

The Social Security Administration's Disability Decision Process: A Framework for Research, Second Interim Report

Gooloo S. Wunderlich and Dorothy P. Rice, Editors;
Committee to Review the Social Security Administration's Disability Decision Process Research,
Institute of Medicine

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The Social Security Administration's Disability Decision Process: A Framework for Research

Second Interim Report

Gooloo S. Wunderlich and Dorothy P. Rice, *Editors*

Committee to Review the Social Security Administration's Disability Decision Process
Research

Dorothy Rice, *Chair*

Division of Health Care Services

INSTITUTE OF MEDICINE

Committee on National Statistics

Commission on Behavioral and Social Sciences and Education

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This report has been reviewed by individuals chosen for their diverse perspectives and technical expertise, in accordance with procedures approved by the National Research Council's Report Review Committee. The purpose of this independent review is to provide candid and critical comments that will assist the authors and the National Academy of Sciences in making the published report as sound as possible and to ensure that the report meets institutional standards for objectivity, evidence, and responsiveness to the study charge. The contents of the review comments and draft manuscript remain confidential to protect the integrity of the deliberative process.

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While the individuals listed above have provided many constructive comments and suggestions, responsibility for the final content of this report rests solely with the authoring committee and the National Academy of Sciences.

Contents

1	INTRODUCTION	1
2	BACKGROUND	3
	Need for a Redesigned Process for Program Eligibility	3
	Disability Determination—Structure and Process	5
	Commissioner's Conclusions	9
3	A FRAMEWORK FOR RESEARCH IN THE DISABILITY DECISION PROCESS	11
	What Is the Nature and Extent of the Problem with the Disability Decision Process?	13
	What Alternative Solutions Might Address These Problems?	13
	Will a Proposed Decision Process Be Workable and Will It Alleviate the Problems?	14
4	SSA'S RESEARCH PLAN FOR A REDESIGNED DISABILITY DECISION PROCESS	15
	SSA's Research Plan	16
	Progress Toward the Framework for the Decision Process Research	17
5	CONCLUDING COMMENTS	35
	Recommendations	37
	REFERENCES	38
	APPENDIX: Review of the Social Security Administration's Disability Decision Process Research: Study Mandate	40
	ACRONYMS AND ABBREVIATIONS	41

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CONTENTS

viii

1

Introduction

During the past two decades, unprecedented growth has occurred in the Social Security Disability Insurance (SSDI) and the Supplemental Security Income (SSI) programs. At the same time, processing time for disability claims and appeals determinations has increased substantially.

The committee commends the Social Security Administration (SSA) for recognizing the need to reengineer its disability claims process, in response to the many complaints from citizens and Congressional concerns. As one part of the overall reengineering work, considerable effort has been devoted to developing a research agenda for a redesigned decision process that should result in better disability decisions and more efficient use of staff resources.

This report is the second in a series of short interim reports of the National Academy of Sciences' Committee to Review the SSA's Disability Decision Process Research. The first interim report reviewed and commented on the general features of the proposed survey design, data collection plans, and coverage and sampling for the Disability Evaluation Study (DES) as described in SSA's draft request for proposals (RFP).

This second report is limited to a preliminary review of SSA's research plan for developing a revised decision process to determine a person's disability. In that context, the report outlines a framework for a research design and reviews the general features and directions specified by SSA in the scope of work in the relevant RFPs for the conduct of the research. It identifies critical elements of a research design that are missing from SSA's current plans, and expresses serious concerns about these gaps. As appropriate, preliminary comments are made on the workplans developed by the organizations awarded the research contracts by SSA in September 1997. Further, the report comments on the research projects completed prior to the start of the present study, but which are part of SSA's redesign research plan.

In addition to reviewing the scope of work and workplans, the committee explored other relevant internal documents provided by SSA in response to requests for information. It also heard presentations from the staff of SSA on the work completed to date, and their plans to integrate the results of the research projects and the DES to develop a redesigned disability decision process. The committee believes that preliminary assessments of the adequacy of the research plan are needed at this time to guide SSA management in determining if the research

activity undertaken is adequate to conclude whether or not the proposed revisions in the decision process are feasible, practical, and can be implemented nationally. In addition, suggestions are offered for changes in priorities and improvements in the research projects now underway and others yet to be developed. The committee plans to examine and comment further on the adequacy of the entire research plan when it is completed, the results of the completed research, and on any subsequently initiated research for the redesign effort. The committee also plans to comment further on the final design, approach, content, and plans for analysis of the DES when these are developed by the survey contractor and when survey data become available.

