an exposition of the ways in which actuarial analyses might be utilized in:

(*a*) identifying specific problems,

(*b*) establishing norms and other criteria by which to assess administrative performance,

(*c*) maintaining a continuous audit or quality control of administrative performance by use of these norms and criteria, and

(*d*) establishing a method of surveillance of the disability experience, both as to rates of incidence of new cases and rates of termination of admitted cases, in more detail than present procedures provide, and on a more nearly current basis.

In discussing non-actuarial aspects of the problem I hope to avoid any presumption or appearance of presumption in other areas of professional or administrative specialization, skill or experience. Rather, my intent is to indicate the limitations as well as the potential value of actuarial analyses, and to keep the latter in proper perspective in relation to the overall problem. Disability is a most complex subject and can be dealt with in an optimal manner only by bringing to bear a broad spectrum of skills.

Some suggestions offered or questions raised may appear naive or unrealistic with respect to a subject so fraught with political aspects and emotional overtones. I am aware of the great weight of political influences, but have no experience in assessing them. Accordingly, rather than to temper my statements or questions on the basis of my appraisal of the political feasibility of any concepts or proposals, it seems better to present all ideas which appear to me to be technically

feasible or theoretically valid, and leave it to those with experience in the legislative and administrative processes to make the assessment as to whether the idea has any possibility of legislative adoption and successful administration.

II. An Overview of the Problem of the Determination of Disability—Its Onset and Continuance

1. *The underlying problem* in providing and administering any plan of disability insurance is the extreme subjectivity of the state of disability. This characteristic could be discussed at length and illustrated with an almost endless array of statistics but it can best be visualized by comparing a Helen Keller or a Robert Louis Stevenson with any typical example of the multitude of ambulatory persons now drawing disability benefits who could be gainfully employed if (*a*) the *necessary motivation* existed, and (*b*) an employment opportunity within their present or potential capability were present or made available. Thus the problem is not simply one of medical diagnosis. The will to work, the economic climate and the "rehabilitation environment" outweigh the medical condition or problem in many, if not in most, cases.

2. *The major divisions* of a disability plan and its administration include the following.

(*a*) *The criteria of eligibility.*—These include the specific rules under which an individual is or is not 'disability insured", and the definition of disability and other conditions of the plan which may entitle a "disability insured person" to receive disability benefits. While obviously very important, these criteria are overshadowed by other aspects.

(*b*) *The character and level of benefits.*—These specifications of the disability program are extremely important both in determining the monetary cost of the program and the non-monetary human or social costs as well. Because disability is such a subjective condition, influenced by the individual's character, attitudes and motivations even more than by his physical condition, an increase in the benefit level can be expected to result in an increase in the incidence rates, i.e., more disabilities from the same number of insured people, as well as a decrease in the rates of recovery, i.e., longer periods of disability on the average. This relationship has been recognized by disability claims administrators, underwriters, and actuaries for more than a hundred years. The British actuaries of the nineteenth century who advised friendly societies providing sickness benefits to their members found that a financially weak sickness fund could be more readily improved by a reduction in the rate of benefits than by a corresponding increase in the premiums paid by members.

Only recently has extensive statistical documentation of this phenomenon become available. Table 1 is a reproduction of Table 5A from page 165 of the 1974 Reports Number of the Transactions of the Society of Actuaries. Before discussing the significance of this table, the term "ratio of gross benefit to salary" will be defined. In group long-term disability insurance, which is quite similar to the DI benefits of the OASDI system, it is the nearly universal practice in this

country to specify a nominal benefit e.g., $500 per month, but to provide that in no case will the insurer pay more than a specified percentage of the insured employee's salary, decreased by other specified benefits which generally are defined to include Social Security benefits, workmen's compensation benefits and other group disability benefits, if any. The Social Security benefit to be deducted may be the primary benefit only or may also include additional benefits for family dependents.[1] The "ratio of gross benefit to salary" or "gross benefit ratio" is the specified percentage of salary against which the social security and other listed benefits are offset, to produce the net amount of cash actually payable by the insurer.

Referring now to the columns "Ratio of A/T Claims" which is the percentage of the number of claims actually admitted to the "tabular claims," sometimes referred to as the "expected claims." it will be noted that this ratio is only 56 percent when the gross benefit ratio is always below 50 percent, as compared to overall ratios of 83 percent and 96 percent for the "nonjumbo" groups and the total of all groups respectively. The term "nonjumbo" refers to groups not exceeding 5,000 employees.

Table 2 is a simplification of Table 1. It combines in two categories all the groups for which gross benefit ratios are available, those with gross benefit ratios of: (*a*) 50 percent or less and (*b*) over 50 percent. It is estimated that the average gross benefit ratio for category (a) is 49 percent and for category (b), 57 percent. Thus, Table 2 shows that in going from an average ratio of 49 to 57 percent the frequency of claims is increased by 35 percent for the nonjumbo groups, 23 percent for all groups.

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[1] Several States have provided for "freezing" the Social Security benefit which can be deducted. The National Association of Insurance Commissioners (NAIC) has recently adopted advisory regulations which permit the deduction only of such benefits as are payable when the benefit period commences. Subsequent increments to such Social Security benefits. whether automatic or owing to new legislation, may not further reduce the net benefit to the disabled person.

Table 1

(Reproduction of Table 5A from TSA 1974 Reports Number)

GROUP LONG-TERM DISABILITY INSURANCE
SUPPLEMENTAL ANALYSIS OF TABLE 5 EXPERIENCE
FOR EMPLOYEE CLASS CODE 2

(Six-Month Elimination Period; Calendar Year of Issue Excluded;
All Ages; Males, Females, and Sex Unknown Combined)
Calendar Years of Experience 1968–72

	NONJUMBO EXPERIENCE UNITS ONLY				ALL EXPERIENCE UNITS	
	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of A/T Claims*	Life Years Exposed	Ratio of A/T Claims*
I. Relationship between Long-Term Disability Benefit and Salary						
Ratio of gross benefit (before reduction for integration) *to salary:*						
Always less than 50%	116	13,514	29	56%	13,514	56%
Generally less than 50%	66	17,002	52	83	56,996	116
Subtotal (less than 50%)	182	30,516	81	71%	70,510	102%
50% (exactly or approximately)	1,108	362,701	851	71%	551,600	85%
Always more than 50%, exact % unknown	93	40,430	228	141%	79,446	134%
Generally more than 50%, exact % unknown	136	10,333	23	73	25,230	122
More than 50% but less than or equal to 60%	1,594	313,989	868	88	437,694	96
More than 60% but less than or equal to 70%	220	37,714	113	108	57,946	102
More than 70%	6	3,291	13	137	16,170	247
Subtotal (greater than 50%)	2,049	405,757	1,245	96%	616,486	107%
Other, including not determinable	287	26,753	64	73%	70,714	73%
Total salaried, nonexecutive	3,626	825,727	2,241	83%	1,309,310	96%

* Tabular claims were calculated by applying to the actual age-group exposures the crude rates of disablement shown in Table 1A for males, females, and sex unknown combined.

Table 27

EXPERIENCE BY INDEMNITY AMOUNT IN RELATION TO EARNINGS

Group Long-Term Disability Experience - 1968-72

At Least 75% Salaried Personnel, Majority Nonexecutive, 6-month elimination period

	NONJUMBO GROUPS		ALL GROUPS	
	Number of life years exposed	Ratio of A/T Claims	Number of life years exposed	Ratio of A/T Claims
Gross Benefit Ratio				
1) 50% or less (estimated average, over 49%)	393,217	71%	622,110	87%
2) Over 50% (estimated average, 57%)	405,757	96	616,486	107
3) TOTAL, excluding groups with indeterminable ratios.	798,974	83	1,238,596	97
4) Ratio, of (2), "over 50%," to "50% or less"		1.35		1.23
5) Over 60%, but not over 70%	37,714	108	57,946	102
6) Ratio of (5) to "50% or less"		1.52		1.17
7) Over 70%	3,291	137	16,170	247
8) Ratio of (7) to "50% or less"		1.93		2.84

The above evidence indicates that a gross benefit ratio of much over 50% leads to a significant increase in the days of disability claimed by insured persons. This may strike some readers as a bit implausible. The explanation lies in several aspects of disability insurance which may not at first meet the eye. First and foremost, disability income dollars are, in general, much more valuable and have much more purchasing power than earned dollars. The DI benefits are fully tax exempt, as are insured benefits except for employer-provided benefits in excess of $100 per week. For a worker with a spouse and a child, paying an average state income tax, 50 percent of salary in the form of disability benefits may well equal 65 percent or more of gross earnings after tax. In addition, the disabled individual is relieved of many expenses incidental to employment such as travel, lunches, special clothing, union or professional dues and the like.

The term "gross benefit ratio" is essentially the same as "replacement ratio", an expression which is commonly used with respect to Social Security benefits and has been defined as "the ratio of PIA at award to monthly taxable earnings in the year just prior to retirement." [2] It has also been defined, with reference to disability benefits, to include, in the numerator, additional benefits paid by reason of family dependents. To recognize the effect of taxes, the after-tax income may be used as the denominator.

The evidence of Table 2 that an increase in the replacement ratio on a gross earnings basis from 49 to 57 percent has been reflected in a 23 to 35 percent rise in number of claims incurred is serious indeed when we look at the level of current DI benefits. Table 3 which follows is a reproduction of Table 2 from a presentation, at a recent meeting of the Society of Actuaries, by Mr. A. Haeworth Robertson, Chief Actuary of Social Security Administration. It shows specimen replacement ratios in terms of the after-tax income earned before disability.

In order to relate the evidence of Tables 1 and 2, which are in terms of gross benefit ratios, to the level of DI benefits revealed in Table 3, we have added Table 4 which shows for the net replacement ratios developed by the Office of the Actuary the corresponding ratios on a gross earnings basis.

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[2] Albert Rettig and Orlo R. Nichols, Actuarial Note Number 81. DHEW Pub. No. (SSAN) 73–11511 (1–73).

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Table 3

REPLACEMENT RATIO[1] FOR NEWLY AWARDED DISABILITY BENEFITS
ILLUSTRATIVE BENEFITS FOR JULY 1975 COMPARED TO 1974 AFTER TAX EARNINGS

Case	1974 Earnings		Age at Onset of Disability: 55		40		Under 30	
	Pre-tax	After-tax	Monthly Benefit	Replacement Ratio	Monthly Benefit	Replacement Ratio	Monthly Benefit	Replacement Ratio
			WORKER ONLY					
Maximum	$13,200[2]	$ 9,749	$341.70	.421	$380.60	.468	$485.00	.597
Median	7,681[3]	5,970	288.20	.579	311.10	.625	384.20	.772
Low	3,722[4]	3,066	185.20	.725	198.60	.777	233.80	.915
			WORKER, SPOUSE AND CHILD					
Maximum	13,200	10,442	619.90	.712	668.80	.796	848.80	.975
Median	7,681	6,415	533.20	.997	575.50	1.077	673.20	1.259
Low	3,733	3,365	277.80	.991	298.00	1.063	386.40	1.378

1 Replacement ratio means here the ratio of the annual benefit rate in the year of first receipt of disability benefits, to the annual rate of after tax earnings in the year prior to onset of disability. For illustrative purposes, we have assumed that onset does not affect earnings prior to the onset date, which is assumed to occur on January 15, 1975. Taxes included in this calculation are federal income tax, Social Security tax (fica), and state income tax.

State income tax for table 2* was computed as follows. States were first ranked by order of population. Then, for each of the top 12 states (which contained 73% of the population) and for every fifth state for the remaining 32 states, the state income tax was computed for each of the six examples (maximum, median, low; worker alone, worker, spouse and child) and divided by the income to express the tax as a percent of gross income. From these state rates a national state tax rate was computed by a weighted average method. For the 18 top states, the population was the weight. For the 6 low-population states the population of each state was multiplied by the ratio of (1) the population in all 32 low-population states to (2) the population of the 6 states actually computed.

2 Assumes worker earned maximum taxable earnings in each year after attainment of age 21.

3 Actual data on covered earnings for all male wage and salary workers. Female wage and salary workers have lower median earnings and higher replacement ratios.

4 Earnings for 1974 are based on the federal minimum wage, which was $1.60 per hour for the first four months of the year, and $2.00 per hour thereafter. Prior years were indexed by the median series to give corresponding low levels. In a recent year (1973), this level of earnings or less was earned by 12% of all male 4-quarter workers, and 30% of all female 4-quarter workers.

*Reference is to this table as numbered in Mr. Robertson's statement.

Table 4

Comparison of Replacement Ratios on Gross and Net Earnings Basis

Based on DI coverage with no supplemental benefits

Case	1974 Earnings		Age at Onset of Disability					
			55		40		30	
	Gross before tax	Net, after tax	Replacement Ratio Based on		Replacement Ratio Based on		Replacement Ratio Based on	
			Gross earnings	After-tax earnings	Gross earnings	After-tax earnings	Gross earnings	After-tax earnings
			WORKER ONLY					
Maximum	$13,200	$ 9,749	.311	.421	.346	.468	.441	.597
Median	7,681	5,970	.450	.579	.485	.625	.600	.772
Low	3,733	3,066	.595	.725	.638	.777	.752	.915
			WORKER, SPOUSE AND CHILD					
Maximum	13,200	10,442	.564	.712	.608	.796	.771	.975
Median	7,681	6,415	.832	.997	.898	1.077	1.051	1.259
Low	3,733	3,365	.893	.991	.958	1.063	1.242	1.378

The replacement ratios on the gross earnings basis, shown in Table 4, may be compared with the gross benefit ratios in Tables 1 and 2. In view of the showing that, as the gross benefit ratio approaches 60 percent, the frequency of disability increases markedly and that when the ratio exceeds 70 percent, the disability incidence rates on the nonjumbo risks nearly double, and on the total experience, nearly triple as compared with the more conservative benefit levels, it is a cause for deep concern that gross ratios of 0.600 or more apply to all young childless workers at median or lower salaries and to nearly all workers with a spouse and minor child for earnings up to the earnings base. In other words, all workers entitled to maximum family benefits are overinsured except older workers whose earnings approach the earnings base, middle-aged workers who earn not more than the earnings base, and young workers except those earning substantially more than the earnings base.

Although these excessive replacement ratios have not been in effect long enough to have been fully reflected in the disability experience, overly liberal benefits may have played some part in the 47 percent increase, between 1968 and 1974, in the average rate of becoming disabled. Other than the indexing provisions, statutory changes during this period could have had no great effect. There is no evidence that the health of the nation has deteriorated. Rising unemployment has clearly been a factor, but the increasing attractiveness of the benefits must also be an important influence.

For more dramatic illustrations we can look to Finland, Norway, Sweden, Denmark and Holland where generous social disability benefits have led to even more rapidly escalating disability rates. New data, just received from the Netherlands, show disability rates over 3½ times those in the United States and still rising rapidly.[3] The benefits there are geared to 80 percent of earnings up to a fairly high level of income. How does this compare with our benefit level in this country? The Dutch benefits are taxable, so we must compare with after-tax income and benefits in the United States.[4] It will be seen from Table 4 that, for most workers under age 50 with a wife and child and whose earnings have not exceeded the earnings base, our after-tax replacement ratios are over (in some cases much more than the 80 percent Dutch ratio. *And*, as a result of the 1972 indexing provisions, the situation may worsen steadily as time goes on. More detailed comparisons of the experience in the Netherlands are given in Appendix A.

Not only do we have serious overinsurance now, but also gross inequities. At the hearings of February 4, 1976, Mr. Gerald S. Parker, Vice President of the Guardian Life Insurance Co., testified before the Subcommittee on Social Security of the House Committee on Ways and Means. He made the point that a 25-year-old disabled worker could well be entitled to a primary insurance amount equal to 144 percent of that of his 55-year-old father, or more. The anomaly is even greater if we consider that the younger man, probably having a wife and one or more children, is more likely to receive the maximum family benefit while his father, though supporting a wife, re-

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[3] While the Dutch plan includes partial disability coverage this appears to be at least offset by the longer (12 month) elimination period.

[4] The two are not strictly comparable because, assuming a graduated income tax rate in Holland, the 80 percent benefit would yield a somewhat higher after-tax income, perhaps 82 percent of previous earnings on an after-tax basis.

ceives only the primary insurance amount, his children having passed the age limit for dependent's benefits. In this case the son's benefit might be more than 2½ times the father's, though both paid the maximum FICA tax since reaching age 21. Thus the present benefit structure not only provides excessive benefits over a wide area of our population, but produces very capricious, illogical and inequitable results, with the older workers, who have made the greatest contribution, receiving the lowest benefit amounts.

There are two basic defects in the Social Security Act, as it relates to disability benefits, which are so fundamental and far-reaching in their effect that no amount of improvement in administrative efficiency or in the review and adjudicative procedures can prevent both a continuing and relentless increase in the number of beneficiaries who should not be receiving disability benefits, and a persistent deterioration of the rehabilitation program as a positive and constructive force. These are:

1. An irrational benefit formula which produces inadequate benefits in some circumstances, while covering a huge and constantly increasing number of workers for excessive benefit amounts, which encourage the application for benefits with respect to disabilities which are inherently temporary or which could be overcome by a serious attempt at rehabilitation. These excessive benefits not only encourage application for benefits in borderline or invalid cases, but also, in all cases on which awards are granted, induce malingering, and discourage recovery or rehabilitation.

2. An over-simplistic division of all disabilities in two categories, (i) not covered, or (ii) covered, with an implied presumption of permanence or long duration. The language of the Act, the evolution of the benefit from one originally limited to presumably permanent disabilities, and the human tendency (among administrators as well as disabled workers and DI beneficiaries) to follow the course of least resistance, all combine to create an attitude which is not conducive to the concept that most disabilities should be ended either by medical recovery or by economic recovery, i.e. rehabilitation.

The DI benefit level is termed "irrational" since it is not, except by coincidence, related to the need of the recipient; neither is it related in a consistent or equitable manner to the contributions made with respect to the recipient. The latter statement is not to imply that a normal premium/benefit ratio should be expected in a social insurance plan, but to point out that the present benefit levels can be justified neither by social need, nor by the kind of equity on which private insurance systems are based.

A rational benefit would, in my opinion, provide, as a minimum replacement income either:

(i) A sum related to the prevailing minimum wage, or

(ii) A subsistence income, with due regard to the family needs not met by actual or potential earnings of other family members.

In either case, the minimum benefit should be subject to offset by reason of other social benefits such as workmen's compensation or state cash sickness benefits.

Increments above this level might be based on the current or recent level of earnings, for example, the lower of the average for the past 12 or the past 36 months.

(*c*) *The part played by rehabilitation services.*—With an increasing rate of disability suggesting, in the absence of evidence of any general deterioration in the health of the working population, that more liberal judgments are being made, and with improved technology in rehabilitation services, one would expect substantial, even dramatic, increases in the number of rehabilitants. To the contrary, the results have been very disappointing. The General Accounting Office in testimony on February 3, 1976, has enumerated several disincentives. Should these not be removed and every possible incentive supplied?

Earlier in this report it was suggested that the full potential of rehabilitation will not be realized until a proper "rehabilitation environment" has been established. By this term we mean not only the Offices of Vocational Rehabilitation and the facilities available to their clients, but the motivation felt by the beneficiary or potential beneficiaries of DI—largely dependent on the level of disability income benefits available as an alternative to rehabilitation—the attitudes and motivations of all personnel involved including not only various offices of the BDI and OVR, but employment security offices, employers and their personnel and medical staffs, practicing physicians, hospital administrators, organized labor, workmen's compensation insurers and regulatory officials, and the support provided by family members, neighbors and the community at large.

If the rehabilitation environment could be raised to an optimal level, only those who are virtually helpless would be left on the disability rolls. The benefit to the nation in reduced Social Security costs could be tremendous. but the principal gainers would be the disabled persons themselves, in terms of quality of life.

The present method of measuring the savings from rehabilitation in contrast to the appropriations from the Trust Fund was seen to have been abused in some cases. More fundamentally, does not this form of justification tend to debase the program and its objectives? Should not primacy be put on the objective of restoring useless lives to a position of self respect and esteem of peers and family that flow from a life spent in productive and purposeful activity? Could the purposes hoped for by the allocations from the Trust Fund to the RSA be more likely of achievement if the eligibility of each case were determined on a strictly a posteriori basis?

If the whole SSA personnel were imbued with a feeling of mission in maximizing rehabilitation accomplishments through contribution to the rehabilitation environment, if the successful rehabilitant were evaluated in terms of quality of life and human dignity, rather than just as the removal of a theoretical debit entry from the Trust Fund ledger, if a spirit of rivalry among states or regions were developed, the social dividend might become large and the financial savings would follow automatically.

3. *Disability insurance benefit administration.*—It is my understanding that the present system of administration of the DI benefits by State offices, usually the offices of vocational rehabilitation, was adopted by Congress, first, because these agencies were there and, second, because it seemed a good way to bring the opportunities of rehabilitation to the disabled individuals at the earliest possible time.

Unfortunately, the results have not borne out the original hopes and expectations and, as has been well documented, the rehabilitations of

disabled workers have been disappointingly few, even with the stimulus of the 100 percent reimbursement from the Trust Fund.

When the processing of disability claims is viewed as a problem in business administration it becomes immediately obvious that in view of the high degree of subjectivity of the disability risk and the very personal nature of the transactions involved as well as the emotional overtones, the local administrative headquarters should be relatively close to all clients served and vested with considerable authority and autonomy. Optimal size for efficient administration and control, and distance from the furthest constituent, should determine the location of local offices and the area served. Because of the wide diversity in size, population, population distribution and other characteristics, it is unlikely that many states would meet these criteria. The special characteristics of the disability risk argue for a high degree of autonomy in the local offices. On the other hand, equity among citizens in all parts of the country, and a reasonable fiscal control, argue for an overall unified control. This suggests that the local offices should report directly to what would be called in private business the top management. The location of the top management headquarters may be unimportant. Baltimore or Washington of course come to mind, but a more central location would have some advantages. Obviously the central administration would require some staff and personnel to maintain proper communications with the local offices. This might result in a number of regional or divisional offices but it is suggested that the work done in these should be held to the minimum. Certainly the direct dealing with applicants, beneficiaries, doctors, employers and others involved can best be at the local level while statistical controls and reviews can be completely centralized where "top management" is located.

The structure envisaged would eliminate the present dual control which appears to have contributed to the unsatisfactory results which have been observed. While the State agencies are in theory just contractors for the Federal Government, the fact that the personnel are State employees and the facilities used are, at least in some cases, under State control, creates a division of responsibility which cannot be anything other than detrimental to the achievement of optimal results. The pattern of management suggested above, with emphasis on the local operating office and on the centralized control with a minimum of administrative personnel and machinery between this bottom and top layer, has been described with some approbation by Mr. Peter Drucker in his book "The Practice of Management". Two successful examples are mentioned, one the Roman Catholic Church where the only authority interposed between the parish priest and the Pope and the Cardinals in Rome is the Bishop. The other example is the Sears, Roebuck merchandising system wherein the store manager has a great deal of autonomy. Between him and the top management there exists only a regional vice president.

It is believed that some such simplified organization would result in better control, increased uniformity and equity in the treatment of disabled persons in the various parts of the country, and a more efficient system of review, with greatly reduced litigation. If this form of organization is considered for the administration of the DI benefits it would appear logical to use the same organization for the SSI benefit administration.

Inclusion also of the Rehabilitation Services Administration personnel certainly appears to offer some advantages. Short of this, a representative or a unit from the State rehabilitation facility, vested with authority to determine feasibility of rehabilitation in every case, should be located in each local disability administration office.

Use of consultants or an advisory council.—Regardless of divisional lines and of whether, or to what extent, the States participate, could some improvement be effected by a study in depth of existing methods and procedures through the use of consultants or of a commission or task force? The GAO study might well furnish a point of departure for a more extensive study from which standard procedures and guidelines could be developed. Such a task force could be drawn in part from other governmental units, from the insurance industry, from management consulting organizations, and could comprise people with backgrounds in workmen's compensation, rehabilitation, insurance disability claim administration, and in corporate personnel administration. The membership could be drawn so as to include persons qualified in medicine (including physical medicine) law, vocational counseling and training, and actuarial science.

The task force or commission might seek assistance from private organizations which have made special studies of disability claim administration, such as Teknekron of California, which made an extensive study of workmen's compensation administration.