2

Background.

NEED FOR A REDESIGNED PROCESS FOR PROGRAM ELIGIBILITY

The Social Security Disability Insurance (SSDI) program (Title II of the Social Security Act [the Act]) and the Supplemental Security Income (SSI) program (Title XVI of the Act) are the two largest federal programs providing cash benefits and medical assistance to blind and disabled persons. Title II is an insurance program providing payments for disability to persons based on their previous employment covered under the Social Security program. Title XVI is a means-tested income assistance program for the aged, blind, and disabled regardless of their prior participation in the labor force. It provides financial assistance to individuals who have limited income and resources regardless of their previous work history. The definition of disability and the decision process for assessing disability are the same for both programs.

The Social Security Act defines disability (for adults) 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 which has lasted or expected to last for a continuous period of not less than 12 months..." (Section 223 [d][1]). Amendments to the Act in 1967 further specified that an individual's physical and mental impairment(s) must be "... 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, 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" (Section 223 and 1614 of the Act).

Although the existence of a medically determinable impairment is a necessary condition, it is not a sufficient condition for receipt of benefits. The definition makes clear that this program deals with *work disability*. The applicant is considered to be "disabled" (as defined by the Act) not just because of the existence of a medical impairment, but because the impairment precludes gainful work (Hu, et al., 1997). However, determination of disability is a complex process, inescapably involving some interpretive judgments about capacity for work (GAO, 1994). Therefore, it is impossible to know precisely the extent of imperfection in the determination of disability, as evidenced by the lack of agreement observed in an examination of rater reliability as measured by the variations within and between states in the allowance rates by examiners (Gallicchio and Bye, 1980).

Over the years statutory amendments and judicial construction of eligibility criteria have extended the scope of the program. Many other factors have also contributed to the growth of the programs: incentives to apply for benefits affected by changes in the structure of alternative public and private income support programs for persons with disabilities, economic conditions, structural shifts in the labor market, and changes in the composition and characteristics of working age population (Lahiri, et al., 1995; Hu, et al., 1997). At the same time SSA has faced reductions in its administrative resources. As a result SSA has been faced with large workload increases in the disability programs and consequent backlogs in claims and appeals. These increases, however, have not been matched by increases in personnel. A study conducted by SSA (1993) of the disability claim and appeal processes found that the processing time for a claim from the initial inquiry through receiving an initial claims decision notice can take up to 155 days, and through receipt of hearing decision notice, can take as long as 550 days. However, the actual time during this period that employees devote to working directly on a claim was found to be 13 hours up to the initial decision notice and 32 hours through receipt of hearing decision notice. Delays in the receipt of required medical evidence at each level and consultations, the movement of paper, and the wait at each workstation because of missing information as the case is developed, account for a considerable portion of the claims processing time (SSA, 1994a). Increases in litigation combined with major reductions in staff resources have also contributed to the claims backlog.

Errors in making denial decisions by the state disability determination service (DDS) adjudicators, backlogs in appeals, and inconsistencies in decisions reached by the DDS adjudicators and the administrative law judges (ALJs) are also a matter of concern (DHHS, 1982; GAO, 1995, 1997b). The decision-making standards and procedures used by the ALJs are not always the same as those followed by the DDS adjudicators. The inconsistent decisions result mostly from differences in the assessment of residual functional capacity. The number of decisions being appealed for reconsideration and then approved at the higher level has increased. Over time the process has become lengthy, fragmented, confusing, and burdened by complex policies applied at different adjudicatory levels. It is hardly surprising that many have complained that the Social Security claims process takes too long, is confusing, complicated, and fragmented, resulting in inconsistent decisions often based on subjective criteria (GAO, 1995, 1997a; SSA, 1994a).

In the early 1990s, the National Performance Review identified improvement of the Social Security Administration's (SSA) disability process as one of the key service initiatives for the federal government. SSA realized that significant improvements could not be achieved without fundamentally restructuring the entire claims process. In view of these numerous concerns and the agency's recognition of the need to improve the quality of the service in the disability claims process, SSA decided to develop an ambitious long-term strategy for reengineering "... the disability determination process that would be simpler than the existing one, deliver significantly improved service to the public, remain neutral with respect to program dollar outlays, and will be more efficient to administer" (SSA, 1994a, p. 46).