4. *Evaluation or review and adjudication procedures.*—The Staff Report discusses extensively the process of review of disability determinations and adjudication of contested determinations. The number of cases requiring review or adjudication seems to be growing at a rather alarming rate and involving a continually increasing percentage of applications for DI awards. The extent of this process of review and litigation raises a question whether to some extent these procedures are a substitute for a more thorough initial evaluation of cases. Or, we might raise the fundamental question as to whether the whole concept of disability evaluation and benefit payments is outmoded. The present system assumes a dichotomy between persons who are disabled and persons who are not disabled. Having made this separation those accepted as disabled are, sometimes much too belatedly, again divided into two groups: those where rehabilitation should be attempted and those for whom rehabilitation is judged not to be feasible. This approach appears to go back many years to the concept of total and permanent disability, a concept which first developed long before modern medicine was able to eliminate or control such scourges as tuberculosis, long before the speciality of physiatry was developed, and before physical therapy, occupational therapy, occupational retraining and advanced techniquees utilizing prosthetics were conceived and developed as effective parts of a rehabilitation procedure.

Under the present law DI benefits are awarded only if (i) the disability is judged to be permanent or (ii) is not permanent but is expected to last for a long time and at least twelve months in any case. In effect (i) is a life sentence to dependency and uselessness and (ii) is an indeterminate sentence with a possibility of "parole" via recovery or rehabilitation but no definite time table or program for revaluation, although certain cases are diaried for future medical re-evaluation.

Both beneficiaries and administrators are therefore left with the inference that a disability pension has been granted. The very sorry showing of rehabilitation efforts and the low and declining rate of recoveries seem to support this conclusion. The psychological impact on the disabled individual of the judgment that his disability is permanent or of long and indefinite duration certainly does not set the stage for early recovery or for a serious attempt at rehabilitation.

Many years of experience on my part with a disability benefit limited generally to a period of one or two years of continuous disability from any one continuous disability, has convinced me that the prospect of recovery is greatly increased if benefits are not, at the outset, promised for an indefinite period of disability or until entitlement to old age or other retirement benefits. Statistical evidence of this has been developed and is included in Appendix B of this report.

The individual who has a serious disability from which there may be a permanent residual, but which will not forever prevent his earning a living, reacts very differently when he faces a limitation on the period of benefits as compared to the individual who, under the same circumstances, knows that in all probability, he can collect up to age 65 so long as there is not a complete elimination of his medical diagnosis and so long as he does not attempt to return to productive work.

Considering all these subjective aspects of disability and the tremendous progress which has been made in dealing with disability in a positive manner i.e., through medical treatment, therapy, occupational training or retraining, and the fitting of prosthetic devices and other mechanical aids, should we not now reconsider the traditional idea of splitting people into two groups, the disabled and all other? Instead, a classification could be adopted which recognizes the potential of recovery or rehabilitation. Such a classification might be in the following form.

I. Medical impairment is permanent or of very long duration.

(*a*) Rehabilitation is feasible.

(*b*) Rehabilitation is not considered feasible.

II. Medical impairment will continue *n* months (*n* being 12 months or more from the onset).

(*a*) Rehabilitation will be needed to restore earning ability.

(*b*) Patient will be able to resume his regular occupation on medical recovery at the end of *n* months, the attending physician's prognosis.

III. Individual does not qualify for either disability benefits or rehabilitation services.

With cases thus categorized, rehabilitation services with cash payments for the support of the individual and his family would begin immediately for groups Ia and IIa. The primary determination in these cases is that the individual needs, or can benefit from rehabilitation services and that these should be provided along with the necessary financial support for family living costs during the process of rehabilitation. No finding or judgment of long-continued disability need be made since the program assumese that rehabilitation services will be provided immediately and wil lead to a successful termination of the economic disability even though the impairment may be permanent. Of course in the event of failure of the rehabilitation attempt, the individual will again be evaluated for appropriate reclassification.

Meanwhile a positive and hopeful judgment or label of "feasible for rehabilitation" will have been given rather than the negative finding of permanent or long-term disability, subject to the possibility of termination through rehabilitation, a possibility which apparently is sometimes brought to the disabled person's attention long after he has become accustomed and mentally conditioned to a life as a disability pensioner.

Individuals in category IIb would be given assurance of benefit payments for the number of months corresponding to the medical prognosis subject, of course, to termination following intermediate check points, since many cases will respond to treatment more rapidly than originally predicted. On the other hand, if progress is slower than originally predicted, the individual can be reevaluated, both medically and as to need of rehabilitation services at the end of the n months. Meanwhile nothing has been said or done to indicate to the disabled person that he has been granted a permanent or potentially permanent disability pension. If at the end of the n months recovery has occurred as originally predicted, but the individual cannot find a job, his case would then be transferred to the Employment Security Office of the State and he would be appropriately dealt with as an unemployed person rather than a disabled one.

Only persons in category Ib would, from the outset, be labeled as suffering from a long term or permanent disability. Thus, for the majority of cases, rehabilitation or recovery would be considered the main track rather than a possible exit from a life sentence to permanent disability, which certainly seems to be the implication of a disability insurance award under the present system.

Since the original assessment of individuals into the four groups leaves open and in abeyance any final determination of disability, except for those in Ib, it is believed that the problems of review and appeal would be greatly minimized. The whole process proposed involves and presupposes a continuing review if the individual has been labeled as feasible for rehabilitation or if a time limit has been set on the probable course of his disability.

III. Proposed Actuarial Analyses of the DI Experience Data

The Office of the Actuary has maintained continuing statistical studies of the disability experience which have enabled it to make projections and cost estimates on the basis of recognized actuarial procedures. No suggestions are offered in connection with these traditional studies, but additional areas of study are outlined below designed to assist in the following:

(i) Measurement of quality of administration of benefits through the use of certain statistical "norms."

(ii) Maintaining constant surveillance of trends in incidence of new disabilities and in termination of existing disabilities through an "early warning system."

(iii) Analyzing the experience on the basis of various demographic factors and personal characteristics to shed new light on the subject of disability, as an aid to the SSA in administration and to the Congress in developing constructive legislation.

1. *Establishment and use of norms.*—The GAO has mentioned the lack of standards and guidelines in connection with the administration of DI claims. Much of their criticism is doubtless valid, but in the highly subjective condition of disability a great deal of individual judgment is inevitably required and two equally qualified administrators or arbitrators may well differ on the decision concerning a particular case. It is believed that the proposal in II(4) above to classify acceptable cases in four categories would reduce the variations in judgment or at least render them less potentially prejudicial to the interests of an individual citizen, since there would be much less finality and always a followup reevaluation, except in the case of the Ib category.

While agreeing with the GAO that as much assistance and guidance as possible should be furnished through the use of detailed and continually updated manuals containing guidelines, illustrative case histories and any other information which would be useful in obtaining uniform and equitable treatment of all covered persons, I believe that more is needed and suggest that norms could be devised that would serve to (i) give guidance to administrators, (ii) assist in the evaluation of the efficacy of different or experimental procedures or tactics, and (iii) permit more valid comparisons between states or regions. Such comparisons could lead to identification of superior methods or techniques and their communication to all offices. The norms referred to would be standard rates of occurrence of disability by sex, age, occupational classification and perhaps other factors as these can be evaluated. A second set of norms would relate to the rates of termination of disabilities from various causes and a third set of norms would indicate the probability of successful rehabilitation based upon age, occupation and medical diagnosis. It is believed that lax judgment in the determination that an individual is disabled will show up in an unusually large percentage of cases in which the element of subjectivity is particularly high, such as back trouble, neurotic conditions, or indigestion. Some evidence of this is presented in Appendix A.

The SSA has published aggregate rates of disability by State, in 1970, which indicate a range of incidence rates (frequency of awards per 100,000 covered persons) from 199 in Alaska to 1,031 in West Virginia. The explanation of such differences often is, or seems to be, quite obvious; for example, the West Virginia experience is heavily influenced by the coal mining industry and the occupational disabilities and risks which go with it. Also, a high rate may be defended or rationalized on the basis of the age distribution of the insured persons, the prevalence of other high risk occupations, adverse climatic conditions, and adverse employment conditions. With no accepted factors by which to adjust for these differences in environment or characteristics of the population, the comparison of crude rates can be of little use. However, many factors are measurable, especially age, sex and occupational risk. In mortality comparisons we are accustomed to the use of "standardized" or "age-adjusted" mortality in different countries or States by a single "standardized rate." Such standardization could be introduced into the comparison of rates, both of incurral of disability and—what may be of comparable importance—of termination of disability. It would then be possible to make, with

reasonable assurance of comparability, the judgment that, e.g. South Dakota has a higher disability experience than North Dakota, all measurable factors considered. Or it may be determined that the reverse is the case. It would then be possible to compare administrative procedures in the two states and to draw some conclusions as to what methods or procedures are effective, or what standards of operation, or personnel selection, training and supervision work well. Methods of administrative or management control could also be evaluated in the same manner.

Another type of actuarial analysis which would be helpful, not with respect to measurement of administrative effectiveness, but in determining the effects of over-liberal benefit levels and other consequences of legislation would be to compare rates of disability, rates of rehabilitation, and rates of recovery according to age of the individual and the level of his benefits in terms of replacement ratios. Thus if it is found that the ratio of disabled cases rehabilitated, or the ratio of recoveries, is very low at young ages or at low earnings levels, where replacement ratios are generally quite high, this would be evidence that overly generous benefits defeat efforts both toward rehabilitation and restoring the individual to his original employment as a person recovered from disability.

The statistical analysis described above, if carried out by conventional methods, would require a tremendous effort and the results would probably be so long delayed that they might have lost their current relevance by the time they become available. Under convenqjtional analysis of experience the major time and cost is in developing the exposures, that is, the number of people within a year, or other period of study, who are covered or exposed to the risk insured against. To study the experience by age requires that the number of persons "disability insured" be analyzed by attained age. If we also wish to study the results by occupational classification this sub-division must be added to the statistics. Because of frequent changes in occupation, or from one industry to another, it is obvious that it would greatly increase administrative costs to keep track of everyone's current occupation.

Fortunately there is another method which can produce very significant indications without the necessity of analyzing the exposures in this fashion. Moreover, since the Social Security coverage extends to practically all workers except those in the railroad industry and in civil service, a great deal of information as to the distribution of the covered population by occupational category and many other factors can be obtained through census data. We have seen how volatile the rate of disability can be. Obviously changes in the composition of the exposed population take place at a much slower rate and analyses based on the last decennial census can be used as reasonable approximations for some period of time following the date of such census.

The "Anderson expected exposure method" was conceived by the late William M. Anderson, F.S.A. The expected exposure method is described in Appendix C. It seems particularly adaptable to the analysis of OASDI experience for the reason, as mentioned above, that nearly the entire population of working age is involved. Thus much demographic and economic data collected by the Census Bureau and other Government agencies can be utilized in comparing benefit awards

with the covered population according to a number of individual characteristics.

A special advantage of the expected exposure method is that we can develop the expected exposures in total, without any analysis of the distribution by age or other characteristics of the number of actual exposures.

Considering the application of this method to the Social Security DI claims it can be seen that, if we have, say, 600,000 claims for a given period, the number of expected exposures can be obtained by processing the 600,000 claims, without any analysis of the approximately 80 million covered persons exposed to the risk of disability.

2. *Comparisons with data from insurance companies.*—One of the most worrisome facts concerning the DI experience is the relatively low rate of recovery as compared to insurance company experience under either group or individual long-term disability, and the decreasing tendency in this rate of recovery. Two types of analysis are suggested here. First, a comparison of Social Security DI terminations by State or regional groups of States and major diagnostic classifications. This would presumably bring out marked differences. Where one State or region shows a much higher recovery rate from a certain diagnostic group than other States or regions, comparisons could be made as to the procedures followed in the respective areas, for example the frequency of follow-ups by the Bureau of Disability Insurance, frequency of medical examinations or reevaluations, procedures with respect to evaluation of rehabilitation feasibility and the like.

The Society of Actuaries published, in 1952, some data relative to disability terminations according to cause of disability. These data are perhaps too outdated to be of much value, but a comparison with current DI experience might furnish a few clues. Of much greater potential value would be a comparison of the DI data with current experience under group LTD (long-term disability) insurance. The Society publishes annually some very valuable data on group LTD insurance, including rates of termination of disability, not subdivided between death and recovery. No information has been published analyzing these terminations according to the cause of the disability, but I would be glad to discuss with the chairman of the committee in charge of these studies whether, with the data already in the hands of the committee, such an analysis could be made. If the companies have not been asked to furnish information as to the causes of disability, then I would be glad to approach them individually, there being only 12 contributors to this study, and ascertain whether they could furnish the Society Committee with data as to cause of disability which that committee could in turn supply to the Staff of the Ways and Means Committee or to the Office of the Actuary in aggregate form without identifying the contribution of individual companies. To illustrate the potential value of such an analysis, let us assume that the insurance company data and the DI data as to termination of disabilities caused by cancer were quite similar whereas those caused by musculoskeletal disorders or mental disorders showed a great disparity; this finding would suggest that the follow-up with respect to the more subjective disorders is not adequate or effective.

I do not recall reading whether the Bureau of Disability Insurance makes use of normal durations of disability from various diagnoses

in the process of diarying cases for re-examination by a physician. By studying the pattern of termination of disability using both DI and insurance company data it would be possible to develop distributions of disability terminations from each major or important diagnostic classification. Such a distribution analysis for cause of disability X might for example show that, of the disabled lives in that category who eventually recover or become rehabilitated, 30 percent of these terminations occur within 1 year after the date of first disability payment, another 30 percent within the 3 following years, 25 percent within the 5 years thereafter, etc. Based on this analysis, the manual of procedures might include a standard schedule by which to diary re-examinations, subject to the physician's modification in individual cases. For another cause which shows a higher degree of recoveries in the first year the review might be more frequent, while for very severe disabilities with rare occurrence of recovery the first checkup could be deferred. In controlling costs under hospital and medical insurance, the New Jersey Blue Cross, and the John Hancock Mutual Life Insurance Co., among others, have employed similar statistical analyses to considerable advantage.

APPENDIX A

COMPARISON OF DUTCH WITH UNITED STATES STATISTICS ON DISABILITY

In Table 5 a comparison is made between the 1974 disability incidence rates in the Netherlands and the corresponding rates in the United States by sex and age group. Overall, the disability experience in Holland is more than three and a half times that of the Social Security DI system in the United States, a nearly incredible statistic. The Netherlands plan involves an elimination or deferment period of twelve months compared to the five months under the DI program. On the other hand the Dutch workers are entitled to partial benefits, which account for about one sixth of the total claims, roughly offsetting the effect of the longer deferment of benefits.

As mentioned earlier the plan in the Netherlands has a fixed replacement ratio of 80% based on gross earnings. Since the benefits are taxable, this probably corresponds to an after-tax replacement ratio of about 82%, the tax rate on 80% of a given level of income being somewhat less than that on 100%. It has been shown on tables 1 and 2 that, according to United States group disability experience, such ratios give rise to an excessive number of claims. Also it has been pointed out that - at least for the younger workers with family dependents, excluding the relatively few who are highly paid - replacement ratios exceeding 80% are more the rule than the exception with respect to disabilities being incurred at this time.

The data from Holland also support the proposition that an analysis of claims by diagnosis can be used to ferret out areas where malingering, fraudulent claims, lax administration, or biased adjudication of claims may be a problem. In Table 6 a comparison is made between the two countries for important diagnostic groups, viz. musculoskeletal disorders, mental disorders, diseases of the circulatory system, and neoplasms (cancer). It will be noted that, whereas the incidence of cancer in Holland is less than that in the United States, and that of circulatory disease is 75% higher, the incidence of musculoskeletal disorders, which include back pain, is 5.6 times that in the United States. The corresponding ratio for mental disorders is 5 to 1. In many cases of these latter conditions disability can neither be proved nor disproved by clinical tests. On the other hand, circulatory diseases and cancer are subject to much more precise diagnosis, supported by laboratory tests and other objective means.

The relative incidence of these subjective conditions (musculoskeletal and mental disorders) has been rising rapidly in the Netherlands, as shown in Chart A. In this country we have seen a disproportionate increase in new claims for disability due to disorder of the musculoskeletal system. Also, the claims due to mental disorder have risen at an alarming rate among workers under age 30, but at other ages the rate of increase has been below average.

The 80% replacement ratio was adopted as a national policy in Holland in 1967. Thus the 1974 experience reflects over six years of operation at this high level of benefits, whereas, in this country, we are just beginning to experience correspondingly high and even higher benefit levels. One may well ponder whether the developing U.S. experience will parallel that of the Netherlands!

Table 5

Comparison of Disability Incidence Rates per 1000
In the United States and The Netherlands
1974 Experience

Ages	Men			Women		
	USA	NL	Ratio	USA	NL	Ratio
20-24	1.46	5.40	370%	.60	5.00	833%
25-34	2.00	8.00	400	1.41	13.40	950
35-44	4.17	16.00	384	3.84	24.80	646
45-49	7.83	26.30	336	6.81	32.90	483
50-54	13.02	40.50	311	11.15	45.40	407
55-59	23.09	55.40	240	18.66	56.50	303
60-64	32.99	103.60	314	19.74	84.50	428
Average*	7.49	22.90	306	5.80	27.62	476

Sources: USA - Unpublished rates furnished by the Office of the Actuary, SSA; The Netherlands - published report for 1974.

Table 6

Comparison of United States and Dutch Disabilities
by Diagnostic Group

Diagnostic Group	Disabilities in The Netherlands - 1974		
	Actual Number	No. expected on the basis of US 1972 experience	Ratio
Circulatory System	8,508	4,870	175%
Mental Disorders	9,029	1,790	504
Musculoskeletal System	13,873	2,473	561
Neoplasms	1,140	1,416	81

Note: The sources are the same as for Table 5. The data for the Netherlands were not separated by sex, age and diagnostic group. The latest US data were for 1972. To base the comparison on the same age and sex distribution, the actual US incidence rates by sex, age group and diagnostic group were applied to the 1974 exposures in the Netherlands. Were 1974 US data available the ratios shown above would generally be somewhat lower. However, the significance of this comparison is in the contrast between the high ratios for the more subjective causes, as compared to the much lower ratios for cancer and circulatory disorders.

* Standardized average claim rates based on U.S. 1974 estimated exposures.

Table 7

Comparison of Claims in 1967 and 1972 - US

Major diagnostic groups in which the number of claims increased more rapidly than the average

Diagnostic Group	Ratio of Number of Awards in 1972 to that in 1967 for indicated diagnosis		
	Ages	Men	Women
Circulatory System	All	1.79	1.83
Musculoskeletal System	Under 30	2.63	8.10
	30-49	1.41	2.04
	50 & over	1.77	2.24
Mental Disorders	Under 30	4.10	5.07
Endocrine, Nutritional and Metabolic	All	1.61	1.62
Respiratory System	All	1.28*	1.75
Digestive System	All	1.68	2.02
Accidents	All	1.55	1.85
All causes	All	1.41	1.64
	Under 30	2.96	5.30
	30-49	1.25	1.47
	50 & over	1.40	1.63

*Below average.

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CHART A

DISABILITY INSURANCE IN THE NETHERLANDS

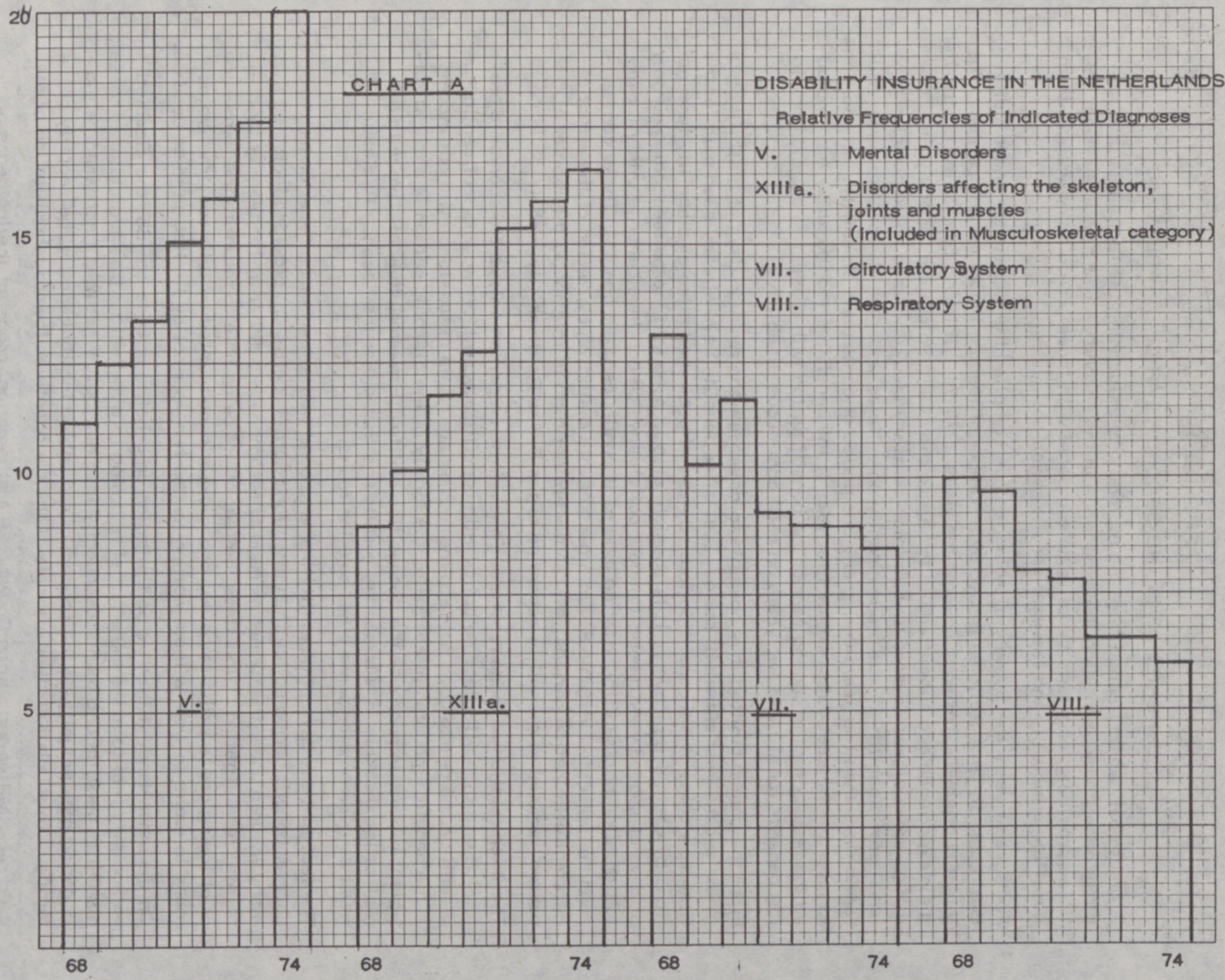
Relative Frequencies of Indicated Diagnoses

V. Mental Disorders

XIIIa. Disorders affecting the skeleton, joints and muscles (included in Musculoskeletal category)

VII. Circulatory System

VIII. Respiratory System



APPENDIX B

EXPERIENCE IN THE SECOND YEAR OF DISABLEMENT

A great deal can be learned from the motivations influencing the recipients of disability benefits by examining the experience in the second year of disability under policies providing long-term benefits as compared with those providing only short-term benefits, principally the two year benefit period policy.

For several years the Society of Actuaries has compiled the experience under individual Loss-of-Time Policies issued by a number of leading insurance companies. The latest published experience covered the years 1970-71. Thirteen companies contributed their experience and submitted, in the aggregate, 138,795 claims for analysis. Although the business covered by this inter-company study included some policies of long-term disability it was predominantly on policies under which benefits were paid for no more than two years during any one period of continuous disability. In addition to reporting in great detail on the first year of the benefit period the study also included the results for the second year of the benefit period with respect to policies providing benefits for at least two years on each continuous disability.

From the data submitted it is possible to determine the average days of disability within the second year of benefit period, i.e. after benefits have already been paid for the first 12 months of the benefit period. By use of published rates of disability termination, by death and recovery, it is possible also to ascertain the corresponding number of days of second year disability under policies which continue benefits either for the full duration of disability or for so long as it continues up to age 65. These comparisons are presented in Table 8. In order to avoid distortion by reason of the effect of different elimination periods, all results are set forth in relation to the tabular or "expected" amount of disability according to the Swiss Re disability model.*

The interpretation of these results follows. When a person enjoys the economic protection of a disability income policy with benefits assured for two years of continuous disability, he or she does not face the immediate crisis of existence without income. If the benefit amounts are adequate, the family of the disabled person is assured sufficient income to purchase the necessities of life. However, they all live with the realization that this is a temporary respite and that either the "economic disability" must be overcome or some other solution found.