As outlined by SSA (1994a), the basic goals of the reengineered claims process are that it should be:

- user-friendly to the claimant and those who assist them;
- prompt, that is, decisions are made quickly;
- accurate, that is, the correct decision is made the first time;
- efficient; and
- conducted in a work environment satisfying for employees.

DISABILITY DETERMINATION-STRUCTURE AND PROCESS

Disability Claims Process

The Social Security disability claims process¹ starts at the state disability determination service where most disability decisions are made for SSA at the initial and reconsideration levels. Briefly, the claims process proceeds through a series of four stages or levels: (1) applications for benefits and preliminary screening are made at the SSA district offices; (2) disability determinations are made in state DDS agencies using federal regulations and SSA guidelines and procedures; (3) claimants whose applications are denied can have their claims reconsidered at the DDS level; and (4) if benefits are denied during the reconsideration, the claimant may request a hearing before an ALJ at the SSA. Further appeals options include a request for review of the denial decision by SSA's Appeals Council, and then review in the federal courts.

SSA envisions that the reengineered claims process will make efficient use of technology, eliminate fragmentation and duplication, and promote flexible use of resources. Claimants will be given understandable program information and a range of choices for filing a claim and interacting with SSA. They will deal with one contact point and will have the right to a personal interview at each level of the process. Also, the number of levels in the new claims process prior to Appeals Council review will be consolidated from four to two, and the issues for which appeals will be allowed will be more focused. Finally, if the claim is approved, the initiation of payment will be streamlined. The current and the proposed claims processes are illustrated in [Figure 2-1](#).

Successful reengineering depends on a number of key initiatives of a new claims process. SSA's original plan depended on a large number of initiatives which together were intended to make the reengineered claims process function efficiently. Since then the agency has reassessed many of the reengineering initiatives and developed a revised plan that focuses on eight major areas for priority attention. Four of these initiatives are testing efforts (single decisionmaker, adjudication officer, full process model, and disability claims manager), and four are developmental activities that SSA calls "critical enablers" (systems support, process unification, simplified decision process, and quality assurance) (SSA, 1998b). Thus the redesign of the disability *decision* process is one, but only one, of the process changes proposed by SSA to achieve reengineering of the disability *claims* process.

¹ For a more detailed description of SSA's Claims Process and its plans for reengineering, the reader is referred to *Plan for a New Disability Claim Process* (SSA, September 1994b).