The fact that the days of disability in the second year are so much fewer under the shorter benefit period policy than when long-term benefits are provided indicates that many insured under the former manage to resume work, either by recovery or by attaining rehabilitation. Doubtless the fear of not being able to return to the former job or of losing one's skills or having one's experience blunted by idleness, motivates many to return to work without waiting for the two year policy limitation to be used up.

On the other hand, if there is no limitation on benefits prior to age 65, the disabled person may fear to make the effort of returning to work lest he lose his claim to these disability benefits and then subsequently lose his job. What might appear to be malingering may actually be the concern of a disabled family head for the security of his family. This is but another example of the disincentives toward rehabilitation or re-

* John H. Miller and Simon Courant, A Mathematical Model of the Incidence of Disability. TSA XXVI, page 1, 1974.

covery presented by the availability of disability income benefits guaranteed, if recovery cannot be proven, to age 65; especially when the recipient is led to infer that a "permanent" disability annuity has been awarded.

Table 8

Days of Disability in the Second Year of Disablement*
Short-term benefit periods compared with long-term
Standardized average amounts for ages 20-59

Coverage	Individual policies	Group policies
Elimination Period	0/7 days*	3 months
Benefit period	Predominantly, two years	To age 65
Experience years	1967-70	1968-72
Actual Days of disability per 100 insured	71	87
Actual to "Model"	63%	99%
Relative cost in second year	64	100

* The actual experience under short-term policies was based on those with 7 days elimination on sickness, first day accident coverage. Accordingly the experience of the second year of the benefit period, for the individual policies, does not differ significantly from that of the second year of disablement.

Other evidence, presented in Table 9, corroborates the findings shown in Table 8. In Table 9 are shown continuance rates for the second year of disability based on unpublished experience under individual loss-of-time disability policies predominantly subject to a two year benefit period, compared with similar continuance rates under long-term policies. By "continuance rate" we mean the proportion of the disabled persons at the beginning of the second benefit year still drawing benefits at the end of the year. This comparison would indicate that, where a time limit has been placed on the benefit period, as many as 25% of the persons disabled at least one year recover in the second year who, if insured under a long-term or unlimited benefit period would still be asserting their claim for continuous disability and still collecting benefits.

Table 9

Disability Continuance Rates in the Second Year of Disablement
Men and Women Combined

Ages	Under 40	40-49	50-59	60 & over
Group LTD, 1962-72 (Benefits to 65)				
3 months deferment	.67	.78	.85	.86
6 months deferment	.71	.80	.86	.89
Individual Loss-of-Time*				
Recent experience	.45	.51	.61	.64

* Two years benefit period or longer, predominantly two years.

Sources: Group LTD - TSA 1974 Reports Number
Individual - Unpublished data

APPENDIX C

THE ANDERSON EXPECTED EXPOSURE METHOD

The "Anderson expected exposure method," was conceived by the late William M. Anderson, F.S.A. In explaining it to me he mentioned that the problem of time and cost in making an experience analysis was the tremendous volume of exposure data to be analyzed, whereas a relatively small number of claims is encountered in the usual situation. He suggested the possibility of eliminating the cumbersome problem of analyzing the exposures by a reversal of the conventional procedure. In the customary approach to analysis of experience, whether it be of mortality or disability rates or rates of claim termination, the number of lives exposed, or the amount of indemnity exposed, in a particular cell - e.g., a group of persons of the same age and possibly other characteristics - is multiplied by the expected, or tabular, rate of claim. For example, if 2,000 lives are exposed at a certain age and the expected or assumed claim rate is 3 per thousand then the number of expected claims is 6 (2,000 X .003). To illustrate the expected exposure method, assume that the actual number of claims in this cell is 9 (50% more than the expected). The procedure would be to divide 9 by the expected claim rate (.003) giving the result of 3,000, which would be termed the expected number of exposures. In other words, where the conventional method answers the question "given a number of exposed lives how many claims will be expected?" the expected exposure method answers the question "given a certain number of claims, how many lives should have been exposed to produce this result if the actual experience followed the expected or assumed table of rates?" In this case we say that the expected exposures are 3,000, 150% of the actual exposures of 2,000. Thus we speak of a ratio of expected exposures to actual exposures of 150% rather than the ratio of actual claims to expected claims of 150%.

The virtue of the expected exposure method is that we can develop the expected exposures in total, without any analysis of the distribution by age or other characteristics of the number of actual exposures.

This expected exposure method can also be applied to the analysis of the experience as to recoveries and deaths among the disabled persons. In this case, the exposures would consist of the number of persons on the disability rolls separated by sex, age at onset of disability, and years elapsed. With this initial analysis as a base, each year's disability terminations and new claims can be used to update the exposure base, without the necessity of a complete reinventory of the disabled lives. Secondly, from the terminations during the year (or quarter or other interval as may be desired) the termination rates can be computed in the conventional manner. Further, the method of expected exposures can be used to make more detailed and specialized analyses of termination, for example, according to diagnosis, occupational classification, area of residence, etc.

On the following page there is a technical analysis of the expected exposure method. This method is not an approximation to the conventional method of analysis, which utilizes the ratios of actual to expected occurrences as a base of comparison. Both methods represent, as to the overall ratio developed, an average of the actual to expected claims at each age or for each cell into which the experience is subdivided. The conventional method produces an average, weighted according to the expected claims.

EXPECTED EXPOSURE METHOD
DEFINITIONS

	ACTUAL VALUES	EXPECTED VALUES
CLAIMS	$C' = (E' r')$	$C = E' r$
CLAIM RATES	r'	r
EXPOSED TO RISK	$E' = (C'/r')$	$E = C'/r$

COMPARISON

$$\frac{\text{ACTUAL CLAIMS}}{\text{EXPECTED CLAIMS}} = \frac{C'}{C} = \frac{E'_x r'_x + E'_{x+1} r'_{x+1} + \cdots}{\sum C_x}$$

$$= \frac{\frac{E'_x r_x r'_x}{r_x} + \frac{E'_{x+1} r_{x+1} r'_{x+1}}{r_{x+1}} + \cdots}{\sum C_x}$$

and, since $E' r = C$

$$= \frac{C_x}{\sum C_x} \cdot \frac{r'_x}{r_x} + \frac{C_{x+1}}{\sum C_x} \frac{r'_{x+1}}{r_{x+1}} + \cdots$$

$$\frac{\text{EXPECTED EXPOSURE}}{\text{ACTUAL EXPOSURE}} = \frac{E_x + E_{x+1} + \cdots}{E'_x + E'_{x+1} + \cdots}$$

$$= \frac{\frac{C'_x}{r_x} + \frac{C'_{x+1}}{r_{x+1}} + \cdots}{\sum E'_x}$$

$$= \frac{\frac{C'_x \; r'_x}{r'_x \; r_x} + \frac{C'_{x+1} \; r'_{x+1}}{r'_{x+1} \; r_{x+1}}}{\sum E'_x}$$

$$= \frac{E'_x}{\sum E'_x} \cdot \frac{r'_x}{r_x} + \frac{E'_{x+1}}{\sum E'_{x+1}} \cdot \frac{r'_{x+1}}{r_{x+1}} + \cdots$$

Therefore both ratios, for all ages combined, are true averages of the ratios of actual to expected for individual ages, the weighting being, respectively, by expected claims and actual exposures.

in each cell, whereas the expected exposure method weights the same ratios according to the amount of actual exposure. Both results are accurate and statistically meaningful, just as the arithmetic mean and median are accurate statistical measures, yet answering different questions. The expected exposure method, putting greater weight on the ages or other classifications involving lower rates of expected claims, is much more sensitive to changes in the experience among risks having the lower probability of claim and hence the higher standard deviation. This sensitivity is illustrated in the following table which, by use of simple model, compares the two methods under different hypotheses.

Comparison of
Conventional and Expected Exposure Methods

Age	Number of lives exposed (1)	Conventional Method: Tabular claim rate (2)	Tabular no. of claims (3) (1)x(2)	Actual no. of claims (4)	Actual to tab. claims (5) (4)÷(3)	Expected Exposure Method: Expected exposures (6) (4)÷(2)	Expected to actual exposures (7) (6)÷(1)
(A) Actual experience = 100% of tabular							
25	1,000	.001	1	1	100%	1,000	100%
40	1,000	.002	2	2	100	1,000	100
55	800	.010	8	8	100	800	100
Total	2,800		11	11	100	2,800	100
(B) An additional claim at age 25							
25	1,000	.001	1	2	200%	2,000	200%
40	1,000	.002	2	2	100	1,000	100
55	800	.010	8	8	100	800	100
Total	2,800		11	12	109	3,800	136
(C) An additional claim at age 40							
25	1,000	.001	1	1	100%	1,000	100%
40	1,000	.002	2	3	150	1,500	150
55	800	.010	8	8	100	800	100
Total	2,800		11	12	109	3,300	118
(D) An additional claim at age 55							
25	1,000	.001	1	1	100%	1,000	100%
40	1,000	.002	2	2	100	1,000	100
55	800	.010	8	9	112	900	112
Total	2,800		11	12	109	2,900	104

APPENDIX D

ANALYSIS OF EXPERIENCE IN SELECTED STATES

To illustrate the application of the method proposed in Part III of this report, an illustrative analysis of the experience of four states is presented in Tables 12 and 13. Through the Office of the Actuary in the Social Security Administration, 1972 claim data were obtained in the format used in the report Social Security Disability Applicant Statistics/1970*, viz. Table 8 for the analysis by diagnostic group and Table 31 for the analysis by occupational group.

From Tables 226 and 239, 1970 Census Reports, Volume PC(1)D-1, and Table 3, Volume PC(2)-7A, data were obtained relative to the distribution of the civilian labor force by sex, age group and certain occupational groupings. By relating the census totals for all occupations to the number of persons "disability insured" less the number on the disability rolls, ratios of numbers exposed under DI in 1972 to employed persons enumerated in the 1970 census were obtained for each sex and age group cell. Using these ratios, estimates were made as to the numbers exposed under the DI program in these occupational, sex and age categories. Countrywide disability incidence rates for each such cell were developed as shown in Table 10, below.

The occupations included in the "non-hazardous category" are: professional and technical, managerial, clerical, and sales, as listed in Table 226 referred to above. The same source provided information as to the number of persons engaged in farming. For those employed in police and fire protection, Table 3 of PC(2)-7A was used. In the analysis presented in Social Security Disability Applicant Statistics the list of new DI awards is partly in terms of occupations and partly in terms of industries. Included in the hazardous category were also the construction, transportation (excluding railroad) and mineral extraction industries.

* Philip R. Lerner, Social Security Disability Applicant Statistics, 1970 DHEW (SSA) 75-11911.

Table 10 - Men

Development of Incidence Rates for the Indicated Occupational Categories
1972 Experience - United States Totals

AGE GROUP	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64
Number of New Disability Awards								
Non-hazardous occupations	2,844	1,705	2,327	3,552	6,039	9,662	15,213	22,978
Hazardous occupations or industries	6,098	3,775	5,304	7,675	12,070	19,283	30,564	39,190
All others	9,790	5,162	6,348	8,482	13,732	21,423	33,335	43,169
Estimated DI Exposures in 1,000's*								
Non-hazardous occupations	7,136	2,535	2,262	2,279	2,224	2,054	1,586	1,251
Hazardous occupations or industries	3,069	1,162	1,089	1,097	1,120	1,035	893	743
All others	6,925	1,895	1,609	1,623	1,695	1,564	1,519	1,181
Disability Incidence Rates Per 1000 - 1972								
Non-hazardous occupations	.399	.673	1.029	1.558	2.715	4.704	9.590	18.369
Hazardous occupations or industries	1.987	3.248	4.873	6.997	10.774	18.638	34.238	52.739
All others	1.414	2.724	3.946	5.227	8.102	13.701	21.945	36.553

*The exposures used in computing the incidence rates have been rounded in this table; hence some of the rates may differ slightly from the quotient of the number of claims divided by the stated exposures.

Table 10 - Women

Development of Incidence Rates for the Indicated Occupational Categories
1972 Experience - United States Totals

AGE GROUP	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64
Number of New Disability Awards								
Non-hazardous occupations	2,698	1,577	1,908	2,968	5,384	8,161	12,509	14,668
Hazardous occupations*	34	15	34	43	119	314	392	554
All others	2,822	1,707	2,346	4,052	7,254	14,100	20,969	21,050
Estimated DI Exposures in 1,000's**								
Non-hazardous occupations	7,449	1,384	1,170	1,375	1,575	1,589	1,296	1,058
Hazardous occupations	50	16	14	16	18	19	18	16
All others	2,621	775	700	822	997	1,006	926	740
Disability Incidence Rates Per 1000 - 1972								
Non-hazardous occupations	.362	1.139	1.630	2.158	3.419	5.136	9.649	13.859
Hazardous occupations	.687	.941	2.464	2.654	6.467	16.882	22.022	35.063
All others	1.077	2.203	3.353	4.931	7.277	14.010	22.650	28.454

*The women enumerated under hazardous industries were evidently subject to little or no occupational hazard; their awards were added to the non-hazardous group and only those engaged in farming, fire protection and police work are included in the hazardous category.

** See note on Table 10- Men

For the analysis by individual states certain limitations in available data were encountered. The non-hazardous occupational categories were found in Table 174 of volume PC(1)D-1, but no analysis by industry was located. Table 174 also provided reasonably compatible figures for farming, but for the police and fire categories it was necessary to use the category "protective services" and for mining, the category "mining operatives not elsewhere classified," obviously not as inclusive as the national listing under the mineral extraction industry. Thus the comparisons of expected to actual exposures are limited to the foregoing classifications. However, the data available with respect to the number of awards followed the Social Security publication and it was possible to use the same three categories of disability incidence rates, as presented in Table 10.

By using the above incidence rates and applying the Anderson Expected Exposure Method, it was possible to compare the experience in each of the selected states with that for the country as a whole.

Three contiguous states with many similarities in demographic characteristics, economy, and climate were chosen, viz. the Dakotas and Nebraska. The fourth state was selected on the basis of its standing as measured by the crude average rate of disability incidence. The shortcomings of this as a measure of any significance have already been discussed.

To explain the method and its application more fully an example is set forth in detail for men age 55-59 in non-hazardous occupations. Table 11 shows the anatomy of the calculation.

Table 11

Details of Application of the Expected Exposure Method

To

Comparisons of Social Security Disability Incidence Rates

Men, ages 55-59 - Non-hazardous Class

	US	North Dakota	South Dakota	Nebraska	West Virginia
1)Number of New DI Awards in 1972	15,213	35	41	100	270
2)Disability Incidence Rates per 1,000, Table 10	9.59	9.59	9.59	9.59	9.59
3)Expected Exposures, in 1,000's (1) ÷ (2)	1,586.34	3.65	4.28	10.43	28.15
4)Number Employed, 1970, in Non-hazardous Occupations as defined above, (Table 226 for US and Table 174 for the states)	1,503.6	3.24	4.12	9.64	9.98
5)Ratio for ages 55-59, men, of numbers exposed under DI Program in 1972 to the number employed in 1970	1.055	1.055	1.055	1.055	1.055
6)Estimated Actual Exposure in 1972 (4) x (5)	1,586.30	3.42	4.35	10.17	10.53
7)Index of state experience in relation to the National average: ratio of Expected to Actual Exposure =(3) ÷ (6)	100%	107	98	103	267

In Tables 12, for men, and 13, for women, ratios of expected to actual exposure are shown for the four states in comparison with the United States average with respect to broad occupational groupings. Also, for all occupations combined, and for all non-hazardous occupations, the ratios are shown by age group.

As mentioned in Part III the measurements shown in Tables 12 and 13 are in the nature of standardized averages, corresponding to "age-adjusted rates." The standardization however encompasses not only age, but sex, and occupational group in the broad categories exhibited. This method of analysis permits us to compare, for example, North Dakota with West Virginia without having the results distorted by the very different composition of the respective populations according to industry.

Table 12
Comparison of Disability Experience in Selected States - Men
Standardized for Sex, Age, and Occupational Hazard

Occupational Category	US	North Dakota	South Dakota	Nebraska	West Va.
RATIOS OF EXPECTED TO ACTUAL (estimated) EXPOSURES					
Professional & Technical	73%	71%	98%	95%	201%
Managerial	83	58	57	59	180
Clerical	143	186	179	136	305
Sales	141	75	99	199	314
All Occupations					
All Ages	100	57	86	77	201
Ages 20-29	100	68	119	100	185
30-34	100	86	45	74	152
35-44	100	48	82	63	195
45-54	100	39	78	64	229
55-59	100	63	73	67	238
60-64	100	68	71	55	241
Non-hazardous					
All Ages	100	83	94	108	233
Ages 20-29	100	57	103	136	216
30-34	100	124	0	132	108
35-44	100	110	131	91	239
45-54	100	65	95	80	283
55-59	100	107	98	103	267
60-64	100	78	85	62	302
Farming					
All Ages	65	35	32	23	385
Ages 20-29	68	40	41	23	480
30-34	81	26	22	11	535
35-44	64	23	20	19	206
45-54	61	31	34	23	349
55-59	61	40	38	25	443
60-64	63	60	36	36	339
"All Other" Occupations					
All Ages	100	51	115	72	174
Ages 20-29	100	84	154	89	159
30-34	100	89	106	43	164
35-44	100	23	78	57	167
45-54	100	30	108	70	195
55-59	100	60	89	69	219
60-64	100	71	53	64	203
NUMBER OF NEW AWARDS (claims)					
	329,720	735	899	1,683	6,836
CRUDE INCIDENCE RATES PER 1000 (for comparison)					
Incidence Rate	6.66	4.50	5.63	4.43	16.41
% of US Average	100%	68	85	67	246

*This is a reproduction of Table 12 from the preliminary actuarial report.

Table 13

Comparison of Disability Experience in Selected States - Women

Standardized for Sex, Age, and Occupational Hazard

Occupational Category	US	North Dakota	South Dakota	Nebraska	West Va.
		RATIOS OF EXPECTED TO ACTUAL (estimated) EXPOSURES			
Professional & Technical	84%	147%	44%	74%	115%
Managerial	79	147	25	25	139
Clerical	103	44	22	102	322
Sales	106	113	71	93	169
All Occupations					
All Ages	100	92	47	77	243
Ages 20-29	100	129	38	91	221
30-34	100	83	77	76	206
35-44	100	48	41	79	237
45-54	100	73	48	65	308
55-59	100	74	60	59	243
60-64	100	59	50	58	216
Non-hazardous					
All Ages	100	94	36	88	233
Ages 20-29	100	112	0	104	216
30-34	100	112	96	123	108
35-44	100	54	32	65	239
45-54	100	95	58	73	283
55-59	100	92	72	60	267
60-64	100	48	59	70	302
Professional & Technical					
All Ages	84	147	44	74	115
Ages 20-29	81	187	0	102	122
30-34	86	223	21	0	0
35-44	86	128	0	84	0
45-54	80	80	46	27	109
55-59	86	93	121	55	106
60-64	96	51	84	75	231
"All Other" Occupations					
All Ages	100	89	68	61	262
Ages 20-29	100	167	113	65	202
30-34	100	29	45	0	273
35-44	100	27	60	105	288
45-54	100	45	34	54	344
55-59	100	57	49	59	257
60-64	100	71	40	39	195
		NUMBER OF NEW AWARDS (claims)			
	125,678	217	204	586	2,356

Note: The only "hazardous"occupation studied in the analysis of women's experience was farming, an occupation in which the number of exposures were not significant.

To illustrate the effect of this standardization, comparisons are made in Table 14 between the crude average incidence rates shown in the publication of the SSA for 1970 and the indices (ratios of expected to actual exposure) developed above. Also shown in Table 14 is the approximate average age of the populations covered in each state under the DI program, as determined from the estimates of the actual exposures by age group.

Table 14

Comparison of Crude Rates and Indices

1972

Area	No. of Awards	Estimated Exposure in 1000's	Crude Rate[1] Rate	Crude Rate[1] Ratio to US	E/A Ratio[2]	Approximate Average Age Of Exposures
			MEN			
US	329,720	49,544	6.66	100%	100%	38.4
North Dakota	735	163.3	4.50	68	57	40.3
South Dakota	899	159.7	5.63	85	86	39.7
Nebraska	1,683	380.3	4.43	67	77	39.0
West Virginia	6,836	416.6	16.41	246	201	38.8
			WOMEN			
US	125,678	25,649	4.90	100%	100%	38.3
North Dakota	217	61.8	3.51	72	92	38.5
South Dakota	204	72.6	2.81	57	47	39.4
Nebraska	586	186.4	3.14	64	77	38.5
West Virginia	2,356	163.0	14.45	295	243	39.6

[1] Disability incidence rate per 1000 (= total awards ÷ total exposures)

[2] Ratios of expected to actual exposures.

The illustrative analyses shown in Tables 12 and 13 indicate a tremendous variation in the experience among the four states. While the method used to develop the exposures produces approximations of the true values, it is believed that the results shown by the analysis speak for the basic validity of the procedure. For example if the ratio of 233% for West Virginia men in non-hazardous occupations is an overstatement, then it must be balanced by understatements in other categories, and yet we find few examples of ratios less than 100% in this state. If the results of this analysis were, for example, a 90% ratio in one state as compared to 110% in another state, the difference could probably be shown to be statistically not significant. However when the differences are so great and such consistency is found throughout the entire analysis, not only by occupational grouping but by age group and sex, the differences can hardly be dismissed as either errors in the methodology or statistical aberrations.

One particularly interesting indication is that, in West Virginia, the men engaged in mining show one of the better ratios, despite the fact that, as mentioned above, the category of "mining operatives, n.e.c." probably is far from as inclusive as the claims reported by the SSA under the category "Mining Industry." Doubtless the explanation lies in the fact that most disabled miners have been covered under the Black Lung Program enacted in 1969, who would otherwise have been recipients of DI benefits. The reported number of DI claims in 1972 on mining operations in West Virginia was only 378. Based on data in the Staff Report a very much greater number received benefits under the Black Lung Program.

In the short time available for this analysis it was not possible for me to make a complete study of the Census Reports and the comparability of certain of the listings with the occupational classifications used by the SSA. No doubt, with further time, the analyses could be considerably improved and extended also to other occupations. Alternatively, the SSA might consider using an occupational coding and classification that would be completely compatible with the existing census reports. While there is a tremendous movement in and out of any given occupation, it is believed that the total numbers of persons, in relation to the total labor force would not change greatly from one census date to the next and that for at least the next few years the 1970 census data can be used for the purpose illustrated by the foregoing calculations.

APPENDIX E

COMPARISON OF STATES BY DIAGNOSTIC GROUPS

Unlike the Netherlands experience, the high incidence rates in West Virginia can not be explained by a disproportionate number of disabilities resulting from causes of a particularly subjective nature. According to the SSA study referred to above, West Virginia ranked among all states as follows, based on the 1970 crude average disability incidence rates.

Highest for all causes combined
Highest on neoplasms, respiratory, and mental disorders
Second highest in disorders of the nervous system and sense organs
Third highest in disorders of endocrine; nutritional, and metabolic causes and accidents
Sixth highest in disorders of the musculoskeletal system

Thus the high level of disability is not concentrated in a few causes.

As mentioned earlier a disturbing trend is the high incidence of mental disease among the younger workers. The same is true of nervous disorders. The importance of these causes among worker disabilities occurring before age 30 is highlighted by the data in Table 15.

Table 15

MENTAL DISORDERS
and
DISORDERS OF THE NERVOUS SYSTEM AND SENSE ORGANS

Area	Number of Disabilities in 1972 - Ages under 30		
	All Causes	Mental, Nervous and Sense Organs	
		Number	% of Total
US	24,286	10,645	44%
North Dakota	58	31	53
South Dakota	86	45	52
Nebraska	160	70	44
West Virginia	389	149	38

MEMORANDA ON DISABILITY INSURANCE PROGRAM

MEMORANDUM

From: William Roemmich, M.D.
Subject: Medical aspects of the definition of disability.

Mr. Yourman's reports have covered the legal aspects of the decision-making process with special emphasis on the legal definition. From a medical point of view, I believe, there are more detailed technical problems surrounding the disability decisionmaking process which fashion the high rate of appeals from administrative decisions. These technical problems also fashion the high rate of reversals.