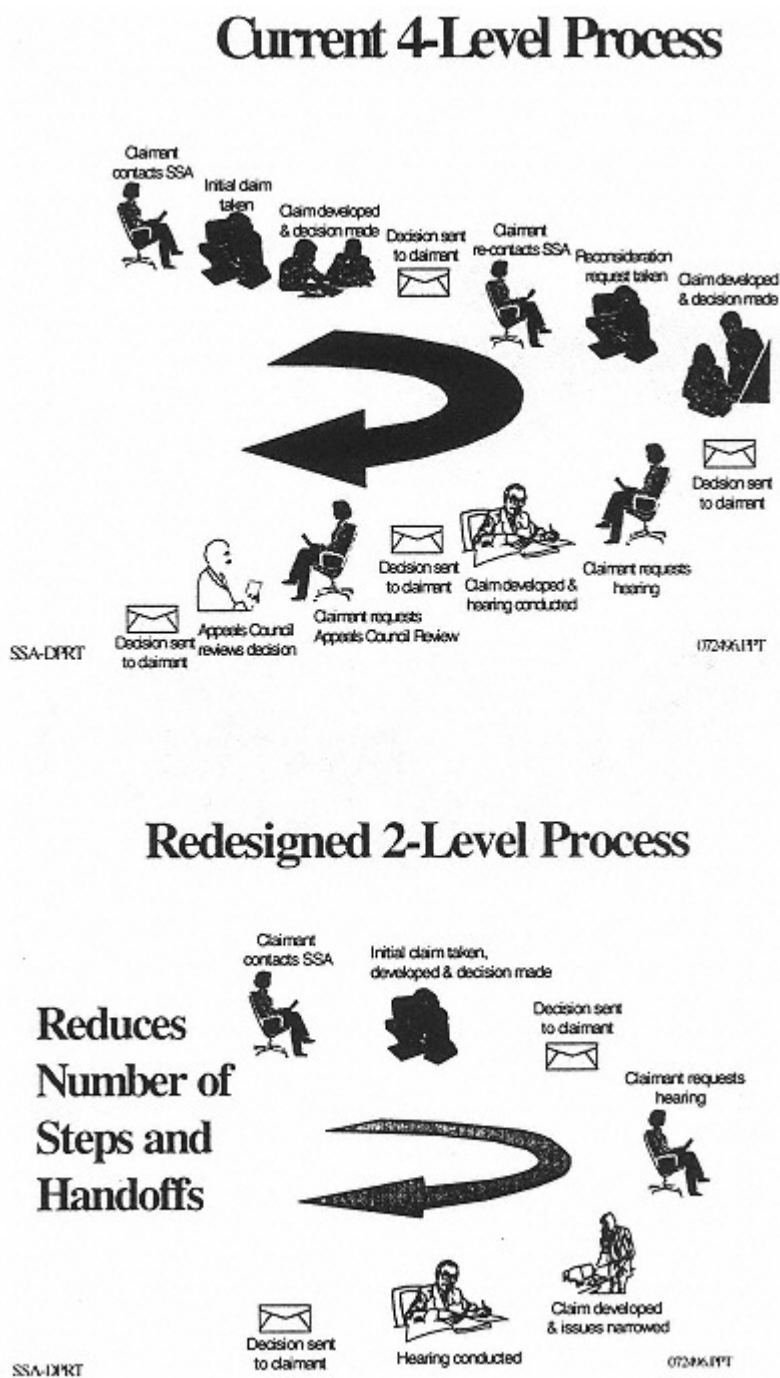


Figure 2-1 The Social Security Administration's current and proposed disability claims process. SOURCE: Adapted from Social Security Administration, 1994a.

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Evaluation of Eligibility for Disability Benefits

The disability decision process has been referred to as a gatekeeping function for the SSDI and SSI programs (Lahiri, et al., 1995; Hu, et al., 1997). The statute defines disability but does not define the standards for evaluating disability claims. The process for evaluating disability claims is specified in SSA's implementing regulations (20 Code of Federal Regulation, parts 404 and 416, subparts P and I) and in written guidelines that describe a series of sequential decision points and criteria for determining whether or not a claimant meets the statutory definition of disability.

The purpose of developing the sequential decision process was to provide an operationally efficient definition of disability with a degree of objectivity that can be replicated with uniformity throughout the country. The objective was to adjudicate claims as consistently, expeditiously, and cost effectively as possible. As stated earlier in the chapter, however, over the years this decision process has become complex, inconsistent, and difficult for the claimant to understand.

The Current Decision Process for Initial Claims.

The disability decision process for initial claims involves five sequential decision steps (SSA, 1994a). SSA's field offices and the state disability determination service make the initial decisions on applications for disability benefits.

1. In the first step, or point of decision, the SSA field office reviews the application and screens out claimants who are engaged in substantial gainful activity (SGA).
2. If the claimant is not engaged in SGA, step two determines if the claimant has a medically determinable severe physical or mental impairment. The regulations define severe impairment as one that significantly limits a person's physical or mental ability to do basic work activities.
3. During the third decision step, the documented medical evidence is assessed against the medical criteria to determine if the impairment meets or equals the degree of severity specified in SSA's "listings of impairments." A claimant whose impairment(s) meets or equals those found in the listings is allowed benefits at this stage on the basis of the medical criteria.
4. In the fourth decision step, claimants who have impairments that are severe, but not severe enough to meet or equal those in the listings, are evaluated to determine if the person has residual functional capacity (RFC) to perform past relevant work. Assessment of the RFC requires consideration of both exertional and nonexertional impairments. If a claimant is determined to be capable of performing past relevant work, the claim is denied.
5. The fifth and final decision step considers the claimant's RFC in conjunction with his or her age, education, training, and work experience, commonly referred to as vocational factors, to determine if the person can perform other work that exists in significant numbers in the national economy.

Proposed Redesigned Decision Process

As stated above, the redesign of the disability decision process is only one of the many process changes proposed in the reengineered disability claims process. SSA has stated that such a redesigned decision process should:

- be simple to administer;
- facilitate consistent application of rules at each decision level;
- provide accurate and timely decisions; and
- be perceived by the public as straightforward, understandable, and fair.

SSA aims "... to focus the new decision-making approach on the functional consequences of an individual's medically determinable impairment(s)" (SSA, 1994a, p. 21). According to SSA, in the proposed redesigned disability decision process the presence of a medically determinable impairment will remain a necessary requirement for eligibility, as required by the current law. SSA, however, proposes to focus directly on developing new ways to assess the applicant's functional ability or inability to work as a consequence of the medical impairment and to rely on these standardized functional measures to reach decisions. Medical and technological advances and societal perceptions about work capacity of a person with disabilities appear to support a shift in emphasis from the current focus on disease conditions and medical impairments to that of functional inability. For example, people with disabilities are able to function with personal assistants and assistive devices.

The redesigned disability decision process, as conceived by SSA, will involve four sequential steps for deciding if a claimant meets the definition of disability as defined in the Act.

1. The first step is the same as in the current process. It involves screening out applicants who are engaged in substantial gainful activity.
2. If the claimant is not engaged in SGA, the second step evaluates if the applicant has a documented medically determinable physical or mental impairment. Under the proposed revision, however, a threshold "severity" requirement will no longer be needed.
3. The third step assesses if the person's impairment is included in an index of disabling impairments (yet to be developed). The index will replace the current listings of impairments. It will contain a short list of impairments of such severity that, when documented, they can be presumed to result in loss of the person's functional ability to perform substantial gainful activity without the need to further measure the individual's functional capacity and without reference to the person's age, education, and previous work experience.
4. If the claimant's medical impairment(s) is not in the index, the fourth and final decision step will evaluate if the individual has the functional ability to perform any substantial gainful activity. These individualized assessments of functional ability will also take into consideration the effects of the vocational factors in determining the demands of the individual's previous work. Functional assessment instruments will be designed to measure an individual's abilities to perform a baseline of occupational demands that include the primary dimensions

of work and that exist in significant numbers in the national economy (SSA, 1994a).

The final decision step of the proposed decision process subsumes both steps four and five of the current decision process. According to SSA, this step reflects the most significant change from the current decision process. SSA has assumed that under this proposed decision process, the majority of claimants will be evaluated at this point using a standardized approach to measuring functional ability to perform work. Conceptually, standardized measures of functional ability that are universally acceptable would facilitate consistent decisions regardless of the professional training of the decisionmakers in the decision process.

The sequential disability decision process as it exists today and the proposed new process are illustrated in [Figure 2-2](#).

COMMISSIONER'S CONCLUSIONS

In 1994 the Commissioner of SSA accepted the proposal for a plan to reengineer the disability claims process with the understanding that redesign of the decision process would require extensive research and testing to determine whether it could be implemented. She stated that "Because those aspects of decisional methodology [sic] that deal with functional assessment, baseline of work, and the evaluation of age require much study and deliberation with experts and consumers, we are making no conclusions about their ultimate place in the disability process." (SSA, 1994a, p. *i*).

The proposed reengineering of the claims process is in various stages of implementation. In response to the commissioner's directive, however, SSA has not yet implemented the disability decision process element of their total reengineering proposal. The agency is now engaged in a multiyear research effort to develop and test the feasibility, validity, reliability, and practicality of the redesigned disability determination process prior to any decision on its national implementation. SSA has developed what it refers to as the "research plan" for the disability decision process and a timeline for its completion (SSA, 1996, 1997b).

The agency requested the National Academy of Sciences to conduct an independent and objective review of, and make recommendations on, its current and proposed research that relates to the proposed redesigned disability decision process, including all aspects of the complex, multiyear Disability Evaluation Study. (See the Appendix for the study mandate.)

This second interim report is limited to a preliminary review of SSA's research plan for developing a new disability decision process and the timeline for its completion.