The *end point* sought in the disability decision is "inability to engage in any substantial gainful activity by reason of a medically determinable impairment * * *." This *end point* cannot, I believe, be reliably determined in a given individual even if limited completely to the purely medical aspects. The concern with vocational aspects has made the decision end point even more rather than less nebulous. Decisions have become both speculative and fragile. As these fragile and speculative decisions move to higher levels of adjudication changes are frequent. As the frequency of such change becomes widely disseminated the rate of decision appeals increases.

Decision variability has spawned acrimonious conceptual debates with program costs in recent years always exceeding expectations.

There are at least two significant variables in today's definition of "*inability to engage* * * *". One is *impairment*. The second is *vocational factors*. Either variable alone can remove a man from the labor market. The ratio of disabled in a given program will depend on how each variable is weighted, its reliability in the decisionmaking process and population characteristics where the decision is applied.

The weights have changed from time to time. Currently in the Commissioner's proposal, heavy emphasis on vocational aspects may well fashion a permanent change. The basic definition, "inability to engage in any * * * activity by reason of * * * impairment" has, by the application of policy recommended by the Commissioner, been changed to "inability to engage in usual work by reason of age, education and work experience providing any impairment is present." This operationally revised definition appears to be applied already at all levels.

I doubt that the decision changes reflect changes in population characteristics of title II. Over an 18-month period, ending December 1973, my last report to the Director and Commissioner revealed that only 36 percent of title II applicants' impairments met or equalled the published medical criteria. At the same time, and on the same population, 55 percent were allowed by States. Large volumes of initial State *denials* moved on to higher levels where large volumes of initial denials are reversed to allowances. The medical characteristics of a population do not change that much over the time lapses between initial and subsequent higher level decisions. The reversals must be on a basis other than medical impairment changes.

Even if all concerned were willing to return to the application of the statutory definition "inability to engage in any substantial gainful activity by reason of a medically determined * * * impairment * * *" decision stability might not necessarily return. The decisionmaking process must be systematized. The decision end point, inability by reason of impairment, in my opinion, cannot be achieved in an individual applicant, and decision results must be based upon assumptions as these affect masses rather than individuals. There is no known technology which can select individually those who cannot from those who can engage. For this reason, some type of approximation to the present individualistic disability concept needs to be found. The individual decision approach should give way to a "*collective assumption*".

Such an assumption was from the very beginning, and to a partial degree, is still being used. It is embraced in the published medical standards. These medical standards *may* not separate to everyone's theoretical satisfaction the applicant population into those who can or cannot meet the physical and mental demands of *any* job in the labor market. What is *not* recognized in these theoretical arguments is that there is no proof that the medical standards do not so separate the applications. In my opinion, the medical standards appropriately applied do a fairly accurate job in separating the able from the disabled by reason of impairment. The appropriate use of medical standards can result in uniform nationwide stable decisions. The observed large decision variations noted, in GSA, and operational studies, can be reduced by the appropriate application of current medical criteria.

The current medical evaluation standards do represent an approximation to the concept "inability to meet the physical and mental demands of any job in the labor market or perhaps also any substantial gainful activity." *I would like to present at least two types of evidence suggesting that medical criteria represent such an approximation.*

The first type of evidence flows from the method used to evolve existing medical standards. When early 1955–60 decisions were made there was very little disability team guidance as they exercised their judgments allowed or denied. Their guidance was the statutory language which has over the years undergone only minor changes. The medical standards were created by analyzing in the central agency the collective experience of hundreds of physicians. These physicians had behind them a vast medical literature not only describing the many impairments but the physical and mental restriction produced by such impairments. The early decisionmakers had behind them many years of observation related to the handicaps in the labor market produced by the applicant's presented impairments as defined by symptoms, signs, and laboratory findings. The medical staff in the central agency assembled these collective physician judgments into *sets* of symptoms, signs, and laboratory findings. These sets of symptoms, signs, and laboratory findings used to make the medical standards were derived as byproducts of the applicant's past medical care. These sets of symptoms, signs, and laboratory findings represented what in the collective judgment of several hundred physicians in all geographic areas believed to represent the critical medical data separating applicants who retained ability to meet job demands from those who had lost such ability.

The second type of evidence that medical criteria separate applicants into appropriate groups flows from a retrospective study of allowed and denied applicants. At the time the study was done and especially the time covered by the study represented a period in disability decisionmaking when medical criteria carried, I believe, greater weight compared to vocational factors. Since then, medical criteria have, I believe, been refined and would achieve an even better separation. Perhaps another study is indicated. The early study was done by Johns Hopkins School of Hygiene. It revealed that criteria used at the time did select those with more severe impairments as measured by the death rate in allowed versus denied disability applicants. In addition to the death rate differences other indexes of morbidity suggested a separation into severe versus less severe impairments.

The severity level of impairments selected by the medical criteria is not a narrow severe level as is often quoted "2 limbs lost". It represents a range. It does so in recognition that an impairment does not affect all individuals equally.

The most classic example of the wide range of severity represented by the medical standards is found in Section 9.00B3 and 9.00B1. The more severe set 9.00B3 is there merely to place within the standard the severe impairments often presented at the time of work stoppage and filing. The less severe 9.00B1 presents a condition though much milder yet thought to be sufficiently severe to produce a reasonable association between impairment and work cessation when the latter occurs.

The medical criteria as currently structured can, if properly applied, result in repeatable and uniform decisions, largely uninfluenced by the applicant's wishes or needs. Of the *three* types of medical data, symptoms, signs, and laboratory findings, only symptoms can be moulded by the applicant to his advantage. For that reason, symptoms alone cannot by themselves describe an impairment that meets the medical standards. Sets of medical data always include signs or laboratory findings. The latter cannot be fashioned by the applicant, the examining physician, nor the decisionmaker. These *sets* of medical data as expanded over the years guide the judgments of disability decisionmaking physicians.

The reporting physician on the other hand may report an opinion about the applicant's remaining ability to function on other sets of clinical data. When the decisionmaker is permitted to deviate from the published criteria using opinion evidence as a basis for his decision, results will show great variability. This happens often at the appeals level. At the appeals level the collective physician judgments upon the general disability concept is ignored. Cases which go to appeals with few exceptions do not meet or equal the medical criteria. The ALJ then gets an opinion from either a physician or a "vocational expert." In most instances it is a "vocational expert." Judgments in individual situations without the influence of standards are highly speculative. Therefore we have a situation where at the administrative decisionmaking level physicians judgments are guided by medical standards. At the appeals level judgments about reexamining physical function are made by "vocational experts." There are no standards which guide this "vocational expert's" judgment. *This use of unguided judgments is the most critical reason for the large volume of decision changes.*

Neither are the published medical sets of signs and laboratory findings all inclusive. To include all sets of data possible would produce an encyclopedic volume of medical standards. It would need to cover also impairment combinations so frequent in an older population. This problem has been extensively studied. Today's solution resides in the "equivalence" concept. The determination of equivalence draws very heavily on a physician's professional knowledge of disease and the effects these have in combination upon impairment. Yet, this judgment is always guided by the severity level set by the medical standards. At all levels of decisionmaking where the basis of allowance rests upon the "equivalence" concept such a judgment must be exercised by one of the Secretary's physicians. This should apply also to the meets concept.

There are other areas in the disability decisionmaking process where judgments are equally demanding as in the "equivalence" phenomenon. Such an area in the disability decisionmaking process exists in the collection of appropriate medical evidence. An initial claim by the applicant, even after a medical report, often provides limited leads as to the possible nature of the applicant's problem. For that reason a judgments about appropriate documentation draws upon a most sophisticated professional training. When is an applicant's claim documented so that reliable judgments about impairment severity flow? When does existing medical data suggest that other relevant data may be obtainable? These judgments can only be made by a physician. At the appeals level these judgments are poorly performed for impairment rating. Thus, there results either poor documentation for the disabling impairment or useless documentation for irrelevant or noncontributing or nonexisting impairments.

The *disability decisionmaking process* must be carefully defined, and administratively enforced. There is administrative emphasis in first disability decisionmaking levels that decisions require a team action. The contract under which a State operates requires such a team action. One member of the team must be a physician. The *team* concept is equally good for the appeals process and is essential. In addition, the responsibilities of each team member must be carefully defined. *If this responsibility is not well defined there will be confusion, confrontation, delay, and lack of uniformity.*

There has been considerable central office efforts to create a decisionmaking model. Such a model was used in the central office quality assurance review. The effect of such a model on predicting and controlling program costs is apparent from Table III below. Table III is taken from the report reflecting the model's use. It was reported to the Bureau Director and Commissioner. The disability concept used included both medical and vocational factors. The two team members' functions were tacitly agreed upon.

The sample for model application was selected centrally in a random fashion. The sample included only cases where requirements of entitlement had been met. The cases flowed to medical staff where the physician had to decide first whether medical evidence was sufficient for impairment rating. If it was insufficient a medical note was prepared specifying what was needed. These cases were to be returned to State for documentation and a new decision. It was again returned to central office for a second review. If medical evidence was sufficient

the central office physician rated on a continuous scale from 1 to 5. If the impairment manifestations were those found in the medical criteria it was rated 5a. If they were not found but in the physician's judgment were "equivalent" it was rated 5B. If the impairment was fashioned by several diseases each medical specialist could rate the disease or diseases in his specialty and the ratings were combined by a set of previously determined rules. Applicants rated 5a or 5b are allowed except when they are engaging. Applicants rated 3 or 4 could be allowed or denied based upon *vocational factors*. Applicants rated 1 and 2 were to be denied on a medical basis alone that such impairment could not possibly be the reason for inability to engage by reason of impairment. Table III below is taken from the medical report of that 18-month study.

TABLE III.—*Ratings on all cases reviewed by MCS in 2½ percent sample study, July 1972–December 1973, including those returned to us after State agency development of medical evidence*

			Stage agency decision			
MSC rating	Allow	Percent	Denial	Percent	Total	Percent
5a	5,640	44.80	110	1.00	5,750	24.40
5b	2,754	21.88	57	0.52	2,811	11.93
04	1,466	11.65	359	3.27	1,825	7.74
03	1,490	11.84	2,309	21.03	3,799	16.12
02	1,027	8.16	6,455	58.79	7,482	31.75
01	211	1.68	1,690	15.39	1,901	8.07
Total	12,588	100.00	10,980	100.00	23,568	100.00

The bureau medical staff's impairment ratings have been made for many years. The rating reliability when exercised by the central office medical staff is very high. The experimental data is available from the bureau. This table presents a quantitative description of impairment severity in a title II population. Although I do not have access at this time to previous data my memory tells me that ratios of applicants in each rating category remained quite constant over the years in title II. I have no information for title XVI. Such information should be available from Social Security Administration.

The technique of impairment rating has unique advantages for estimating program costs in the event of contemplated disability definition changes. This table presents the volume of applicants allowed on a basis other than meeting or equalling the medical criteria. Only 24 percent of title II applicants met the medical criteria. An additional 12 percent equaled the criteria. The largest group, 40 percent, were rated (1 or 2), no impairment or impairment so mild it would be medically unreasonable to find that work cessation was impairment related. An additional 24 percent (3 and 4) had impairment where decision to allow or deny was based upon the influence of vocational factors. It is obvious that the State did not follow the model. Allowances were made at all levels of impairment including those rated (1) where in the central office medical judgment there was no impairment. The allowances found in impairments rated 1 and 2 represents, I believe, the State's use of "primary impairment" concept.

The system described here could be used at all levels of adjudication. Physician training is minimal. Team members must have independence to exercise judgments. Standards are needed in all facets of decisionmaking. *I believe this decisionmaking model is a workable model. It would result in nationally uniform decisions. Program costs could be accurately predicted providing the team approach and the disability decisionmaking model were implemented at all levels.*

In my personal opinion applicants rated 3 and 4 do not represent those with "inability to engage . . . by reason of impairment." To make program predictions, should such level of impairments be embraced by a statutory definition, we need an age, education, and work experience breakdown for each medically rated category where it is contemplated to use vocational factors.

If the assumptions which flow from the described impairment ratings can be used with the present statutory disability definition it would, in my opinion, represent the simplest solution to the appeals workloads and increasing program costs.

Decisions at all levels would remain stable. The incentive for appeals would decrease as demonstrated in the wives and widows segment of the program. Cost would be accurately predictable.

MEMORANDUM

From: William Roemmich, M.D.
Subject: Critique of proposed regulation No. 4, subpart P, and regulation No. XVI, subpart I, proposed amendments to regulations to set forth guidelines for the adjudication of disability cases in which vocational factors (age, education, and work experience of the individual) must be considered.

This proposal is presented as a refinement of existing regulation Section 404.1502. The claim is made that the latter has not provided "precise and concise rules." It states that such precise and concise rules have been used and can be found as administrative documents.

The proposal gives as a reason for increased need, to formalize and refine heretofore administrative rules, title XVI applicants who often have no work experience. Combining the latter statement and the schedules on pages 49 through 63 and especially item 201.01, it appears that the intent of this proposal will result in additional allowances and program costs. Where such lack of experience on the part of title XVI applicants is due to a medically determinable impairment there should be no need for this policy as existing medical criteria in Sections 1.00 through 13.00 should find such applicant's disabled.

The proposal reiterates what is in current regulations, namely that the impairment must be a primary cause. What degree of impairment severity, therefore, is required as "primary" cause?

An illiterate 50-year-old man who has never worked is *vocationally* "disabled." He needs no medically determinable impairment to fashion his "disability." A man at any age highly skilled and highly educated previously employed for years can be disabled by a medically determinable impairment alone. These two statements, if acceptable, illustrate that either vocational factors or medical impairment factors can eliminate a man from the labor market. The issue presented by the proposal, therefore, is how much of each does the "disability" statute intend.

I shall describe the characteristics of each process currently used. First, the "impairment" process and secondly, the "vocational factors" process. This may be helpful in adjudication of the role each should play in the disability decision process.

Early in the program, the first decisions being made in July, 1955, there was an emphasis on the medically determinable impairment. The committee hearings preceding the statutory enactment of title II had spawned great controversies. Would not applicants presenting the same medical facts have opposite decision results? This belief arose out of the Nation's workmens' compensation experience.

It was felt by some and especially by those representing the Administration that evaluation policies, and more specifically medical standards, could be fashioned which would make a disability decision uniform, reliable, acceptable, and actuarily controllable. It was hoped

also that the operation would not make heavy demands upon the medical profession of the Nation and that decisions could be made from the evidence which was adduced and recorded in the process of medical care.

The "disability" operation evolved medical evaluation standards. The Administration refined these from time to time as experience grew. These standards were confidential and very few people had access to them, especially physicians, attorneys, and perhaps most important, the applicants themselves. One of the reasons for the secrecy was thought to be that evaluation standards once published would reveal to physicians what was needed. As the patient's advocate they would report what was required. In addition, patients would "develop" the symptoms needed and create actuarial disaster. The fears of such consequences with public standards against confidential standards were unfounded. Physicians reports were not prepared with one eye on the decision to be made. Medical evaluation standards could be and were designed that data to be used in decisionmaking could not easily be fashioned to the applicant's advantage either by the applicant or the physician. *Symptoms* which could be fashioned by the applicant played a very minor role in such *standards*. Physical findings and laboratory data which could be easily verified form the basis of medical criteria. Clinical experience concerning the dynamics of chronic illness—long continued and indefinite at first to at least 12 months later—could be used by physician evaluators to help in placing reported medical data into proper perspective.

Symptoms alone could not be used as a factual basis for decisions (see Section 404.1501C). Thus, medical standards ultimately published, prior to the Freedom of Information Act, were devoid of symptoms as the sole basis for decisionmaking. Neither did the publication of standards increase program costs as earlier feared. Instead the publication served to tell all concerned what type of medical data is needed.

These historical events are related to help create a perspective for principles to be sought in any proposed evaluation standards. *The data should be relatively independent of either applicant, examiner, or evaluator, to fashion according to their interests or preferences or prejudices.* (See definitions of symptoms, signs, and laboratory findings in Physicians' Handbook, page 3.)

A continuous random sampling of State decisions reveals that the medical evaluation standards continued to separate title II populations into those who do or do not meet these standards. Such population separations have occurred in rather constant ratios over many years of operating experience. A study made by Hopkins indicates that medical standards do separate those more likely to die from those less likely. Whether such standards separate the disabled from the nondisabled is a more difficult question to answer. There are in the statute and regulations factors of entitlement. These may prevent an applicant from being found disabled regardless of how severely he is restricted by his medically determinable impairment. Insured status based on work history being the most important.

There is some concern that a single level of impairment severity as is the case with the medical standards is "unrealistic." The "vocational characteristics" of the title II population were such that a less severe level is needed for those with adverse "vocational" characteristics.

One response to this concern, without agreeing that the concern is justified, was the disability program medical staff's experimental creation of a five-degree-of-severity classification system. Signs and laboratory findings formed the crux of the classification system. This five-degree-of-severity classification system has been extensively studied by the Bureau of Disability Insurance. Its reliability has been documented and such data should be available from the disability operation.

The Commissioner's proposal for vocational factors presents a system, some aspects of which might be useful in conjunction with the five-point medical rating system. The factors as presented in the Commissioner's proposal have, to my knowledge, not all been studied from the point of reliability. The physical functional capacities of applicants as bending, pushing, pulling, walking, etc., are for the most part medical symptoms and can be fashioned by applicants to their advantage. Even if such functional restrictions were more general, as the proposal suggests, resulting in classifications of capacity for sedentary, light or medium work as proposed in the schedules on pages 49 through 63, such medical classifications cannot, in my opinion, be made reliably by physicians. Although there may be a rough relationship between the five medical classifications discussed above and degrees of applicants' remaining capacity for physical and mental functions, to circumscribe these into rigid definitions as proposed on page 48 and 49 of the Commissioner's proposal would result in wide variability. These definitions were taken from the description of jobs and not the remaining function of people. Jobs can be so classified; people cannot.

The "vocational factors" age, education, and work experience as used to create the 82 categories of vocational adversity present some real problems in evaluation.

Age can in our society be easily and reliably determined in most instances. However, the descriptive terms—advanced, closely approaching advanced, younger, etc.—are, I believe, treacherous terms and will create great variability and costly litigations through appeals to higher levels of decisionmaking. Neither will decision reliability be greater at the appeals level. If age is to be used as a factor, it should be "50 or over", "55 or under", "48.5 or 23.2." This would produce reliable results and avoid evaluator prejudice. Leaving to evaluator judgment the vagaries of how age affects a given man's capacity to enter the labor market will result in uneven treatment of applicants who apply for disability.

Educational achievement as measured by years in formal education has possibilities as a "vocational factor." Such length of time in formal education does not consider men though having spent no time in formal education have, through informal courses and on job training, achieved significant levels of education. However, I would not exclude a measure of educational achievement by length of time in formal education. This may be the most reliable way to solve the problem should the Congress feel the necessity for using this characteristic as a factor in fashioning the disability decision.

I would not recommend using achievement tests since these are costly, require special personnel, and presuppose maximum effort and cooperation on the part of applicants. Most achievement tests have no reliability scales—as the K scale in the Minnesota multiphasic personality test, for instance. These tests require cooperation and maximum

effort. Would disability applicants provide maximum effort when such effort is contrary to their best interest.

The concept in the schedules proposed in tables 62 through 74 provides that training for "entry" or does not provide for direct "entry" into the labor market may well be another speculative one. I believe that judgment whether an educational process helps direct entry or does not help direct entry into the labor market is that a judgment would produce very troublesome variations. Any type of education assists man's entry into the labor market. The basic skills, reading, writing and arithmetic do that. Certainly there are special courses which do so more directly but the line of separation becomes vague and I would not recommend the use of such a concept.

Previous work experience.—Jobs can be and have been classified according to skills demanded. The requirement of classifying people whether they can or cannot transfer such skills to another job is more difficut. The judgment of whether one applicant can and another cannot transfer such skills is, I believe, a highly speculative exercise. At least its reliability should be demonstrated before it becomes part of a decisionmaking process. There appears very little published information in this area. The assumption that age decreases skill transferability is, to my knowledge, unfounded.

I would not exclude the possibility, should the Committee be interested, to combine a "vocational factors" concept with five category impairment grading system. One would need to select from the "vocational factors" *system* the simpler and more reliably determinable portions. These could then be used in medical classifications 4 and perhaps 3 depending on costs to be incurred. Such costs should be predictable from operating data available *today*.

SUMMARY

The Commissioner's submittal is proposed as a refinement of existing regulations 404.1502. I do not believe that the document presented represents such refinement. Many of the factors are highly speculative. Such speculative factors are: (1) *remaining functional capacity ratings of people*, (2) the transferability of skills, (3) the descriptive age groups.

The reasoning that title XVI makes the proposal more urgent appears illogical. Why evolve a previous work concept for a title XVI population where such experience is largely missing? When such lack of experience is the result of disease, illness, or injury, the present program and its medical evaluation guides would provide replacement income.

The concept of impairment as a primary cause although used in present evaluation regulations is vague and results in wide variations of impairment severity with consequent decision variability.

DRAFT OF HEW REGULATIONS ON NONMEDICAL FACTORS

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Social Security Administration

[20 CFR Parts 404, 416]

[Regulations No. 4, 16]

FEDERAL OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE BENEFITS

SUPPLEMENTAL SECURITY INCOME FOR THE AGED, BLIND, AND DISABLED

Rules for Adjudicating Disability Claims in Which Vocational Factors Must be Considered

Notice is hereby given, pursuant to the Administrative Procedure Act (5 U.S.C. 553), that the proposed amendments to the regulations set forth in tentative form below are proposed by the Commissioner of Social Security, with the approval of the Secretary of Health, Education, and Welfare. The proposed amendments would expand existing regulations to include additional detailed criteria for the evaluation of those cases involving claims based on disability under title II and title XVI of the Social Security Act in which the determination as to disability cannot be made on medical severity alone. In such instances the individual's impairment will be considered in conjunction with his age, education, and work experience to determine his ability to engage in substantial gainful activity. These proposed amendments have no applicability in determining whether or not statutory blindness exists under title II or title XVI of the Social Security Act, or whether children under age 18 are disabled for purposes of title XVI or in determining disability of applicants for widows' or widowers' benefits under title II.

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The intent of the proposed amendments is to promote objectivity and consistency in making determinations of disability at all levels of adjudication with a view to achieving greater equality of treatment for claimants throughout the country in the implementation of the disability program in accordance with congressional intent. At the same time, full consideration will be given to the specific medical and vocational factors in each individual case.

Background

Congress first amended the Social Security Act in 1954 to preserve the insurance rights of individuals who have periods of total disability before reaching retirement age. The 1954 provision defined disability, in pertinent part, as:

> "inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or to be of long-continued and indefinite duration..."
> (Section 106(d), Act of September 1, 1954, C. 1206, 68 Stat. 1080).

The law, on its face, did not initially mandate consideration of any vocational factors. However, the Congress envisaged that the determination in every case be an individual one. Accordingly, since the inception of the social security disability program in 1954, in applying the statutory test, consideration has been given to the individual's vocational capacity, where pertinent, in determining whether he is disabled. However, because of the clearly limited statutory definition, those factors which relate primarily not to disability but to an individual's ability to obtain employment have been excluded from consideration.

The Social Security Administration's first effort in developing rules for disability determinations was in February 1955 when the Commissioner of Social Security appointed a Medical Advisory Committee to provide technical advice on administering guides and standards designed to provide equal consideration to all individuals in the evaluation of their disabilities under the 1954 law. This committee suggested that age, education, training, experience, and other individual factors would need consideration in any case requiring evaluation of facts beyond the medical report and work record even though the law did not specifically require consideration of such factors.

In 1956, the law was further amended to provide for payment of disability insurance benefits to insured individuals who were disabled; the above quoted statutory definition of disability was adopted for this purpose (Social Security Act as amended by § 103(a) of P.L. 84-880, approved August 1, 1956, (C836, 70 Stat. 815)). Regulations promulgated in 1957 to implement the statute also provided for the consideration of vocational factors. Section 404.1501 of Regulations No. 4 provided in pertinent part:

> "(b) In determining whether an individual's impairment makes him unable to engage in such activity [substantial gainful activity] primary consideration is given to the severity of his impairment. Consideration is also given to such other factors as the individual's education, training and work experience.
>
> "(c) It must be established by medical evidence, and where necessary by appropriate medical tests, that the applicant's impairment results in such a lack of ability to perform significant functions--such as moving about, handling objects, hearing or speaking, or, in a case of mental impairment, reasoning or understanding--that he cannot, with his training, education and work experience, engage in any kind of substantial gainful activity." (Underscoring added)

The initial years of operation of the disability program were reviewed by the Subcommittee on the Administration of the Social Security Laws of the Committee on Ways and Means. This Subcommittee's Preliminary Report, issued on March 11, 1960, stated, in commenting on "nonmedical standards" in the disability program, that:

> "The Subcommittee believes it is essential that there be a clear distinction between this program and one concerned with unemployment. It also believes it is desirable that disability determinations be carried out in as realistic a manner as possible, and that theoretical capacity in a severely impaired individual can be somewhat meaningless if it cannot be translated into an ability to compete in the open labor market."