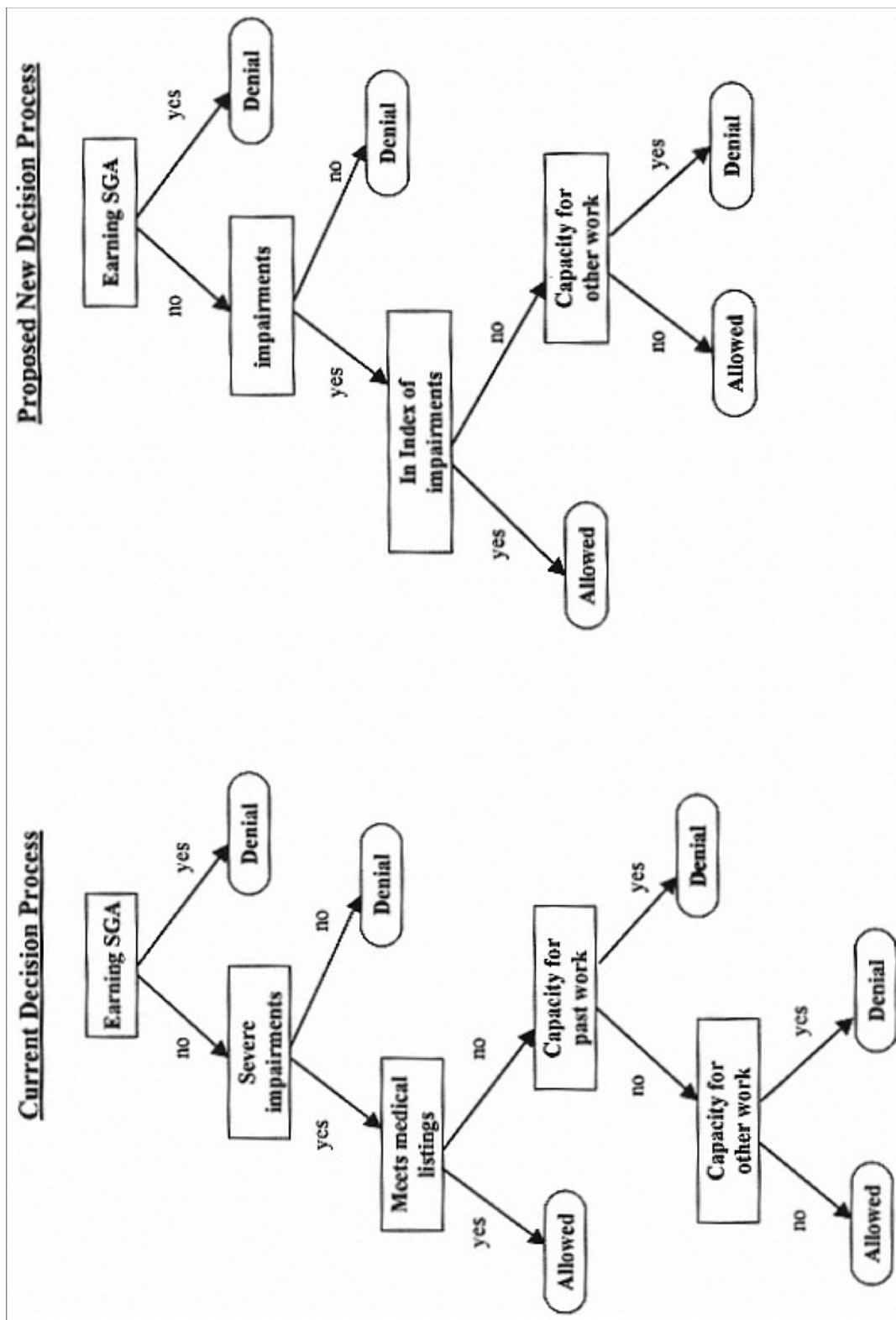


Figure 2-2 The Social Security Administration's current and proposed new disability decision process. SOURCE: Adapted from Hu, et al., 1997.

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3

A Framework for Research on the Disability Decision Process

Too many discussions of Social Security reform start with a set of proposals before a framework for assessing alternatives has been established. Any effort to understand why the Social Security system is the way it is, and to develop thoughtful judgments regarding potential reforms, can benefit greatly by starting from a set of principles. Principles provide a set of criteria against which particular features of a program or proposed reforms can be judged as “better” or “worse”, “well designed” or poorly designed.” Quite simply, if any system is to be made better—however vague that goal may at first appear—there must be some standards against which the goal can be measured. In many cases, there is no simple answer, as different principles compete with each other and require compromise. Nonetheless, a set of principles provides a framework for thinking about the issue and allows us to honestly assess the inevitable trade-off in a rational and rigorous way.

(Steuerle and Bakija, 1997, p. 38)

The committee endorses the Social Security Administration's (SSA) efforts to undertake a variety of research activities related to the revision of the disability decision process. Nevertheless, research planned and currently being conducted appears to be somewhat disjointed. The committee suggests the need for an overall framework for a research plan.

Program evaluation research begins with an initial identification of a problem followed by one or more policy-related questions and a series of activities to answer the questions. Defining a problem often is, at least in part, a political process the outcomes of which may not totally flow from an assessment of available information (Berk and Rossi, 1990). Proposals for change in programs could arise because of perceived dissatisfaction with the current state of affairs; because the program may not be performing as it was meant to, costs for the program may have spiraled upwards, or the size of the program may have increased. Any or all of these complaints can lead to a decision that a problem exists.

The following policy issues or questions need to be addressed in the context of the problems associated with SSA's research design for redesigning the disability decision process:

- What are the goals and purposes of the research?
- What are the nature, extent, and potential etiologies of the problems with the current disability decision process?
- Based on the problem analysis, what options might be developed to alleviate the problems?
- Will a proposed redesigned disability decision process be workable?
- Will a proposed redesigned decision process alleviate the current problems; might it create other problems?

These and other questions provide an initial conceptual framework of issues and methods for a research plan to assess a proposed redesigned disability decision process as a workable solution to current problems (see [Table 3-1](#)).

Table 3-1 Issues and Methods To Be Addressed in a Framework for a Research Plan for a New Disability Decision Process

Question	Research Steps	Research Methods
1. What is the nature and extent of the problem with the disability decision process?	Needs assessment research	<ul style="list-style-type: none"> • Special surveys and analytic studies • Assembly of existing internal and external data • Satisfaction surveys • Analysis of data from studies using established evaluative criteria • Focus groups
2. What alternative solutions might address these problems?	Identify alternative options Small-scale testing Field evaluation	<ul style="list-style-type: none"> • Review and analysis of research literature • Specially targeted research • Laboratory research and pilot studies and demonstrations • Field tests • Focus groups • Process engineering assessments • National surveys
3. Will the proposed disability decision process be workable, and will it alleviate the problems?	Program evaluation and transition to implementation	<ul style="list-style-type: none"> • Clinical trials • Simulation • Evaluation studies of the proposed decision process using the established criteria • Cost-effectiveness studies • Tests of the new decision process • in selected sites

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As described in the previous chapter, SSA's goal for the research is to develop a new decision process that is simple to administer; that facilitates consistent application of rules at each decision level; that provides accurate and timely decisions; and that the public perceives as straightforward, understandable, and fair. In addition, SSA expects the new decision-making approach to focus the decision on the functional consequences of an individual's medically determinable impairment(s) (SSA, 1994a).

The remainder of this chapter briefly explains what is entailed in addressing each of the questions outlined in the above table.

WHAT IS THE NATURE AND EXTENT OF THE PROBLEM WITH THE DISABILITY DECISION PROCESS?

This question calls for what is referred to in social science research as "needs assessment." Such assessment of the need for redesigning the disability decision process also helps to define the problems and in turn leads to the identification of goals. Needs assessment research should be undertaken at the outset as soon as problems have been identified. Answers are needed regarding the nature, size, and distribution of the problems with the disability decision process, and the factors contributing to the problems. An adequate design of a public program, such as SSA's proposed disability decision process, and projection of its effectiveness and efficiency require as a start, solid information on the nature and extent of the problems, both perceived and real, with the current program. Research efforts involved in this step can be relatively inexpensive and simple, involving collating and assessing existing data from government reports, published and unpublished studies, special analyses, internally generated data, policy papers, results of satisfaction surveys and other selected data gathering efforts, and other documents. On the other hand, if adequate information is not available and the issue is an important one, large-scale surveys may need to be conducted and the data from the surveys analyzed. That can be expensive and lengthy (Raizen and Rossi, 1981).

Complaints, whether ultimately substantiated or not, often suggest that a program should be evaluated and improved. However, in order to assess the validity of the complaints, objective evaluative criteria should be established a priori, so that the various complaints about the program can be evaluated and the program's performance can be measured.

To determine if a redesigned disability decision process would lead to improvements, one or more studies need to be conducted to provide information on how the current program is working relative to the established criteria. Analysis of data from such studies would identify the gaps between performance and the goals of the program.