In August 1960 the regulations were further amended. Among other things, the amended regulations continued to provide for the consideration of vocational factors including age, education, training, and work experience, in determining disability, and specifically stated:

> "The physical or mental impairments must be the primary reason for the individual's inability to engage in substantial gainful activity. Where for instance, an individual remains unemployed for a reason or reasons not due to his physical or mental impairment but because of the hiring practices of certain employers, technological changes in the industry in which he has worked, or local or cyclical conditions, such individual may not be considered under a disability..."

Reflecting concern about the disability insurance benefit program and the way the definition was being interpreted by the courts, the 1967 amendments to the law clarified the definition of disability. This legislation emphasized the role of medical standards in determining disability by stating that an individual is not to be considered under a disability unless his impairment is of such severity that he is not only unable to do his previous work but cannot (considering his age, education, and work experience) engage in any other kind of substantial gainful work which exists in the national economy.

Specifically, the statutory definition of disability in section 223 of the Act was amended by the 1967 amendments to read, in pertinent part, as follows:

> "(d)(1) the term 'disability' means--
>
> "(A) inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months; or
>
> "(B) [blindness].
>
> "(2) For purposes of paragraph (1)(A)--
>
> "(A) an individual (except a widow, surviving divorced wife, or widower for purposes of section 202(e) or (f)) shall be determined to be under a disability only if his physical or mental impairment or impairments are of such severity that he is not only unable to do his previous work but cannot, considering his age, education, and work experience, engage in any kind of substantial gainful work which exists in the national economy, regardless of whether such work exists in the immediate area in which he lives, or whether a specific job vacancy exists for him, or whether he would be hired if he applied for work. For purposes of the preceding sentence (with respect to any individual), 'work which exists in the national economy' means work which exists in significant numbers either in the region where such individual lives or in several regions of the country. (Emphasis added.)
>
> * * * * *
>
> "(3) For purposes of this subsection, a 'physical or mental impairment' is an impairment that results from anatomical, physiological, or psychological abnormalities which are demonstrable by medically acceptable clinical and laboratory diagnostic techniques.
>
> * * * * *

"(5) An individual shall not be considered to be under a disability unless he furnishes such medical and other evidence of the existence thereof as the Secretary may require." (Section 158(b), P.L. 90-248, January 2, 1968.)

The legislative history of this amendment indicates that the Congress clearly intended that medical factors be given predominant importance in making disability determinations. The House Report (H.R. Rep. No. 544, 90th Cong., 1st Sess. (1967)) states, at page 30:

"...In most cases the decision that an individual is disabled can be made solely on the basis that his impairment or impairments are of a level of severity (as determined by the Secretary) to be sufficient so that, in the absence of an actual demonstration of ability to engage in substantial gainful activity, it may be presumed that he is unable to so engage <u>because</u> of the impairment or impairments." (Emphasis in original.)

Further, for the first time, albeit in a limited fashion, Congress specifically alluded to vocational factors in the statutory language (§ 223(d)(2)(A)) to provide guidance as to their applicability. In discussing such factors which must be applied to individuals whose medical impairments are not of a sufficient level of severity so that the presumption of disability would apply, the House Report went on to state, on the same page:

"...that such an individual would be disabled only if it is shown that he has a severe medically determinable physical or mental impairment or impairments; that if, despite his impairment or impairments, an individual still can do his previous work, he is not under a disability; and that if, considering the severity of his impairment together with his age, education, and experience, he has the ability to engage in some other type of substantial gainful work that exists in the national economy even though he can no longer do his previous work, he also is not under a disability regardless of whether or not such work exists in the general area in which he lives or whether he would be hired to do such work. It is not intended, however,

that a type of job which exists only in very limited numbers or in relatively few geographic locations would be considered as existing in the national economy. While such factors as whether the work he could do exists in his local area, or whether there are job openings, or whether he would or would not actually be hired may be pertinent in relation to other forms of protection, they may not be used as a basis for finding an individual to be disabled under this definition. It is, and has been, the intent of the statute to provide a definition of disability which can be applied with uniformity and consistency throughout the nation, without regard to where a particular individual may reside, to local hiring practices or employer preferences or to the state of the local or national economy."

Except for the existing appendix to the regulations listing specific medical impairments which are presumptive of disability due to the severity involved, the existing regulations have provided general guidance in the determination of disability, and they have been supported by a wide array of specific administrative materials which have been utilized in the making of individual decisions. Such materials (provided primarily from surveys of industry by the Department of Labor, the Bureau of the Census and State employment services) include a variety of specific, published documentations of jobs existing in the local and national economy and specific physical, mental and skill requirements of such jobs (e.g., the County Business Patterns, published by the Bureau of the Census, which show distribution of employment in the United States by locality and by industry; the Census Reports, published by the Bureau of the Census, which give detailed characteristics of the working population on a national, regional, and local level; occupational analyses of light and sedentary jobs prepared for the Social Security Administration by various State employment agencies; the Occupational Outlook Handbook, published

by the Bureau of Labor Statistics, which shows the nature of work, the training and other qualifications needed and working conditions and employment outlook for certain occupations; and the third edition of the Dictionary of Occupational Titles, published by the Department of Labor, which provides job definitions, requirements, worker traits, industry designations and indicators of skills). Thus, the relationship between the physical abilities of specific individuals and the physical, mental, and skill requirements of specific jobs available in the national economy has been administratively determinable. The administrative notice which is taken of the mentioned reference materials is based on the fact that they are generally recognized in business, industry, and government as representing authoritative sources on jobs throughout the national economy.

Consistent with the definition of disability prescribed by the law and regulations issued thereunder, and the relationship between the physical abilities of specific individuals and the physical, mental, and skill requirements of specific jobs available in the national economy, detailed guidance in the form of administrative issuances for determining whether disability exists have been developed by the Social Security Administration and are being applied in the adjudication of individual cases. Thousands of such cases are adjudicated each year under these evaluation rules. These rules are now proposed for incorporation into the regulations. Their publication in this form will facilitate the determination of disability in those cases where the vocational impact of age, education, and work

experience must be assessed in conjunction with the severity of an individual's medical impairment(s), better assure consistency of determinations, and better serve to advise the public, adjudicatory personnel within the Social Security Administration, and the courts, of the specific rules followed by the Social Security Administration.

This need for publication of additional, more definitive medical-vocational rules has been further heightened by the advent of the recent title XVI (Supplemental Security Income) legislation which introduced into general adjudicative consideration for the first time a factor not normally present in the title II disability program--the vocational impact upon adult individuals who have no relevant work experience at all.

Under title II, the "insured status" requirement, which applies to most disability claimants, requires that the claimant have a significant and recent work history covered under the title II program. Under title XVI, the same test of disability is used as under title II, but the collateral requirements are directed to financial need rather than participation in a work-related contributory system. Therefore, needy disabled individuals may qualify under title XVI even if they have no work history.

Proposed Amendments Expanding the Regulations

General

For consistency with the statutory definition of disability, the proposed regulations contain a technical clarification of the language

in § 404.1502(a) of Regulations No. 4 and § 416.902(a) of Regulations No. 16 to reflect that an impairment that is "not severe" would support a finding that an individual is not disabled. Also, the appendix referred to in § 404.1502(a) and § 416.902(a) is redesignated Appendix 1.

Additionally, the proposed regulations change the text of § 404.1502(b) and § 416.902(b) to specifically define the adjudicative weight to be given to impairment severity, age, education, and work experience. They emphasize that the adjudicative judgment is to be based on objective evidence. They also add a new Appendix 2 which provides specific rules for the adjudication of specific fact situations where vocational factors apply. The rules in Appendix 2 reflect how the interaction of these variables in a medical-vocational profile (depending upon the profile and in light of data that are available on jobs that exist in the national economy) permits or precludes the performance of substantial gainful activity and, thus, is determinative of whether or not an individual is under a disability. Severe impairments which are not listed in Appendix 1 and are not the medical equivalent of listed impairments may be found disabling if objective evidence, assessed under the proposed criteria in Appendix 2, shows that such impairments prevent the claimant from engaging in substantial gainful activity.

The proposed criteria are considered in appropriate sequence in the context of the overall disability sequential evaluation process. This sequence, conforming to existing social security regulations, and left substantially unchanged by the proposed amendments, is applied in the following manner.

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1. Determinations based on an individual engaging in substantial gainful activity.

Where an individual is actually engaging in substantial gainful activity, a finding will be made that such an individual is not under a disability without consideration of either medical or vocational factors (§ 404.1532 and § 416.932).

2. Determinations based solely on the medical severity of impairment § 404.1502(a) and § 416.902(a).

a. Medical considerations alone can justify a finding that the individual is not under a disability where the medically determinable physical or mental impairment(s) is not severe, e.g., does not significantly limit the individual's physical or mental capacity to perform basic work-related functions.

b. On the other hand, medical considerations alone would (except where other evidence rebuts a finding of disability, e.g., the individual is actually engaging in substantial gainful activity) justify a finding of disability where the impairment meets the duration requirement (i.e., is expected to last at least 12 months or result in death) and meets or equals the severity of a listed impairment published in the Appendix (proposed to be redesignated "Appendix 1") of the disability regulations.

3. Determinations based on vocational as well as medical considerations.

a. Where an individual with a marginal education and long work experience (e.g., 35 to 40 years or more) limited to the performance

of arduous unskilled physical labor, is not working and is no longer able to perform such labor because of a significant impairment or impairments, such an individual may be found to be under a disability (§ 404.1502(c) and 416.902(c)).

b. Where a finding of disability (or its absence) is not made under any of the foregoing steps, the individual's impairment(s) is evaluated in terms of physical and mental demands of his past relevant work. If the impairment(s) does not prevent the performance of past relevant work, disability will be found not to exist.

c. If an individual cannot perform his past relevant work but his physical and mental capacities are consistent with his meeting the demands of a significant number of jobs in the national economy and he has the vocational capabilities (considering his age, education, and past work experience) to make an adjustment to work different from that which he has performed in the past, it will be determined that such an individual is not under a disability. However, if such an individual's physical and mental capacities in conjunction with his vocational capabilities (considering his age, education, and work experience) are not consistent with making an adjustment to work differing from that which he has performed in the past, it will be determined that such an individual is under a disability.

The proposed amendments to §§ 404.1502(b) and 416.902(b) and the addition of Appendix 2 primarily concern the last two steps of the process (3b and c above) and principally the last step (3c above).

They provide a logical sequence for evaluating disability within the last step, the step where it is necessary to evaluate the severity of the claimant's impairment(s) in conjunction with his vocational profile (i.e., his age, education, and work experience). These rules apply only after a determination has been made that the severity of the impairment(s) does not meet or equal the listing of impairments in Appendix 1, and the provisions of § 404.1502(c) or § 404.902(c) do not apply. Moreover, the rules apply only after the impairments have been translated into the individual's physical and mental ability to perform functions necessary for the performance of work. In the determination of the individual's impairments and ability to function, all medical evidence is evaluated. The claimant has the burden of proving his case by furnishing evidence of disability, but all evidence adduced in the case from any source is fully considered. If, however, the evidence does not raise a question regarding a particular impairment or function, such as seeing or hearing, the individual is considered to be able in that respect to perform work activities.

The proposed amendments focus on the vocational factors of age, education, and work experience. They are premised on the necessity to adjudicate each case individually to determine exactly what work a specific claimant is able to do. This includes a specific consideration of the claimant's individual vocational profile. In making determinations of disability, administrative notice is taken of authorita-

tive publications and studies which identify the kinds and numbers of jobs that exist in the national economy and their skill and exertional requirements.

Most sources not connected with the Social Security Administration, which deal with the vocational implications of limitations resulting from impairments, age, education, and work experience do so from the standpoint of job placement rather than the social security concept of disability, which is concerned with the physical and mental ability to engage in jobs that exist. Such sources entail consideration of elements such as employer hiring practices which are precluded from consideration in social security disability adjudication. Thus, most of their findings are not directly applicable. Such data do, however, provide an overview of the realities of the labor market and some specific reference points that can be utilized. The extensive experience of the Social Security Administration is also used as a basis for consideration of vocational factors.

Recognizing the primary importance of the individual's impairment(s) and any limitations resulting therefrom, the proposed amendments require first that sound professional judgments be made as to an individual's maximum sustained work capability as a result of his impairment(s)--the individual's residual functional capacity. Then, a reliable basis is needed to relate the individual's residual functional capacity to what he could be expected to do in terms of work at various exertional levels. The individual has the burden of proving that he is disabled and where no issue is raised by his allegations or the evidence adduced as to specific physical or mental capacities,

findings as to such capacities are not required.

In order to consider the individual's residual functional capacity in terms of the work his exertional capabilities would represent, the designations of sedentary, light, medium, heavy and very heavy work are used as such terms are defined in the third edition of the Dictionary of Occupational Titles published by the Department of Labor. This provides a "bridge" between assessment of residual functional capacity and the identification of ranges of work and types of jobs that remain within the individual's functional capabilities. The rules attach vocational significance to the functional capability for various ranges of work in terms of the relative numbers of jobs represented by the various capabilities.

The functional ability to perform heavy work, which includes the functional capability for work at all of the lesser functional levels as well, indicates the functional capability for almost all work that is listed in the third edition of the Dictionary of Occupational Titles. The functional ability to perform very heavy work includes the functional capability for all work that is listed in the third edition of the Dictionary of Occupational Titles.

The functional capacity to perform medium work includes the functional capacity to perform sedentary, light, and medium work and indicates a substantial work capability. Approximately 2,500 separate unskilled sedentary, light and medium occupations are identified in the Selected Characteristics of Occupations, a supplement to the third edition of the Dictionary of Occupational Titles. Each occupation represents numerous jobs found throughout the national economy.

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The functional ability to perform a full or wide range of light work represents substantial work capability in diverse jobs and industries at all skill levels. Approximately 1,600 separate unskilled light and sedentary occupations can be identified in the Supplement to the Dictionary of Occupational Titles (third edition), each occupation representing numerous jobs found throughout the national economy.

Most sedentary occupations are skilled or semi-skilled, and fall within the professional, administrative, technical, clerical, machine trade, and benchwork classifications. There are also approximately 200 separate unskilled sedentary occupations which can be identified in the Supplement to the Dictionary of Occupational Titles (third edition), each occupation representing numerous jobs found throughout the national economy. While sedentary work represents a significantly restricted range of work, this range itself is not so restricted as to negate work capability for substantial gainful activity. As with the other factors, the functional level of work which an individual can perform is not, in itself, determinative of disability but must be considered in conjunction with the individual's age, education, and work experience.

The proposed Appendix 2 considers the functional level of work which an individual can perform in relation to the individual's age, education, and work experience. Various combinations of these functions are arranged to indicate whether the individual is disabled.

If it is found that an individual does not have the physical-mental capacity to perform work even at a sedentary level - the level requiring the least exertion - disability will be determined to exist,

absent specific evidence to the contrary (e.g., the individual is working in substantial gainful activity). (In such a situation, the individual should ordinarily have been determined to be disabled based solely on consideration of the medical severity of impairment under Step 2b in the sequential process described above.) If, on the other hand, it is found that the individual does have the physical-mental capacity to perform work at some exertional level (i.e., between sedentary and heavy), consideration then must be given, as provided in the law, to whether "jobs exist in the national economy" that are within his capability, considering his residual functional capacity in the light of his age, education, and work experience.

As previously set out, the law provides that "jobs exist in the national economy" when they exist in significant numbers either in the region where an individual lives or in several regions of the country. Further, in defining what constitutes disability, under sections 223(d) and 1614(a)(3) of the Social Security Act the Congressional intent is that where an individual's physical or mental impairment(s) and his age, education, and past work experience are compatible with the performance of substantial gainful activity, he cannot be considered under a disability because he is unsuccessful in obtaining work he can do; or because work he could do does not exist in his local area; or because of the hiring practices of employers, technological changes in the industry in which he has worked, or cyclical economic conditions; or because there are no job openings for him or he would not actually be hired to do work he could otherwise perform. On the other hand, an

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individual may be determined to be under a disability if his physical or mental impairments are of such severity that he is not only unable to do his previous work but cannot, considering his age, education, and work experience, engage in any other kind of substantial gainful work which exists in the national economy.

In view of the provisions of the law and data which show that significant numbers of unskilled jobs do exist in the "national economy" at each of the levels of required exertion from sedentary through heavy and very heavy, an individual would not meet the requirements for disability if he has the residual functional capacity to do work at any of these levels and his vocational capabilities, considering his age, education, and work experience, are not so adverse as to preclude his ability to engage in such work. Thus, for example, an individual who retains the physical ability to do a wide range of light work, who is not of advanced age, and is able to communicate, read, and write on an elementary level, would generally be considered to still be in the competitive labor market for light, unskilled work, despite the absence of special experience or skills.

Within the context of the preceding discussion concerning the overall impact of vocational considerations in assessing disability, the expanded regulations also provide specific rules for assessing each of the vocational factors of age, education, and work experience. The bases for these rules are discussed below:

Age

Reference sources and materials dealing with chronological age in terms of vocational relationship deal principally with employment and

rehabilitation activities, basing their conclusions mainly on the rate of participation in the labor force, the unemployment rate, duration of unemployment, and the proportion of hires to applicants. It appears from such materials that the "older worker" is usually considered as an individual 45 years of age and older. See, e.g., "Services to Older Workers" by the Public Employment Service (May 1957), page 9; Training and Employment of the Older Worker, Recent Findings and Recommendations Based on Older Worker Experimental and Demonstration Projects by Sarah F. Leiter (February 1968), page 1 and 2; The Productive Years Age 45-65 (undated) published by the National Association of Manufacturers; Meeting the Manpower Challenge of the Sixties with 40-plus Workers, a November 1960 Department of Labor publication, page 12.

It is further noted in publications that age 55 represents a critical point in the attempts of "older workers" to obtain employment. See, e.g., A Survey of the Employment of Older Workers (1965) by the State of California, Department of Employment and Citizens' Advisory Committee on Aging, page 96; The Vocational Adjustment of the Older Disabled Worker, A Selective Review of the Recent Literature, by Herbert Rusalen, Ed. D (a study for the Vocational Rehabilitation Administration), pages 9, 10, and 12; Services to Older Workers by the Public Employment Service (May 1957).

In viewing the overall implications of the data in the sources cited, it must be recognized that there is a direct relationship between age and the likelihood of employment. However, the statutory definition of disability provides specifically that vocational factors

must be viewed in terms of their effect on the ability to perform jobs rather than the ability to obtain jobs--in essence, how the progressive deteriorative changes which occur as individuals get older affect their vocational capacities to perform jobs. Since no data or sources are available which relate varying specific chronological ages to specific vocational limitations for performing jobs, it is necessary to analyze and interpret the available age--employment data to ascertain a point where it would be realistic to ascribe vocational limitations based on chronological age.

Prior experience of the Social Security Administration in determining when age makes a difference in disability determinations has also been considered, e.g., as shown in the Social Security Disability Applicant Statistics/1970 published by the U.S. Department of Health, Education, and Welfare, Social Security Administration, Office of Research and Statistics, September 1974, as well as the Veterans Administration Schedule for rating disabilities (38 CFR 4.17).

In this respect, while the data reflect employment problems as developing at age 45, they recognize that this problem becomes significantly intensified at age 55. It is at this point, age 55, where it can reasonably be anticipated, therefore, that the deteriorative changes which occur in older persons which affect vocational capacities would most likely occur. Further, the vocational adversity of age 55 was recognized in Report of the 1971 Advisory Council on Social Security published by the U.S. Government Printing Office, April 5, 1971; and age 55 has already gained Congressional recognition in legislation establishing special provisions for disability because of blindness (see 42 U.S.C. 423(d)(1)(B)).

Thus, from the standpoint of chronological age, the proposed amendments reflect age 55 and over (i.e., advanced age) as representing an adverse consideration in determining an individual's vocational adaptability to work differing from that of his past experience. Further, these amendments take cognizance of the fact that the vocational impact of age does not abruptly change from a favorable to an adverse vocational consideration precisely at the point of attaining age 55. Therefore, the proposed amendments provide for consideration of a lesser, but nevertheless significant, degree of vocational adversity as advanced age is approached.

Education

Formal education is given adjudicative weight to the extent that it relates to an individual's ability to meet reasoning abilities, language, and arithmetical requirements of jobs. Reasoning ability would affect the individual's ability to follow instructions and make judgments in a work situation. Language competence relates to ability to read, write, and speak. The inability to meet the language requirements at an elementary level would restrict even the number of unskilled jobs a person would be able to do. Similarly, the inability to perform simple calculations in addition and subtraction would represent vocational restrictions in performing some unskilled jobs. On the other hand, the Dictionary of Occupational Titles, third edition, and particularly the supplement thereto, Selected Characteristics of Occupations published by the Department of Labor, reflects that individuals with basic competences in speaking, reading, writing, and making simple calculations do have the educational capabilities for performing

unskilled work. The Occupational Outlook Handbook, published by the Bureau of Labor Statistics (page 778, 1970-1971 edition), also reflects that people who have less than a high school education and no previous experience often can qualify for unskilled jobs. Other materials indicate similar correlations and reflect that employability tends to increase with education. See, e.g., in the Occupational Outlook Handbook, published by the Bureau of Labor Statistics (1974-1975 edition), the section within each occupational listing entitled "Training, Other Qualifications, and Advancement," e.g., see page 764; The Long Term Unemployed, Educational Attainment (October 1964) published by the Manpower Administration of the Department of Labor in cooperation with the Oklahoma Employment Security Commissioner (pages vi, and 18); Monthly Labor Review of January 1974, an article entitled "Educational Attainment of Workers, March 1973" (pages 58-61); Automation Manpower Services Program Report by the New Jersey State Employment Service entitled "The 'Mack' Worker, The Impact of His Job Loss 2 1/2 Years Later, (December 1965) (pages 14 and 15); A Survey of the Employment of Older Workers, (1965) by the State of California Department of Employment and Citizens' Advisory Committee on Aging; The Impact of Technological Change in the Meatpacking Industry, published by the Division of Employment, Department of Labor in March 1966 (page 16). Illiteracy as an adverse factor has also been discussed in certain sources (e.g., Rehabilitation of the Aging prepared by Portland State College under auspices of Vocational Rehabilitation; Monthly Labor Review, September 1972, an article titled "How Employers Screen Disadvantaged Job Applicants").

An education of high school level or above may serve as a partial substitute for loss of physical capacity, i.e., better educated individuals are more likely to obtain sedentary and professional jobs. Thus, they are not as likely to apply for benefits or to be classified as disabled. In support of this, the data do not show the better educated to be heavily represented among the disabled; see, e.g., Social Security Disability Applicant Statistics/1970, DHEW Pub. No. (SSA) 75-11911, pages 45, 46, 47, tables 18, 19, and 20.

In viewing the overall implications of the data in the sources cited, it must be recognized that there is a direct relationship between the level of education attained and the likelihood of employment. These sources indicate that young people who have less than a high school education and no previous work experience often can only qualify for employment in unskilled jobs such as kitchen workers, dishwashers, or construction laborers. Also, it is noted that individuals with the least schooling tend to have the most unemployment. In the blue collar classification, skilled workers tend to have a higher educational attainment than semi-skilled workers. In the white collar classification, most employees are high school graduates. Additionally, upon becoming unemployed or laid off, individuals with at least a high school education have better success in finding new employment. As a corollary, the chronically unemployed tend to be functional illiterates since most employers require that prospective employees at least be able to read and write. This is true even in the case of some unskilled work.

Thus, it can be seen that employability tends to increase and unemployment tends to decrease as the level of education increases. Increasing adaptability to changing working conditions and acquisition of more readily transferable skills occurs with increased education. Further, when jobs require a specified minimal educational background, the lack of an adequate education, especially if illiteracy exists, serves to exclude such individuals from consideration for such jobs even though they might otherwise be able to perform satisfactorily.

Work Experience

An individual's past work experience is considered as demonstrating most persuasively the kinds of work and skill level at which an individual is qualified to perform. In the proposed regulations, previous experience, particularly if it resulted in work skills that are transferable to other jobs, is treated as a substantial vocational asset in accordance with sources which reflect that workers with skills tend to have fewer and shorter periods of unemployment, and that skilled workers are often in demand, even at age levels when some workers without acquired skills are experiencing difficulty in the labor market. Some of these sources are: Counseling and Placement Services for Older Workers (September 1956) published by the Department of Labor, Page 4, Section C.2.c; page 12, #14; page 15, #8, page 77, Section H.1; A Survey of the Employment of Older Workers 1964, published by the State of California, Department of Employment and Citizens' Committee on Aging, Page 9, Section B.1; Page 10, under the heading "Experience"; Page 49, Section A.; Page 70, Section 2.a.; and Services to Older Workers by the Public Employment Service (May 1957), published by the U.S. Department of Labor; Page 7, Section C. However, to be under a

disability an individual must not only be unable to do his customary work but also must be unable to do any other kind of work that exists in significant numbers in the national economy. Although past work experience provides an individual with familiarity with certain work environments, as previously noted the third edition of the Dictionary of Occupational Titles and other sources identify many unskilled jobs in the national economy at all levels of exertion which do not require skills or previous work experience, and even individuals without past work experience may vocationally qualify for such jobs. Notwithstanding this fact, the expanded regulations do recognize that where the applicant has had no prior work experience (a significant number of applicants for Supplemental Security Income benefits fall in this category) this is an adverse vocational factor which must be taken into consideration, particularly for individuals of advanced age.

Summation

In essence, the proposed regulations and Appendix 2 identify and define the individual medical-vocational factors which Congress intended to be considered in appropriate cases and illustrate the relative weights to be ascribed to each factor in conjunction with all of the other variables in determining an individual's ability or inability to perform substantial gainful activity. Proposed Appendix 2 sets forth these interactions in the form of individual profiles demonstrating the changing adjudicative weights to be accorded each factor in relation to the others. The required determination reflects whether or not an individual with a given profile is able to engage in substantial gainful

activity. The determination is predicated on the basis of a medical-vocational determination of capacity for the performance of ranges of work, rather than singular or isolated occupations and, therefore, inherently considers the performance of a significant number of jobs that exist in the national economy. Thus, when all factors are compatible with a rule, there is no need to pursue further the issue of existence of jobs, such as by eliciting live vocational testimony. Further, the rules should lessen the need for such vocational testimony in other cases where the factors in the individual's case come close to meeting the characteristics in the rules.

The publication of Appendix 2 is not intended to direct the adjudication of social security disability claims on the basis of an "average man" concept. Rather, the rules make the process of determining the ability to engage in substantial gainful work more uniform and definitive while preserving the individuality of the determination. While the standards for evaluation included in Appendix 2 are rules whereby each case is evaluated, they do not derogate from the requirement that the determination in every case is an individual one. Thus, the rules require that each individual's age, education, work experience, and physical and mental limitations personal to him, be taken thorough account of before the rules are applied to the facts in his case. The rules need to be definitive so that the claims of all individuals similarly situated are handled in a consistent manner and to assure that determinations made by one set of adjudicators on the basis of the same facts will be handled the same way by another group of

adjudicators, wherever in the country they are located. The necessity for each determination to be an individual one does not eliminate the need for consistency and uniformity in determinations. The way that is achieved administratively is by the regulations and the Appendices (1 and 2)..

With respect to those claims not covered within the specific parameters of a rule in Appendix 1 or 2, a determination will have to be made on the basis of the rules in the main body of the regulations, taking appropriate account of the rules in Appendix 2.

The rules stated herein are a codification of adjudicatory guides contained in administrative issuances and used by the Social Security Administration over many years. The regulations and Appendix 2 constitute a restatement of prior rules and take appropriate account of the Social Security Administration's extensive experience to date in administering a disability program. Appendix 2 will help insure individual consideration of all appropriate factors in each case, while providing meaningful rules for soundness, consistency and equity of disability adjudications.

Prior to the final adoption of the proposed amendments to the regulations, consideration will be given to any data, views, or arguments pertaining thereto which are submitted in writing in triplicate to the Commissioner of Social Security, Department of Health, Education, and Welfare, P.O. Box 1585, Baltimore, Maryland 21203, within a period of 60 days from the date of publication of this notice in the Federal Register.

Copies of all comments received in response to this notice will be available for public inspection during regular business hours at the Washington Inquiries Section, Office of Information, Social Security Administration, Department of Health, Education, and Welfare, North Building, Room 4146, 330 Independence Avenue, SW., Washington, D.C. 20201.

The proposed amendments are to be issued under the authority contained in sections 205, 223, 1102, 1614, and 1631, of the Social Security Act, as amended; 53 Stat. 1368, as amended; 70 Stat. 815, as amended; 49 Stat. 647, as amended, 86 Stat. 1471, 86 Stat. 1475; 42 U.S.C. 405, 423, 1302, 1382c, 1383.

(Catalog of Federal Domestic Assistance Program No. 13.802, Disability Insurance; Catalog of Federal Domestic Assistance Program No. 13.807, Supplemental Security Income Program.)

Dated: APR 5 1976

/S/ J. B. CARDWELL

Commissioner of Social Security

Approved:

Secretary of Health, Education, and Welfare

Part 404 and Part 416 of Chapter III of Title 20 of the Code of Federal Regulations are amended as follows:

1. Section 404.1502 is amended by deleting paragraphs (d) and (e) and by revising paragraphs (a) and (b) to read as follows:

§ 404.1502 Evaluation of disability except for purposes of statutory blindness or widow's or widower's benefits.

(a) In determining whether or not an impairment in a particular case involving disability insurance benefits under section 223 of the Act (except for purposes of statutory blindness), or child's insurance benefits based on disability under section 202(d) of the Act or a period of disability under section 216(i)(1)(A) of the Act, constitutes a disability, as defined in § 404.1501, primary consideration is given to the severity of the individual's physical or mental impairment(s). Medical considerations alone can justify a finding that the individual is not under a disability where the medically determinable impairment is not severe, e.g., does not significantly limit the individual's physical or mental capacity to perform basic work-related functions.

On the other hand, medical considerations alone (including the physiological and pyschological manifestations of aging) can, except where other evidence rebuts a finding of "disabled," e.g., the individual is actually engaging in substantial gainful activity, justify a finding that the individual is under a disability where his impairment is one that meets the duration requirement in § 404.1501 and is listed in Appendix 1 of this Subpart, or the Secretary determines his impairment (or combined impairments) to be medically the equivalent of a

listed impairment (see § 404.1505). When a determination cannot be made on the basis of medical considerations alone and the individual is not actually engaged in substantial gainful activity, consideration is then given to such other factors as the individual's age, education, and work experience.

(b)(1) Conditions which constitute neither a listed impairment nor the medical equivalent thereof likewise may be found disabling if they constitute a severe impairment and objective evidence shows that they do, in fact, prevent the individual from engaging in any substantial gainful activity. In determining such inability to engage in substantial gainful activity, the age, education, and work experience of the individual must be considered in addition to the functional limitations imposed by the individual's physical or mental impairments. However, the physical or mental impairment or impairments must be the primary reason for the inability to engage in substantial gainful activity.

(2) The kind and severity of impairment determine the individual's work limitations and residual functional capacity. The manner in which the impairment or impairments affect the individual's ability to perform work-related physical and mental activities, and the kind and extent of function he retains, are assessed in determining the individual's residual functional capacity. When multiple impairments are involved, the assessment of residual functional capacity reflects the totality of restrictions resulting from all impairments. This assessment is based on all relevant evidence pertaining to residual functional capacity which is consistent with appropriate clinical and

laboratory findings. Assessment of physical capacities (e.g., strength and exertional capabilities) includes an evaluation of the individual and indicates his maximal residual functional capacity for sustained activity on a regular basis in terms of ability to do sedentary, light, medium, heavy, or very heavy work as defined in paragraph (b)(9) of this section. Such assessment takes account of ability to perform significant physical functions such as walking, standing, lifting, carrying, pushing, or pulling, and such other physical traits as reaching, handling, seeing, hearing, and speaking insofar as limited capacity to perform these activities may affect the individual's capacity for work for which he would otherwise be qualified. The assessment of mental capacity includes consideration of such factors as the capacity to understand, carry out and remember instructions, to use acceptable judgment, to respond appropriately to supervision, co-workers, and customary work pressures, to behave without constant supervision in a routine work setting, and to deal with problems involving variables in standardized work situations. Where no issue with respect to specific physical or mental capacities is raised by the allegations of the individual or the evidence adduced, findings respecting such capacities are not to be made. The individual has the burden of proving that he is disabled and of raising any issue with respect thereto.

(3) Where the residual functional capacity so determined is sufficient to enable the individual to do his previous work (i.e., usual work or other past work), a determination will be made that the individual is not under a disability. Where the residual functional

capacity so determined is not sufficient to enable the individual to do his previous work, assessment is made of work he can do, taking into consideration his residual functional capacity, age, education, and work experience and whether work that he can do exists in the national economy.

(4) A finding that work exists in the national economy is made when there is a significant number of jobs (in one or more occupations) having typical requirements which do not exceed the individual's physical or mental capacities and vocational qualifications. Work is considered to exist in the national economy when it exists in significant numbers either in the region where such individual lives or in several other regions of the country, regardless of whether such work exists in the immediate area in which he lives, or whether a specific job vacancy exists for him, or whether he would be hired if he applied for work. Isolated jobs of a type that exist only in very limited number or in relatively few geographic locations outside of the region where the individual resides are not considered to be "work which exists in the national economy" for purposes of determining whether an individual is under a disability; an individual is not denied benefits on the basis of the existence of such jobs. If such work that the individual can do does not exist in the national economy, disability shall be determined to exist. If such work does exist in the national economy, disability shall be determined not to exist.

(5) If an individual's residual functional capacity and vocational capabilities are consistent with the performance of work which exists in the national economy but he remains unemployed because he

is unsuccessful in obtaining such work or because such work does not exist in his local area; or because of the hiring practices of employers, technological changes in the industry in which he has worked, or cyclical economic conditions; or because there are no job openings for him or he would not actually be hired to do work he could otherwise perform, the individual is considered not to be under a disability as defined in § 404.1501.

(6) The term "age" refers to chronological age and the extent to which it affects the individual's capability to engage in work in competition with others. In the case of a younger individual, age in itself is not considered to affect significantly the individual's ability to adapt to a new work situation. Where a severely impaired individual is of advanced age (age 55 or over), such ability may be adversely affected except where the individual has skills that are readily transferable. "Advanced" age represents the point where age substantially affects capability to engage in substantial work. For the individual not of advanced age but who is closely approaching advanced age, the factor of age, in combination with a severe impairment and limited vocational background, may substantially affect his adaptability to a significant number of jobs in a competitive work environment. However, the factor of age in itself is not determinative of disability; the residual functional capacity and the education and work experience of the individual must also be considered. An individual who is unemployed because of age cannot be found incapable of engaging in substantial gainful activity when his impairment and other vocational considerations, e.g., education and work experience,

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would enable him to perform a significant number of jobs which exist in the national economy.

(7) The term "education" is used in the sense of formal schooling or other training, the acquisition of which contributes to the individual's ability to meet vocational requirements, e.g., reasoning ability, communication skills, and arithmetical ability. In reference to meeting the educational requirements of jobs, the inability to communicate in English generally represents a vocational handicap in that it may preclude an individual from performing even those unskilled jobs which require conversing with peers and supervisors, as well as reading instructions, signs, forms, etc. However, the inability to communicate in English would not be considered a vocational handicap to work adjustment where analysis of the employment market in the region in which the individual lives produces evidence that would support a contrary finding. Where there is evidence of the existence of a substantial number of jobs in the region in which the claimant lives that can be performed by persons with his particular linguistic abilities, the inability to communicate in English may not be considered to be a determinative factor in a finding of disability. For example, for residents of Puerto Rico proficiency in Spanish, the principal language, insures against any significant work limitations due to an inability to communicate in English. Lack of formal schooling is not necessarily proof that the individual is uneducated or lacks such capacities. For individuals with past work experience, the kinds of responsibilities assumed when working may indicate the existence

of such intellectual capacities although their formal education is limited. Other evidence of such capacities, for individuals with or without past work experience, may consist of daily activities, hobbies, or the results of intelligence testing. The significance of an individual's educational background may be materially affected by the time lapse between the completion of his formal education and the onset of physical or mental impairment(s) and by what the individual has done with his education in a work context. Formal education that was completed many years prior to onset of impairment or unused skills and knowledge that were a part of such formal education may no longer be useful or meaningful in terms of the claimant's ability to work. In evaluating the educational level of an individual, the following classifications are used:

(i) Illiteracy. Illiteracy refers to the inability to read or write. An individual who is able to sign his name, but cannot read or write a simple communication (e.g., instructions, inventory lists), is considered illiterate. Generally, an illiterate individual has had little or no formal schooling.

(ii) Marginal education. Marginal education refers to competence in reasoning, arithmetic, and language skills which are required for the performance of simple, unskilled types of jobs. In the absence of evidence to the contrary, formal schooling at a grade level of sixth grade or less is considered a marginal education.

(iii) Limited education. Limited education refers to those educational competences in reasoning, arithmetic, and language skills which,

although more than that which is generally required to carry out the duties of unskilled work, do not provide the individual with the educational qualifications necessary to perform the majority of more complex job duties involved in semi-skilled or skilled jobs. In the absence of evidence to the contrary, a seventh grade through the eleventh grade of formal education is considered a limited education.

(iv) High school and college education. High school education and above refers to competence in reasoning, arithmetic, and language skills acquired through formal schooling at a level of grade twelve or above. In the absence of evidence to the contrary, these educational capacities would qualify an individual for work at a semi-skilled through a skilled level of job complexity.

(8) The term "work experience" means skills and abilities acquired through work previously performed by the individual which indicates the type of work he may be expected to perform. Work for which the individual has demonstrated a capability is the best indicator of the kind of work that the individual can be expected to do. Such work experience has current vocational relevance where the recency of the work or the skills acquired demonstrate the individual's ability to perform work which exists in the national economy. Work performed 15 years or more prior to the beginning of the purported disability is ordinarily not considered vocationally relevant. An individual who has no prior work experience or has worked only sporadically or for brief periods of time during the 15 years prior to the beginning of the purported disability may be considered to have no relevant work

experience. Skills and abilities acquired through work experience are vocational assets unless they are not transferable to work within the individual's current capacities. However, an individual need not have work experience to qualify for unskilled work which requires little or no judgment in the performance of simple duties which can be learned in a short period of time.

(9) For the purpose of determining exertional requirements of work in the national economy, jobs are classified as "sedentary," "light," "medium," "heavy," and "very heavy." Such terms have the same meaning as they have in the Dictionary of Occupational Titles published by the Department of Labor, and when used in making disability determinations under this subpart, are defined as follows:

(i) Sedentary work. Sedentary work entails lifting 10 pounds maximum and occasionally lifting or carrying such articles as dockets (e.g., files), ledgers, and small tools. Although a sedentary job is defined as one which involves sitting, a certain amount of walking and standing is often necessary in carrying out job duties. Jobs are sedentary if walking and standing are required occasionally and other sedentary criteria are met.

(ii) Light work. Light work entails lifting 20 pounds maximum with frequent lifting or carrying of objects weighing up to 10 pounds. Even though the weight lifted may be only a negligible amount, a job is in this category when it requires walking or standing to a significant degree, or when it involves sitting most of the time with a degree of pushing and pulling of arm or leg controls. To be considered capable of performing a full or wide range of light work,

an individual must be capable of performing substantially all of the foregoing activities. The functional capacity to perform light work includes the functional capacity to perform sedentary work.

(iii) Medium work. Medium work entails lifting 50 pounds maximum with frequent lifting or carrying of objects weighing up to 25 pounds. The functional capacity to perform medium work includes the functional capacity to perform sedentary work and light work as well.

(iv) Heavy work. Heavy work entails lifting 100 pounds maximum with frequent lifting or carrying of objects weighing up to 50 pounds. The functional capacity to perform heavy work includes the functional capacity to perform work at all of the lesser functional levels.

(v) Very heavy work. Very heavy work entials lifting objects in excess of 100 pounds with frequent lifting or carrying of objects weighing 50 pounds or more. The functional capacity to perform very heavy work includes the functicnal capacity to perform work at all of the lesser functional levels.

(10) For purposes of assessing the skills reflected by an individual's work experience, and in determining the existence in the national economy of work the individual is competent to do, occupations are classified as unskilled, semi-skilled, and skilled. When used in making disability determinations under this subpart, these terms are used in the following sense:

(i) Unskilled work. Unskilled work denotes work which requires little or no judgment in the performance of simple duties that can be learned on the job in a short period of time. Considerable strength

may or may not be required. Where the primary work function of occupations consists of handling, feeding and offbearing (i.e., placing or removing materials from machines which are automatic or operated by others), or machine tending, an average successful job performance can ordinarily be achieved within 30 days and, therefore, such occupations are considered unskilled. Other types of jobs requiring little specific vocational preparation and little judgment are likewise unskilled.

(ii) Semi-skilled work. Semi-skilled work denotes work in which some skills are involved but the more complex work functions are not required. Semi-skilled jobs may require alertness and close attention to watching machine processes; or inspecting, testing or otherwise detecting irregularities; or tending or guarding equipment, property, materials, or persons against loss, damage or injury; or other types of activities involving less complex work functions. A job may be classified as semi-skilled where coordination and dexterity are necessary as in the use of the hands or feet for the rapid performance of repetitive tasks.

(iii) Skilled work. Skilled work requires qualifications in which the independent judgment of the individual determines the machine and manual operations to be performed in obtaining the proper form, quality, or quantity of material to be produced. The individual may be required to lay out work, to estimate quality, suitability and needed quantities of materials, to make precise measurements, to

read blueprints or other specifications, and to make necessary computations or mechanical adjustments to control or regulate processes. Other skilled jobs may require dealing with personnel, data, or abstract ideas at a high level of complexity.

(iv) - Transferable work skills. An individual is considered to have transferable skills when the skilled or semi-skilled work functions which he has demonstrated in his past work can be applied to meet the requirements of skilled or semi-skilled work functions of other jobs or kinds of work. Transferability depends largely on the similarity of occupationally significant work functions among jobs. Transferability is most probable and meaningful among jobs in which (a) the same or a lesser degree of skill is required; and (b) the same or similar tools and machines are used; and (c) the same or similar raw materials, products, processes, or services are involved. There are degrees of transferability ranging from a close approximation of work functions involving all three factors to only remote and incidental similarities among jobs. A complete similarity of all three factors is not necessary to warrant the inference of transferability.

(11) In determining whether jobs, as classified by their exertional and skill requirements, exist in significant numbers either in the region or the national economy, notice shall be taken of reliable job information available from various governmental and other publications providing current and updated data in this area;

e.g., County Business Patterns, published by the Bureau of the Census; Census Reports, also published by the Bureau of the Census; occupational analyses prepared for the Social Security Administration by various State employment agencies; and the Occupational Outlook Handbook, published by the Bureau of Labor Statistics.

(12) In the light of information that is available about jobs (classified by their exertional and skill requirements) that exist in the national economy, Appendix 2 sets forth rules that apply in determining whether disability exists in specific case situations where a determination is not made under the rules in § 404.1502(a) and Appendix 1 and the provisions of § 404.1502(c) do not apply. Where the case situation is not specifically described in Appendix 2, determinations as to whether disability exists shall be based on the principles in this subpart giving consideration to the rules for specific case situations in Appendix 2.

* * * * *

2. Subpart P of Part 404 is further amended by designating the Appendix (Listing of Impairments), appearing at the end thereof, as Appendix 1, and by adding a new Appendix 2, to read as follows:

APPENDIX 2
MEDICAL - VOCATIONAL GUIDELINES

Sec.

200.00 Introduction.
201.00 Maximum sustained work capability limited to sedentary work as a result of severe medically determinable impairment(s).
202.00 Maximum sustained work capability limited to light work as a result of severe medically determinable impairment(s).
203.00 Maximum sustained work capability limited to medium work as a result of severe medically determinable impairment(s).
204.00 Maximum sustained work capability limited to heavy work (or very heavy work) as a result of severe medically determinable impairment(s).

200.00 Introduction.

(a) The following rules represent the application of § 404.1502(b). They are derived from the general evaluation guidelines. They reflect the major functional and vocational patterns which occur in cases which do not fall within the criteria of § 404.1502(a) or § 404.1502(c), where an individual with a severe medically determinable physical or mental impairment(s) is not engaging in substantial gainful activity and his impairment prevents the performance of his vocationally relevant past work. They also reflect the analysis of the various vocational factors in combination with the individual's residual functional capacity in evaluating his ability to engage in substantial gainful activity and state the proper determination with respect to whether he is disabled. In the articulation of these rules, some recasting and refinement of the existing guidelines has been necessary, but there has been no significant change in substance. Most of the guidelines have been used for many years in the administration of title II disability benefits, and have also been applied in the determination of disability for the supplemental security income program, which went into effect January 1, 1974. In addition, the rules incorporate guidelines necessitated by the supplemental security income program which covers cases where the individual has no work history or lacks any meaningful work experience within the 15 year period prior to the beginning of the purported disability.

(b) The existence of jobs in the national economy is reflected in the "Decisions" shown in the rules; i.e., in promulgating the rules, administrative notice has been taken of the numbers of unskilled

jobs that exist throughout the national economy at the various functional levels (sedentary, light, medium, heavy and very heavy) as supported by the third edition of the Dictionary of Occupational Titles and the Occupational Outlook Handbook, published by the Department of Labor; the County Business Patterns and Census Surveys published by the Bureau of the Census; and occupational surveys of light and sedentary jobs prepared for the Social Security Administration by various State employment agencies. Thus, when all factors are compatible with a rule, there is no need to pursue further the issue of existence of such jobs, such as by eliciting live vocational testimony. Further, the rules should lessen the need for such vocational testimony in other cases where the factors in the individual's case come close to meeting the characteristics in the rules.

(c) In applying the rules, the individual's residual functional capacity (i.e., the maximum degree to which the individual retains the capacity for sustained performance of the physical-mental requirements of jobs), age, education, and work experience must first be determined.

(d) The correct disability decision (i.e., on the issue of ability to engage in substantial gainful activity) is found by then locating the individual's specific vocational profile. If an individual's specific profile is not listed within this Appendix 2, interpretation may be necessary to reach the correct result. Thus, for example, an individual's ability to engage in substantial gainful work where his residual functional capacity falls between the ranges of work indicated in the rules (e.g., the individual who can perform

more than light but less than medium work), will be decided on the basis of the principles of § 404.1502(b) giving consideration to the rules for specific case situations in this Appendix 2. Where the inability to communicate in English is an adjudicative factor, consideration must be given to the employment market in the region in which the individual lives as set forth in § 404.1502(b)(7).

(e) Since the rules are predicated on an individual's having an impairment which manifests itself by limitations in meeting the strength requirements of jobs, they may not be fully applicable where the nature of an individual's impairment does not result in such limitations, e.g., certain mental, sensory, or skin impairments. In addition, some impairments may result solely in postural and manipulative limitations or environmental restrictions. Environmental restrictions are those restrictions which result in inability to tolerate some physical feature(s) of work settings that occur in certain industries or types of work, e.g., an inability to tolerate dust or fumes.

(1) In the evaluation of disability where the individual has solely a nonexertional type of impairment, determination as to whether disability exists shall be based on the principles of § 404.1502(b), giving consideration to the rules for specific case situations in this Appendix 2.

(2) However, where an individual has an impairment or combination of impairments resulting in both strength limitations and nonexertional limitations, the rules herein will be considered in determining first whether a finding of disability may be possible based on the strength

limitations alone and, if not, the rule(s) reflecting the individual's maximum residual strength capabilities, age, education, and work experience will provide a framework for consideration of how much the individual's work capability is further diminished in terms of any types of jobs that would be contraindicated by the nonexertional limitations. Also, in these combinations of nonexertional and exertional limitations which cannot be wholly determined under the rules herein based, full consideration must be given to all of the relevant facts in the case in accordance with the provisions of § 404.1502(b).

201.00 Maximum sustained work capability limited to sedentary work as a result of severe medically determinable impairment(s).

(a) Most sedentary occupations fall within the skilled, semi-skilled, professional, administrative, technical, clerical, and benchwork classifications. Approximately 200 separate unskilled sedentary occupations can be identified, each representing numerous jobs in the national economy. Approximately 85 percent of these jobs are in the machine trades and benchwork occupational categories. These jobs (unskilled sedentary occupations) may be performed after a short demonstration or within 30 days.

(b) These unskilled sedentary occupations are standard within the industries in which they exist. While sedentary work represents a significantly restricted range of work, this range in itself is not so prohibitively restricted as to negate work capability for substantial gainful activity.

(c) Vocational adjustment to sedentary work as defined in § 404.1502(b)(9)(i) may be expected where the individual has special skills or experience relevant to sedentary work or where age and basic educational competences provide sufficient occupational mobility to adapt to the major segment of unskilled sedentary work. Inability to engage in substantial gainful activity would be indicated where a severely impaired individual lacks special skills or experience relevant to sedentary work, lacks educational qualifications relevant to most sedentary work (e.g., has a limited education or less) and his age, though not necessarily advanced, is a factor which significantly limits vocational adaptability.

(d) The adversity of functional restrictions to sedentary work at advanced age (55 and over) for individuals with no relevant past work or who can no longer perform vocationally relevant past work, and have no transferable skills, warrants a finding of disabled in the absence of education which provides a basis for entry into skilled sedentary work. Advanced age and a history of unskilled work or no work experience would ordinarily offset any vocational advantages that might accrue by reason of any remote past education, whether it is more or less than limited education.

(e) The presence of acquired skills that are readily transferable to a significant range of skilled work within an individual's residual functional capacity would ordinarily warrant a finding of ability to engage in substantial gainful activity regardless of the adversity of age, or whether the individual's formal education is commensurate with his demonstrated skill level. The acquisition of work skills demon-

strates the ability to perform work at the level of complexity demonstrated by the skill level attained regardless of the individual's formal educational attainments.

(f) In order to find transferability of skills to sedentary work for individuals who are of advanced age (55 and over), there must be very little, if any, vocational adjustment required in terms of tools, work processes, work settings, or the industry.

(g) The adversity of closely approaching advanced age (age 50-54 which, while not advanced, may significantly limit vocational adaptability) and restriction to sedentary work for individuals with no relevant past work or who can no longer perform vocationally relevant past work, and have no transferable skills, warrants a finding of disabled in the absence of the individual's having an education which provides a basis for entry into skilled sedentary work. For this age group, even a high school education or more (ordinarily completed in the remote past) would have little impact for effecting a vocational adjustment unless relevant work experience reflects use of such education.

(h) The term younger individual is used to denote ages 18 through 49. For those younger individuals who are age 45-49, age is a less positive factor, and restriction to sedentary work for such individuals with no relevant past work or who can no longer perform vocationally relevant past work, are unskilled and, in addition, are either illiterate or unable to communicate in the English language, a finding of disabled is warranted.

(i) For younger individuals who are under age 45, age is not a significant factor in limiting vocational adjustment to sedentary unskilled work and even if the individual is illiterate or unable to communicate in English, a finding of not disabled would ordinarily be warranted.

(j) While illiteracy or the inability to communicate in English may significantly limit an individual's vocational scope, the primary work functions in the bulk of unskilled work relate to working with things (rather than with data or people) and in these work functions at the unskilled level, literacy or ability to communicate in English has the least significance. Similarly, the lack of relevant work experience would have the least significance since the bulk of unskilled jobs require no qualifying work experience. Thus, the functional capability for a full range of sedentary work represents sufficient numbers of jobs to indicate substantial vocational scope for those younger individuals under age 45 even if they are illiterate or unable to communicate in English.

TABLE NO. 1

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO SEDENTARY WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
201.01	Advanced Age	Limited or Less	Unskilled or None	DISABLED
201.02	Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills not transferable	DISABLED
201.03	Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
201.04	Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Unskilled or None	DISABLED
201.05	Advanced Age	High School Graduate or More --provides for direct entry into skilled work	Unskilled or None	NOT DISABLED
201.06	Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	DISABLED
201.07	Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
201.08	Advanced Age	High School Graduate or More --provides for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
201.09	Closely Approaching Advanced Age	Limited or Less	Unskilled or None	DISABLED

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MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO SEDENTARY WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
201.10	Closely Approaching Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills not transferable	DISABLED
201.11	Closely Approaching Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
201.12	Closely Approaching Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Unskilled or None	DISABLED
201.13	Closely Approaching Advanced Age	High School Graduate or More --provides for direct entry into skilled work	Unskilled or None	NOT DISABLED
201.14	Closely Approaching Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	DISABLED
201.15	Closely Approaching Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
201.16	Closely Approaching Advanced Age	High School Graduate or More --provides for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
201.17	Younger Individual Age 45-49	Illiterate or Unable to Communicate in English	Unskilled or None	DISABLED

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO SEDENTARY WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
201.18	Younger Individual Age 45-49	Limited or Less —At least literate and able to communicate in English	Unskilled or None	NOT DISABLED
201.19	Younger Individual Age 45-49	Limited or Less	Skilled or Semi-skilled —Skills not transferable	NOT DISABLED
201.20	Younger Individual Age 45-49	Limited or Less	Skilled or Semi-skilled —Skills transferable	NOT DISABLED
201.21	Younger Individual Age 45-49	High School Graduate or More	Skilled or Semi-skilled —Skills not transferable	NOT DISABLED
201.22	Younger Individual Age 45-49	High School Graduate or More	Skilled or Semi-skilled —Skills transferable	NOT DISABLED
201.23	Younger Individual Age 18-44	Illiterate or unable to communicate in English	Unskilled or None	NOT DISABLED
201.24	Younger Individual Age 18-44	Limited or Less —At least literate and able to communicate in English	Unskilled or None	NOT DISABLED
201.25	Younger Individual Age 18-44	Limited or Less	Skilled or Semi-skilled —Skills not transferable	NOT DISABLED
201.26	Younger Individual Age 18-44	Limited or Less	Skilled or Semi-skilled —Skills transferable	NOT DISABLED
201.27	Younger Individual Age 18-44	High School Graduate or More	Unskilled or None	NOT DISABLED

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO SEDENTARY WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
201.28	Younger Individual Age 18-44	High School Graduate or More	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
201.29	Younger Individual Age 18-44	High School Graduate or More	Skilled or Semi-skilled --Skills transferable	NOT DISABLED

202.00 Maximum sustained work capability limited to light work as a result of severe medically determinable impairment(s).

(a) The functional capacity to perform a full range of light work as defined in § 404.1502(b)(9)(ii) includes the functional capacity to perform sedentary as well as light work. Approximately 1,600 separate sedentary and light unskilled occupations can be identified in eight broad occupational categories, each occupation representing numerous jobs in the national economy. These jobs can be performed after a short demonstration or within 30 days, and do not require special skills or experience.

(b) The functional capacity to perform a wide or full range of light work represents substantial work capability compatible with making a work adjustment to substantial numbers of unskilled jobs and, thus, generally provides sufficient occupational mobility even for severely impaired individuals who are not of advanced age and have sufficient educational competences for unskilled work.

(c) However, the limitations in vocational adaptability represented by functional restriction to light work for individuals of advanced age who can no longer perform vocationally relevant past work and have a history of unskilled work experience, no work experience, or have skills that are not readily transferable to a significant range of skilled work that is within the individual's functional capacity, warrant a finding of disabled -- in the absence of education which provides for direct entry into skilled work. Ordinarily, even a high school education or more which was completed in the remote past will have little impact on effecting a vocational adjustment unless relevant work experience reflects use of such education.

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(d) Given the same factors in paragraph (c) of this section regarding education and work experience, where age, though not advanced, is a factor which significantly limits vocational adaptability (i.e., closely approaching advanced age, 50-54) and an individual's vocational scope is further significantly limited by illiteracy or inability to communicate in English, a finding of disabled is warranted.

(e) The presence of acquired skills that are readily transferable to a significant range of skilled work within an individual's residual functional capacity would ordinarily warrant a finding of not disabled regardless of the adversity of age, or whether the individual's formal education is commensurate with his demonstrated skill level. The acquisition of work skills demonstrates the ability to perform work at the level of complexity demonstrated by the skill level attained regardless of the individual's formal educational attainments.

(f) To find transferability of skills to light work for individuals of advanced age who are closely approaching retirement age (age 60-64), there must be very little, if any, vocational adjustment required in terms of tools, work processes, work settings, or the industry.

(g) While illiteracy or the inability to communicate in English may significantly limit an individual's vocational scope, the primary work functions in the bulk of unskilled work relate to working with things (rather than with data or people) and in these work functions

at the unskilled level, literacy or ability to communicate in English has the least significance. Similarly, the lack of relevant work experience would have the least significance since the bulk of unskilled jobs require no qualifying work experience. The capability for light work represents substantial numbers of such jobs, which in turn represents substantial vocational scope for younger individuals (age 18-49) even if illiterate or unable to communicate in English.

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TABLE NO. 2

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO LIGHT WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
202.01	Advanced Age	Limited or Less	Unskilled or None	DISABLED
202.02	Advanced Age	Limited or Less	Skilled or Semi-skilled —Skills not transferable	DISABLED
202.03	Advanced Age	Limited or Less	Skilled or Semi-skilled —Skills transferable	NOT DISABLED
202.04	Advanced Age	High School Graduate or More —does not provide for direct entry into skilled work	Unskilled or None	DISABLED
202.05	Advanced Age	High School Graduate or More —provides for direct entry into skilled work	Unskilled or None	NOT DISABLED
202.06	Advanced Age	High School Graduate or More —does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	DISABLED
202.07	Advanced Age	High School Graduate or More —does not provide for direct entry into skilled work	Skilled or Semi-skilled —Skills transferable	NOT DISABLED
202.08	Advanced Age	High School Graduate or More —provides for direct entry into skilled work	Skilled or Semi-skilled —Skills not transferable	NOT DISABLED
202.09	Closely Approaching Advanced Age	Illiterate or unable to communicate in English	Unskilled or None	DISABLED

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO LIGHT WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S) .

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
202.10	Closely Approaching Advanced Age	Limited or Less --At least literate and able to communicate in English	Unskilled or None	NOT DISABLED
202.11	Closely Approaching Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
202.12	Closely Approaching Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
202.13	Closely Approaching Advanced Age	High School Graduate or More	Unskilled or None	NOT DISABLED
202.14	Closely Approaching Advanced Age	High School Graduate or More	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
202.15	Closely Approaching Advanced Age	High School Graduate or More	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
202.16	Younger Individual	Illiterate or unable to communicate in English	Unskilled or None	NOT DISABLED
202.17	Younger Individual	Limited or Less --At least literate and able to communicate in English	Unskilled or None	NOT DISABLED

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO LIGHT WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
202.18	Younger Individual	Limited or Less	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
202.19	Younger Individual	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
202.20	Younger Individual	High School Graduate or More	Unskilled or None	NOT DISABLED
202.21	Younger Individual	High School Graduate or More	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
202.22	Younger Individual	High School Graduate or More	Skilled or Semi-skilled --Skills transferable	NOT DISABLED

203.00 Maximum sustained work capability limited to medium work as a result of severe medically determinable impairment(s).

(a) The functional capacity to perform medium work as defined in § 404.1502(b)(9)(iii) includes the functional capacity to perform sedentary, light, and medium work. Approximately 2,500 separate sedentary, light, and medium occupations can be identified, each occupation representing numerous jobs in the national economy which do not require skills or previous experience and which can be performed after a short demonstration or within 30 days.

(b) The functional capacity to perform medium work represents such substantial work capability at even the unskilled level that a finding of disabled is ordinarily not warranted in cases where a severely impaired individual retains the functional capacity to perform medium work. Even the adversity of advanced age (55 or over) and lack of skills may be offset by the substantial work capability represented by the functional capacity to perform medium work.

(c) However, for individuals of advanced age (55 and over) with no relevant work experience and a limited education or less, the combined adversities militate against making a vocational adjustment to even this substantial range of work and a finding of disabled is appropriate. Further, for individuals closely approaching retirement age (60-64) with a work history of unskilled work and with marginal education or less, a finding of disabled is appropriate.

TABLE NO. 3

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO MEDIUM WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
203.01	Closely Approaching Retirement Age	Marginal or None	Unskilled or None	DISABLED
203.02	Closely Approaching Retirement Age	Limited or Less	None	DISABLED
203.03	Closely Approaching Retirement Age	Limited	Unskilled	NOT DISABLED
203.04	Closely Approaching Retirement Age	Limited or Less	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.05	Closely Approaching Retirement Age	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
203.06	Closely Approaching Retirement Age	High School Graduate or More	Unskilled or None	NOT DISABLED
203.07	Closely Approaching Retirement Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.08	Closely Approaching Retirement Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills transferable	NOT DISABLED

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO MEDIUM WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
203.09	Closely Approaching Retirement Age	High School Graduate or More --provides for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.10	Advanced Age	Limited or Less	None	DISABLED
203.11	Advanced Age	Limited or Less	Unskilled	NOT DISABLED
203.12	Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.13	Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
203.14	Advanced Age	High School Graduate or More	Unskilled or None	NOT DISABLED
203.15	Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.16	Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
203.17	Advanced Age	High School Graduate or More --provides for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.18	Closely Approaching Advanced Age	Limited or Less	Unskilled or None	NOT DISABLED

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO MEDIUM WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
203.19	Closely Approaching Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.20	Closely Approaching Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
203.21	Closely Approaching Advanced Age	High School Graduate or More	Unskilled or None	NOT DISABLED
203.22	Closely Approaching Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.23	Closely Approaching Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
203.24	Closely Approaching Advanced Age	High School Graduate or More --provides for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.25	Younger Individual	Limited or Less	Unskilled or None	NOT DISABLED
203.26	Younger Individual	Limited or Less	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO MEDIUM WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
203.27	Younger Individual	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
203.28	Younger Individual	High School Graduate or More	Unskilled or None	NOT DISABLED
203.29	Younger Individual	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.30	Younger Individual	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
203.31	Younger Individual	High School Graduate or More --provides for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED

204.00 Maximum sustained work capability limited to heavy work (or very heavy work) as a result of severe medically determinable impairment(s).

The residual functional capacity to perform heavy work as defined in § 404.1502(b)(9)(iv), or very heavy work as defined in § 404.1502 (b)(9)(v) includes the functional capability for work at the lesser functional levels as well, and represents substantial work capability for jobs in the national economy at all skill and physical demand levels. Individuals who retain the functional capacity to perform heavy work (or very heavy work) ordinarily will not have a severe impairment or will be able to do their past work--either of which would have already provided a basis for a decision of "not disabled" under § 404.1502(a) or § 404. 1502(b), respectively. Environmental restrictions ordinarily would not significantly affect the range of work existing in the national economy for individuals with the physical capability for heavy work (or very heavy work). Thus, an impairment which does not preclude heavy work (or very heavy work) would not ordinarily be the primary reason for unemployment, and generally is sufficient for a finding of not disabled, even though age, education, and skill level of prior work experience may be considered adverse.

3. Section 416.902 is amended by deleting paragraphs (d) and (e) and by revising paragraphs (a) and (b) to read as follows:

§ 416.902 Evaluation of disability except for purposes of statutory blindness or widow's or widower's benefits.

(a) In determining whether or not an impairment in a particular case involving disability under section 1614(a)(3)(A) of the Act (except

in the case of a child under age 18) constitutes a disability, as defined in § 416.901(b)(1), primary consideration is given to the severity of the individual's physical or mental impairment(s). Medical considerations alone can justify a finding that the individual is not under a disability where the medically determinable impairment is not severe, e.g., does not significantly limit the individual's physical or mental capacity to perform basic work-related functions. On the other hand, medical considerations alone (including the physiological and psychological manifestation of aging) can, except where other evidence rebuts a finding of "disabled," e.g., the individual is actually engaging in substantial gainful activity, justify a finding that the individual is under a disability where his impairment is one that meets the duration requirement in § 416.901(b)(1) and is listed in Part A of Appendix 1 of this Subpart I, or the Secretary determines the individual's impairment (or combined impairments) to be medically the equivalent of a listed impairment (see § 416.905). When a determination cannot be made on the basis of medical considerations alone and the individual is not engaged in substantial gainful activity, consideration is then given to such other factors as the individual's age, education, and work experience.

(b)(1) Conditions which constitute neither a listed impairment nor the medical equivalent thereof likewise may be found disabling if they constitute a severe impairment and objective evidence shows that they do, in fact, prevent the individual from engaging in any substantial gainful activity. In determining such inability to engage in substantial gainful activity the age, education, and work experience of the individual must be considered in addition to the functional

limitations imposed by the individual's physical or mental impairments. However, the physical or mental impairment or impairments must be the primary reason for the inability to engage in substantial gainful activity.

(2) The kind and severity of impairment determine the individual's work limitations and residual functional capacity. The manner in which the impairment or impairments affect the individual's ability to perform work-related physical and mental activities, and the kind and extent of function he retains, are assessed in determining the individual's residual functional capacity. When multiple impairments are involved, the assessment of residual functional capacity reflects the totality of restrictions resulting from all impairments. This assessment is based on all relevant evidence pertaining to residual functional capacity which is consistent with appropriate clinical and laboratory findings. Assessment of physical capacities (e.g., strength and exertional capabilities) includes an evaluation of the individual and indicates his maximal residual functional capacity for sustained activity on a regular basis in terms of ability to do sedentary, light, medium, heavy, or very heavy work as defined in paragraph (b)(9) of this section. Such assessment takes account of ability to perform significant physical functions such as walking, standing, lifting, carrying, pushing, or pulling, and such other physical traits as reaching, handling, seeing, hearing, and speaking insofar as limited capacity to perform these activities may affect the individual's capacity for work for which he would otherwise be qualified. The assessment of mental capacity includes con-

sideration of such factors as the capacity to understand, carry out and remember instructions, to use acceptable judgment, to respond appropriately to supervision, co-workers, and customary work pressures, to behave without constant supervision in a routine work setting, and to deal with problems involving variables in standardized work situations. Where no issue with respect to specific physical or mental capacities is raised by the allegations of the individual or the evidence adduced, findings respecting such capacities are not to be made. The individual has the burden of proving that he is disabled and of raising any issue with respect thereto. In establishing disability for purposes of title XVI, the Secretary will assist the individual in meeting that burden by securing and paying for medical evidence needed for a sound determination. See H. Rep. No. 92-231, 92d Cong., 1st Sess., p. 148, and Sen. Rep. No. 92-1230, 92d Cong., 2d Sess., p. 384.

(3) Where the residual functional capacity so determined is sufficient to enable the individual to do his previous work (i.e., usual work or other past work), a determination will be made that the individual is not under a disability. Where the residual functional capacity so determined is not sufficient to enable the individual to do his previous work, assessment is made of work he can do, taking into consideration his residual functional capacity, age, education, and work experience and whether work that he can do exists in the national economy.

(4) A finding that work exists in the national economy is made when there is a significant number of jobs (in one or more occupations) having typical requirements which do not exceed the individual's physical or mental capacities and vocational qualifications. Work is considered to exist in the national economy when it exists in significant numbers either in the region where such individual lives or in several other regions of the country, regardless of whether such work exists in the immediate area in which he lives, or whether a specific job vacancy exists for him, or whether he would be hired if he applied for work. Isolated jobs of a type that exists only in very limited number or in relatively few geographic locations outside of the region where the individual resides are not considered to be "work which exists in the national economy" for purposes of determining whether an individual is under a disability; an individual is not denied benefits on the basis of the existence of such jobs. If such work that the individual can do does not exist in the national economy, disability shall be determined to exist. If such work does exist in the national economy, disability shall be determined not to exist.

(5) If an individual's residual functional capacity and vocational capabilities are consistent with the performance of work which exists in the national economy but he remains unemployed because he is unsuccessful in obtaining such work or because such work does not exist in his local area; or because of the hiring practices of employers, technological changes in the industry in which he has worked or cyclical

economic conditions; or because there are no job openings for him or he would not actually be hired to do work he could otherwise perform, the individual is considered not to be under a disability as defined in § 416.901(b)(1).

(6) The term "age" refers to chronological age and the extent to which it affects the individual's capability to engage in work in competition with others. In the case of a younger individual, age in itself is not considered to affect significantly the individual's ability to adapt to a new work situation. Where a severely impaired individual is of advanced age (age 55 or over), such ability may be adversely affected except where the individual has skills that are readily transferable. "Advanced" age represents the point where age substantially affects capability to engage in substantial work. For the individual not of advanced age but who is closely approaching advanced age, the factor of age, in combination with a severe impairment and limited vocational background, may substantially affect his adaptability to a significant number of jobs in a competitive work environment. However, the factor of age in itself is not determinative of disability; the residual functional capacity and the education and work experience of the individual must also be considered. An individual who is unemployed because of age cannot be found incapable of engaging in substantial gainful activity when his impairment and other vocational considerations, e.g., education and work experience, would enable him to perform a significant number of jobs which exist in the national economy.

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(7) The term "education" is used in the sense of formal schooling or other training, the acquisition of which contributes to the individual's ability to meet vocational requirements, e.g., reasoning ability, communication skills, and arithmetical ability. In reference to meeting the education requirements of jobs, the inability to communicate in English generally represents a vocational handicap in that it may preclude an individual from performing even those unskilled jobs which require conversing with peers and supervisors, as well as reading instructions, signs, forms, etc. However, the inability to communicate in English would not be considered a vocational handicap to work adjustment where analysis of the employment market in the region in which the individual lives produces evidence that would support a contrary finding. Where there is evidence of the existence of a substantial number of jobs in the region in which the claimant lives that can be performed by persons with his particular linguistic abilities, the inability to communicate in English may not be considered to be a determinative factor in a finding of disability. For example, for residents of Puerto Rico proficiency in Spanish, the principal language, insures against any significant work limitations due to an inability to communicate in English. Lack of formal schooling is not necessarily proof that the individual is uneducated or lacks such capacities. For individuals with past work experience, the kinds of responsibilities assumed when working may indicate the existence of such intellectual capacities although their formal education is limited. Other evidence of such capacities, for individuals

with or without past work experience, may consist of daily activities, hobbies, or the results of intelligence testing. The significance of an individual's educational background may be materially affected by the time lapse between the completion of his formal education and the onset of physical or mental impairment(s) and by what the individual has done with his education in a work context. Formal education that was completed many years prior to onset of impairment or unused skills and knowledge that were a part of such formal education may no longer be useful or meaningful in terms of the claimant's ability to work. In evaluating the educational level of an individual, the following classifications are used:

(i) Illiteracy. Illiteracy refers to the inability to read or write. An individual who is able to sign his name, but cannot read or write a simple communication (e.g., instructions, inventory lists), is considered illiterate. Generally, an illiterate individual has had little or no formal schooling.

(ii) Marginal education. Marginal education refers to competence in reasoning, arithmetic, and language skills which are required for the performance of simple, unskilled types of jobs. In the absence of evidence to the contrary, formal schooling at a grade level of sixth grade or less is considered a marginal education.

(iii) Limited education. Limited education refers to those educational competences in reasoning, arithmetic, and language skills which, although more than that which is generally required to carry out the duties of unskilled work, do not provide the individual with the educational qualifications necessary to perform the majority of more

complex job duties involved in semi-skilled or skilled jobs. In the absence of evidence to the contrary, a seventh grade through the eleventh grade of formal education is considered a limited education.

(iv) High school and college education. High school education and above refers to competence in reasoning, arithmetic and language skills acquired through formal schooling at a level of grade twelve or above. In the absence of evidence to the contrary, these educational capacities would qualify an individual for work at a semi-skilled through a skilled level of job complexity.

(8) The term "work experience" means skills and abilities acquired through work previously performed by the individual which indicates the type of work he may be expected to perform. Work for which the individual has demonstrated a capability is the best indicator of the kind of work that the individual can be expected to do. Such work experience has current vocational relevance where the recency of the work or the skills acquired demonstrate the individual's ability to perform work which exists in the national economy. Work performed 15 years or more prior to the beginning of the purported disability is ordinarily not considered vocationally relevant. An individual who has no prior work experience or has worked only sporadically or for brief periods of time during the 15 years prior to the beginning of the purported disability may be considered to have no relevant work experience. Skills and abilities acquired through work experience are vocational assets unless they are not transferable to work within the individual's current capacities. However, an individual need not have

work experience to qualify for unskilled work which requires little or no judgment in the performance of simple duties which can be learned in a short period of time.

(9) For the purpose of determining exertional requirements of work in the national economy, jobs are classified as "sedentary," "light," "medium," "heavy," and "very heavy." Such terms have the same meaning as they have in the Dictionary of Occupational Titles published by the Department of Labor, and when used in making disability determinations under this subpart, are defined as follows:

(i) Sedentary work. Sedentary work entails lifting 10 pounds maximum and occasionally lifting or carrying such articles as dockets (e.g., files), ledgers, and small tools. Although a sedentary job is defined as one which involves sitting, a certain amount of walking and standing is often necessary in carrying out job duties. Jobs are sedentary if walking and standing are required occasionally and other sedentary criteria are met.

(ii) Light work. Light work entails lifting 20 pounds maximum with frequent lifting or carrying of objects weighing up to 10 pounds. Even though the weight lifted may be only a negligible amount, a job is in this category when it requires walking or standing to a significant degree, or when it involves sitting most of the time with a degree of pushing and pulling of arm or leg controls. To be considered capable of performing a full or wide range of light work an individual must be capable of performing substantially all of the foregoing activities. The functional capacity to perform light work includes the functional capacity to perform sedentary work.

(iii) Medium work. Medium work entails lifting 50 pounds maximum with frequent lifting or carrying of objects weighing up to 25 pounds. The functional capacity to perform medium work includes the functional capacity to perform sedentary work and light work as well.

(iv) Heavy work. Heavy work entails lifting 100 pounds maximum with frequent lifting or carrying of objects weighing up to 50 pounds. The functional capacity to perform heavy work includes the functional capacity to perform work at all of the lesser functional levels.

(v) Very heavy work. Very heavy work entails lifting objects in excess of 100 pounds with frequent lifting or carrying of objects weighing 50 pounds or more. The functional capacity to perform very heavy work includes the functional capacity to perform work at all of the lesser functional levels.

(10) For purposes of assessing the skills reflected by an individual's work experience, and in determining the existence in the national economy of work the individual is competent to do, occupations are classified as unskilled, semi-skilled, and skilled. When used in making disability determinations under this subpart, these terms are used in the following sense:

(i) Unskilled work. Unskilled work denotes work which requires little or no judgment in the performance of simple duties that can be learned on the job in a short period of time. Considerable strength may or may not be required. Where the primary work function of occupations consists of handling, feeding, and offbearing (i.e., placing or removing materials from machines which are automatic or operated by others), or machine tending, an average successful job performance

can ordinarily be achieved within 30 days and, therefore, such occupations are considered unskilled. Other types of jobs requiring little specific vocational preparation and little judgment are likewise unskilled.

(ii) Semi-skilled work. Semi-skilled work denotes work in which some skills are involved but the more complex work functions are not required. Semi-skilled jobs may require alertness and close attention to watching machine processes; or inspecting, testing or otherwise detecting irregularities; or tending or guarding equipment, property, materials, or persons against loss, damage or injury; or other types of activities involving less complex work functions. A job may be classified as semi-skilled where coordination and dexterity are necessary as in the use of the hands or feet for the rapid performance of repetitive tasks.

(iii) Skilled work. Skilled work requires qualifications in which the independent judgment of the individual determines the machine and manual operations to be performed in obtaining the proper form, quality, or quantity of material to be produced. The individual may be required to lay out work, to estimate quality, suitability and needed quantities of materials, to make precise measurements, to read blueprints or other specifications, and to make necessary computations or mechanical adjustments to control or regulate processes. Other skilled jobs may require dealing with personnel, data, or abstract ideas at a high level of complexity.

(iv) Transferable work skills. An individual is considered to have transferable skills when the skilled or semi-skilled work functions which he has demonstrated in his past work can be applied to meet the requirements of skilled or semi-skilled work functions of other jobs or kinds of work. Transferability depends largely on the similarity of occupationally significant work functions among jobs. Transferability is most probable and meaningful among jobs in which (a) the same or a lesser degree of skill is required; and (b) the same or similar tools and machines are used; and (c) the same or similar raw materials, products, processes, or services are invclved. There are degrees of transferability ranging from a close approximation of work functions involving all three factors to only remote and incidental similarities among jobs. A complete similarity of all three factors is not necessary to warrant the inference of transferability.

(11) In determining whether jobs as classified by their exertional and skill requirements exist in significant numbers either in the region or the national economy, notice shall be taken of reliable job information available from various governmental and other publications providing current and updated data in this area; e.g., County Business Patterns, published by the Bureau of the Census; Census Reports, also published by the Bureau of the Census; occupational analyses prepared for the Social Security Administration by various State employment agencies; and the Occupational Outlook Handbook, published by the Bureau of Labor Statistics.

(12) In the light of information that is available about jobs (classified by their exertional and skill requirements) that exist in the national economy, Appendix 2 sets forth rules that apply in determining whether disability exists in specific case situations where a determination is not made under the rules in § 416.902(a) and Appendix 1 and the provisions of § 416.902(c) do not apply. Where the case situation is not specifically described in Appendix 2, determinations as to whether disability exists shall be based on the principles in this subpart giving consideration to the rules for specific case situations in Appendix 2.

* * * * *

4. Subpart I of Part 416 is further amended by designating the Appendix (Listing of Impairments), appearing at the end thereof, as Appendix 1, and by adding a new Appendix 2, to read as follows:

APPENDIX 2
MEDICAL - VOCATIONAL GUIDELINES

Secs.
200.00 Introduction.
201.00 Maximum sustained work capability limited to sedentary work as a result of severe medically determinable impairment(s).
202.00 Maximum sustained work capability limited to light work as a result of severe medically determinable impairment(s).
203.00 Maximum sustained work capability limited to medium work as a result of severe medically determinable impairment(s).
204.00 Maximum sustained work capability limited to heavy work (or very heavy work) as a result of severe medically determinable impairment(s).

200.00 Introduction.

(a) The following rules represent the application of § 416.902(b). They are derived from the general evaluation guidelines. They reflect the major functional and vocational patterns which occur in cases which do not fall within the criteria of § 416.902(a) or § 416.902(c),

where an individual with a severe medically determinable physical or mental impairment(s) is not engaging in substantial gainful activity and his impairment prevents the performance of his vocationally relevant past work. They also reflect the analysis of the various vocational factors in combination with the individual's residual functional capacity in evaluating his ability to engage in substantial gainful activity and state the proper determination with respect to whether he is disabled. In the articulation of these rules, some recasting and refinement of the existing guidelines has been necessary, but there has been no significant change in substance. Most of the guidelines have been used for many years in the administration of title II disability benefits, and have also been applied in the determination of disability for the supplemental security income program which went into effect January 1, 1974. In addition, the rules incorporate guidelines necessitated by the supplemental security income program which covers cases where the individual has no work history or lacks any meaningful work experience within the 15 year period prior to the beginning of the purported disability.

(b) The existence of jobs in the national economy is reflected in the "Decisions" shown in the rules; i.e., in promulgating the rules, administrative notice has been taken of the numbers of unskilled jobs that exist throughout the national economy at the various functional levels (sedentary, light, medium, heavy, and very heavy) as supported by the third edition of the Dictionary of Occupational Titles and the Occupational Outlook Handbook, published by the Department of Labor; the County Business Patterns and Census Surveys published by the Bureau of the Census; and occupational surveys of light and sedentary jobs

prepared for the Social Security Administration by various State employment agencies. Thus, when all factors are compatible with a rule, there is no need to pursue further the issue of existence of such jobs, such as eliciting live vocational testimony. Further, the rules should lessen the need for such vocational testimony in other cases where the factors of the individual's case come close to meeting the characteristics in the rules.

(c) In applying the rules, the individual's residual functional capacity (i.e., the maximum degree to which the individual retains the capacity for sustained performance of the physical-mental requirements of jobs), age, education, and work experience must first be determined.

(d) The correct disability decision (i.e., on the issue of ability to engage in substantial gainful activity) is found by then locating the individual's specific vocational profile. If an individual's specific profile is not listed within this Appendix 2, interpretation may be necessary to reach the correct result. Thus, for example, an individual's ability to engage in substantial gainful activity where his residual functional capacity falls between the ranges of work indicated in the rules (e.g., the individual who can perform more than light but less than medium work), will be decided on the basis of the principles of § 416.902(b) giving consideration to the rules for specific case situations in this Appendix 2. Where the inability to communicate in English is an adjudicative factor, consideration must be given to the employment market in the region in which the individual lives as set forth in § 404.1502(b)(7).

(e) Since the rules are predicated on an individual's having an impairment which manifests itself by limitations in meeting the strength requirements of jobs, they may not be fully applicable where the nature of an individual's impairment does not result in such limitations, e.g., certain mental, sensory, or skin impairments. In addition, some impairments may result solely in postural and manipulative limitations or environmental restrictions. Environmental restrictions are those restrictions which result in inability to tolerate some physical feature(s) of work settings that occur in certain industries or types of work, e.g., an inability to tolerate dust or fumes. In the evaluation of disability where the individual has solely a nonexertional type of impairment, determination as to whether disability exists shall be based on the principles of § 416.902(b), giving consideration to the rules for specific case situations in this Appendix 2.

(f) However, where an individual has an impairment or combination of impairments resulting in both strength limitations and nonexertional limitations, the rules herein will be considered in determining first whether a finding of disability may be possible based on the strength limitations alone and, if not, the rule(s) reflecting the individual's maximum residual strength capabilities, age, education, and work experience will provide a framework for consideration of how much the individual's work capability is further diminished in terms of any types of jobs that would be contraindicated by the nonexertional limitations. Also, in these combinations of nonexertional and exertional limitations which cannot be wholly determined under the rules herein based, full consideration must be given to all of the relevant facts in the case

in accordance with the provisions of § 416.902(b).

201.00 Maximum sustained work capability limited to sedentary work as a result of severe medically determinable impairment(s).

(a) Most sedentary occupations fall within the skilled, semi-skilled, professional, administrative, technical, clerical, and benchwork classifications. Approximately 200 separate unskilled sedentary occupations can be identified, each representing numerous jobs in the national economy. Approximately 85 percent of these jobs are in the machine trades and benchwork occupational categories. These jobs (unskilled sedentary occupations) may be performed after a short demonstration or within 30 days.

(b) These unskilled sedentary occupations are standard within the industries in which they exist. While sedentary work represents a significantly restricted range of work, this range in itself is not so prohibitively restricted as to negate work capability for substantial gainful activity.

(c) Vocational adjustment to sedentary work as defined in § 416.902(b)(9)(i) may be expected where the individual has special skills or experience relevant to sedentary work or where age and basic educational competences provide sufficient occupational mobility to adapt to the major segment of unskilled sedentary work. Inability to engage in substantial gainful activity would be indicated where a severely impaired individual lacks special skills or experience relevant to sedentary work, lacks educational qualifications relevant to most sedentary work (e.g., has a limited education or less), and his age, though not necessarily advanced, is a factor which significantly limits vocational adaptability.

(d) The adversity of functional restriction to sedentary work at advanced age (55 and over) for individuals with no relevant past work or who can no longer perform vocationally relevant past work, and have no transferable skills, warrants a finding of disabled in the absence of education which provides a basis for entry into skilled sedentary work. Advanced age and a history of unskilled work or no work experience would ordinarily offset any vocational advantages that might accrue by reason of any remote past education, whether it is more or less than limited education.

(e) The presence of acquired skills that are readily transferable to a significant range of skilled work within an individual's residual functional capacity would ordinarily warrant a finding of ability to engage in substantial gainful activity regardless of the adversity of age, or whether the individual's formal education is commensurate with his demonstrated skill level. The acquisition of work skills demonstrates the ability to perform work at the level of complexity demonstrated by the skill level attained regardless of the individual's formal educational attainments.

(f) In order to find transferability of skills to sedentary work for individuals who are of advanced age (55 and over), there must be very little, if any, vocational adjustment required in terms of tools, work processes, work settings, or the industry.

(g) The adversity of closely approaching advanced age (age 50-54 which, while not advanced, may significantly limit vocational adaptability) and restriction to sedentary work for individuals with no relevant past work or who can no longer perform vocationally relevant past work,

and have no transferable skills, warrants a finding of disabled in the absence of the individual's having an education which provides a basis for entry into skilled sedentary work. For this group, even a high school education or more (ordinarily completed in the remote past) would have little impact for effecting a vocational adjustment unless relevant work experience reflects use of such education.

(h) The term younger individual is used to denote age 18 through 49. For those younger individuals who are age 45-49, age is a less positive factor, and restriction to sedentary work for such individuals with no relevant past work or who can no longer perform vocationally relevant past work and are unskilled and, in addition, are either illiterate or unable to communicate in the English language, a finding of disabled is warranted.

(i) For younger individuals who are under age 45, age is not a significant factor in limiting vocational adjustment to sedentary unskilled work and even if the individual is illiterate or unable to communicate in English, a finding of not disabled would ordinarily be warranted.

(j) While illiteracy or the inability to communicate in English may significantly limit an individual's vocational scope, the primary work functions in the bulk of unskilled work relate to working with things (rather than with data or people) and in these work functions at the unskilled level, literacy or ability to communicate in English has the least significance. Similarly, the lack of relevant work experience would have the least significance since the bulk of unskilled jobs require no qualifying work experience. Thus, the functional

capability for a full range of sedentary work represents sufficient numbers of jobs to indicate substantial vocational scope for those Younger individuals under age 45 even if they are illiterate or unable to communicate in English.

TABLE NO. 1

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO SEDENTARY WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
201.01	Advanced Age	Limited or Less	Unskilled or None	DISABLED
201.02	Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills not transferable	DISABLED
201.03	Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
201.04	Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Unskilled or None	DISABLED
201.05	Advanced Age	High School Graduate or More --provides for direct entry into skilled work	Unskilled or None	NOT DISABLED
201.06	Advanced Age	High School Graduate or More —does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	DISABLED
201.07	Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
201.08	Advanced Age	High School Graduate or More --provides for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
201.09	Closely Approaching Advanced Age	Limited or Less	Unskilled or None	DISABLED

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO SEDENTARY WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
201.10	Closely Approaching Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills not transferable	DISABLED
201.11	Closely Approaching Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
201.12	Closely Approaching Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Unskilled or None	DISABLED
201.13	Closely Approaching Advanced Age	High School Graduate or More --provides for direct entry into skilled work	Unskilled or None	NOT DISABLED
201.14	Closely Approaching Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	DISABLED
201.15	Closely Approaching Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled —Skills transferable	NOT DISABLED
201.16	Closely Approaching Advanced Age	High School Graduate or More --provides for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO SEDENTARY WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
201.17	Younger Individual Age 45-49	Illiterate or Unable to communicate in English	Unskilled or None	DISABLED
201.18	Younger Individual Age 45-49	Limited or Less --At least literate and able to communicate in English	Unskilled or None	NOT DISABLED
201.19	Younger Individual Age 45-49	Limited or Less	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
201.20	Younger Individual Age 45-49	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
201.21	Younger Individual Age 45-49	High School Graduate or More	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
201.22	Younger Individual Age 45-49	High School Graduate or More	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
201.23	Younger Individual Age 18-44	Illiterate or unable to communicate in English	Unskilled or None	NOT DISABLED
201.24	Younger Individual Age 18-44	Limited or Less --At least literate and able to communicate in English	Unskilled or None	NOT DISABLED
201.25	Younger Individual Age 18-44	Limited or Less	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
201.26	Younger Individual Age 18-44	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO SEDENTARY WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
201.27	Younger Individual Age 18-44	High School Graduate or More	Unskilled or None	NOT DISABLED
201.28	Younger Individual Age 18-44	High School Graduate or More	Skilled or Semi-skilled --Skills not transferable .	NOT DISABLED
201.29	Younger Individual Age 18-44	High School Graduate or More	Skilled or Semi-skilled --Skills transferable	NOT DISABLED

202.00 Maximum sustained work capability limited to light work as a result of severe medically determinable impairment(s).

(a) The functional capacity to perform a full range of light work as defined in § 416.902(b)(9)(ii) includes the functional capacity to perform sedentary as well as light work. Approximately 1,600 separate sedentary and light unskilled occupations can be identified in eight broad occupational categories, each occupation representing numerous jobs in the national economy. These jobs can be performed after a short demonstration or within 30 days, and do not require special skills or experience.

(b) The functional capacity to perform a wide or full range of light work represents substantial work capability compatible with making a work adjustment to substantial numbers of unskilled jobs and, thus, generally provides sufficient occupational mobility even for severely impaired individuals who are not of advanced age and have sufficient educational competences for unskilled work.

(c) However, the limitations in vocational adaptability represented by functional restriction to light work for individuals of advanced age who can no longer perform vocationally relevant past work and have a history of unskilled work experience, no work experience, or have skills that are not readily transferable to a significant range of skilled work that is within the individual's functional capacity, warrant a finding of disabled -- in the absence of education which provides for direct entry into skilled work. Ordinarily, even a high school education or more which was completed in the remote past will have little impact for effecting a vocational adjustment unless relevant work experience reflects use of such education.

(d) Given the same factors in paragraph (c) of this section regarding education and work experience, where age, though not advanced, is a factor which significantly limits vocational adaptability (i.e., closely approaching advanced age, 50-54) and an individual's vocational scope is further significantly limited by illiteracy or inability to communicate in English, a finding of disabled is warranted.

(e) The presence of acquired skills that are readily transferable to a significant range of skilled work within an individual's residual functional capacity would ordinarily warrant a finding of not disabled regardless of the adversity of age, or whether the individual's formal education is commensurate with his demonstrated skill level. The acquisition of work skills demonstrates the ability to perform work at the level of complexity demonstrated by the skill level attained regardless of the individual's formal educational attainments.

(f) To find transferability of skills to light work for individuals of advanced age who are closely approaching retirement age (age 60-64), there must be very little, if any, vocational adjustment required in terms of tools, work processes, work settings, or the industry.

(g) While illiteracy or the inability to communicate in English may significantly limit an individual's vocational scope, the primary work functions in the bulk of unskilled work relate to working with things (rather than with data or people) and in these work functions at the unskilled level, literacy or ability to communicate in English has the least significance. Similarly, the lack of relevant work experience

would have the least significance since the bulk of unskilled jobs require no qualifying work experience. The capability for light work represents substantial numbers of such jobs, which in turn represents substantial vocational scope for younger individuals (age 18-49) even if illiterate or unable to communicate in English.

TABLE NO. 2

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO LIGHT WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
202.01	Advanced Age	Limited or Less	Unskilled or None	DISABLED
202.02	Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills not transferable	DISABLED
202.03	Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
202.04	Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Unskilled or None	DISABLED
202.05	Advanced Age	High School Graduate or More --provides for direct entry into skilled work	Unskilled or None	NOT DISABLED
202.06	Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	DISABLED
202.07	Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
202.08	Advanced Age	High School Graduate or More --provides for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
202.09	Closely Approaching Advanced Age	Illiterate or unable to communicate in English	Unskilled or None	DISABLED

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO LIGHT WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
202.10	Closely Approaching Advanced Age	Limited or Less --At least literate and able to communicate in English	Unskilled or None	NOT DISABLED
202.11	Closely Approaching Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
202.12	Closely Approaching Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
202.13	Closely Approaching Advanced Age	High School Graduate or More	Unskilled or None	NOT DISABLED
202.14	Closely Approaching Advanced Age	High School Graduate or More	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
202.15	Closely Approaching Advanced Age	High School Graduate or More	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
202.16	Younger Individual	Illiterate or unable to communicate in English	Unskilled or None	NOT DISABLED
202.17	Younger Individual	Limited or Less --At least literate and able to communicate in English	Unskilled or None	NOT DISABLED

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO LIGHT WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S) .

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
202.18	Younger Individual	Limited or Less	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
202.19	Younger Individual	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
202.20	Younger Individual	High School Graduate or More	Unskilled or None	NOT DISABLED
202.21	Younger Individual	High School Graduate or More	Skilled or Semi-skilled —Skills not transferable	NOT DISABLED
202.22	Younger Individual	High School Graduate or More	Skilled or Semi-skilled --Skills transferable	NOT DISABLED

95

203.00 Maximum sustained work capability limited to medium work as a result of severe medically determinable impairment(s).

(a) The functional capacity to perform medium work as defined in § 416.902(b)(9)(iii) includes the functional capacity to perform sedentary, light, and medium work. Approximately 2,500 separate sedentary, light, and medium occupations can be identified, each occupation representing numerous jobs in the national economy which do not require skills or previous experience and which can be performed after a short demonstration or within 30 days.

(b) The functional capacity to perform medium work represents such substantial work capability at even the unskilled level that a finding of disabled is ordinarily not warranted in cases where a severely impaired individual retains the functional capacity to perform medium work. Even the adversity of advanced age (55 and over) and lack of skills may be offset by the substantial work capability represented by the functional capacity to perform medium work.

(c) However, for individuals of advanced age (55 and over) with no relevant work experience and a limited education or less, the combined adversities militate against making a vocational adjustment to even this substantial range of work and a finding of disabled is appropriate. Further, for individuals closely approaching retirement age (60-64) with a work history of unskilled work and with marginal education or less, a finding of disabled is appropriate.

TABLE NO. 3

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO MEDIUM WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
203.01	Closely Approaching Retirement Age	Marginal or None	Unskilled or None	DISABLED
203.02	Closely Approaching Retirement Age	Limited or Less	None	DISABLED
203.03	Closely Approaching Retirement Age	Limited	Unskilled	NOT DISABLED
203.04	Closely Approaching Retirement Age	Limited or Less	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.05	Closely Approaching Retirement Age	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
203.06	Closely Approaching Retirement Age	High School Graduate or More	Unskilled or None	NOT DISABLED
203.07	Closely Approaching Retirement Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.08	Closely Approaching Retirement Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills transferable	NOT DISABLED

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO MEDIUM WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
203.09	Closely Approaching Retirement Age	High School Graduate or More —provides for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.10	Advanced Age	Limited or Less	None	DISABLED
203.11	Advanced Age	Limited or Less	Unskilled	NOT DISABLED
203.12	Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.13	Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
203.14	Advanced Age	High School Graduate or More	Unskilled or None	NOT DISABLED
203.15	Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.16	Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
203.17	Advanced Age	High School Graduate or More --provides for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.18	Closely Approaching Advanced Age	Limited or Less	Unskilled or None	NOT DISABLED

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO MEDIUM WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
203.19	Closely Approaching Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.20	Closely Approaching Advanced Age	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
203.21	Closely Approaching Advanced Age	High School Graduate or More	Unskilled or None	NOT DISABLED
203.22	Closely Approaching Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.23	Closely Approaching Advanced Age	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
203.24	Closely Approaching Advanced Age	High School Graduate or More --provides for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.25	Younger Individual	Limited or Less	Unskilled or None	NOT DISABLED
203.26	Younger Individual	Limited or Less	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED

MAXIMUM SUSTAINED WORK CAPABILITY LIMITED TO MEDIUM WORK
AS A RESULT OF SEVERE MEDICALLY DETERMINABLE IMPAIRMENT(S)

RULE	AGE	EDUCATION	PREVIOUS WORK EXPERIENCE	DECISION
203.27	Younger Individual	Limited or Less	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
203.28	Younger Individual	High School Graduate or More	Unskilled or None	NOT DISABLED
203.29	Younger Individual	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED
203.30	Younger Individual	High School Graduate or More --does not provide for direct entry into skilled work	Skilled or Semi-skilled --Skills transferable	NOT DISABLED
203.31	Younger Individual	High School Graduate or More --provides for direct entry into skilled work	Skilled or Semi-skilled --Skills not transferable	NOT DISABLED

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204.00 Maximum sustained work capability limited to heavy work (or very heavy work) as a result of severe medically determinable impairment(s).

The residual functional capacity to perform heavy work as defined in § 416.902(b)(9)(iv), or very heavy work as defined in § 416.902(b)(9)(v), includes the functional capability for work at the lesser functional levels as well, and represents substantial work capability for jobs in the national economy at all skill and physical demand levels. Individuals who retain the functional capacity to perform heavy work (or very heavy work) ordinarily will not have a severe impairment or will be able to do their past work -- either of which would have already provided a basis for a decision of "not disabled" under § 416.902(a) or § 416.902(b), respectively. Environmental restrictions ordinarily would not significantly affect the range of work existing in the national economy for individuals with the physical capability for heavy work (or very heavy work). Thus, an impairment which does not preclude heavy work (or very heavy work) would not ordinarily be the primary reason for unemployment; and generally is sufficient for a finding of not disabled even though age, education, and skill level of prior work experience may be considered adverse.

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