WHAT ALTERNATIVE SOLUTIONS MIGHT ADDRESS THESE PROBLEMS?

Answers to this question depend largely on how much is understood about the problems and what variables can be changed to rectify them. Review and analysis of relevant existing literature and targeted research on the various components of the program should be undertaken to understand enough about the current program and its problems to identify appropriate alternative solutions. In general, creative energies should be aimed at developing a range of

potential options or solutions for the problems identified. Given resource and time constraints, however, priorities need to be established. Moving from identifying alternative solutions or prototypes to proposing viable solutions requires iterative small-scale testing using available knowledge, pilot testing the prototypes, and conducting simulation studies prior to refining the prototype decision process so that it will work well with real subjects.

WILL A PROPOSED REDESIGNED DECISION PROCESS BE WORKABLE AND WILL IT ALLEVIATE THE PROBLEMS?

Once a viable prototype is developed to replace the existing disability decision process, two questions need to be answered: (1) is the prototype workable in the real world? and (2) will it alleviate the problems identified with the current process? Following successful pilot testing of the prototype, the next step involves field evaluation. Such evaluation includes field tests and national surveys that enables the agency to make needed changes and to answer questions, such as what is the best way to decide if a person is sufficiently “disabled” to be eligible for benefits. Randomized controlled experiments and clinical trials in addition to field evaluation sometimes serve a useful purpose.

Assessing if a proposed prototype can be implemented is only one part of the solution. A necessary step is to examine if a proposed redesigned decision process will produce the improvements it is meant to deliver and at what cost. Research methods that are often used include simulation, modeling, and analyses of data using information from small-scale tests, field evaluation, program evaluation, and surveys conducted in-house or by other organizations, such as the Bureau of the Census and the National Center for Health Statistics. Prospective cost-effectiveness and cost-benefit studies to measure efficiency may seem ideal intellectually, but often they are impractical in terms of costs and timeliness. Practical approaches must take into account constraints of time and available resources. Process engineering research with the aim to control costs of the proposed decision process may also be useful.

At this stage of the research the proposed prototype should be tested in a real life environment and evaluated relative to the same criteria that were initially applied to assessment of the current disability decision process. The findings then should be compared with those obtained from the existing program. The various prototypes tested will have different strengths and weaknesses, and the selection of the prototype for implementation will involve, at least to some extent, political programmatic decisions concerning priorities and budget.

The next chapter reviews, in the context of the framework for a research design outlined in [Table 3-1](#), the research plan developed by SSA, the individual projects under this plan that are completed and underway, the proposed sequence and timeline for completion of the individual projects, and the implications of each project for the overall plan. The chapter also identifies the gaps to be filled with proposed additional research.

4

SSA's Research Plan for the Redesigned Disability Decision Process

The previous chapter presented a general framework for the disability decision process research. This chapter reviews the Social Security Administration's (SSA) research plan in the context of this framework and identifies gaps in the research plan as the committee sees them at this early stage of its study. The committee hopes that its comments will serve to guide SSA as it proceeds with its research to develop, and to determine the feasibility of the various elements of the proposed new disability decision process.

The goal of the redesign research should drive the research plan. According to SSA, "the goal of this research will be to devise a more efficient and more accurate method for making timely determinations of disability for Social Security claimants" (SSA, 1996). The new disability decision process, as envisioned by SSA, will assess a person's functional ability once, relying on objective, standardized, functional assessment instruments. SSA believes that focusing decisions on the functional consequences of a person's medical impairments will permit physicians and others who provide medical evidence, and decisionmakers to use a consistent frame of reference for determining disability, regardless of the diagnosis. SSA assumes that such a focus will reduce the need for developing voluminous medical records (SSA, 1994a).

As described earlier in the report, under the proposed disability decision process, decisionmakers will consider if a person has a medically determinable impairment(s), but will no longer impose a threshold "severity" requirement. They will rely instead on a new "Index of Disabling Impairments," which has not yet been developed. The index will replace the current listings of medical impairments. Presumably, "...it will only consist of descriptions of specific impairments and medical findings that are used to substantiate the existence and severity of the particular disease entity" (SSA, 1994a, p. 23). The index will describe quickly and easily impairments that are so severely debilitating that, when appropriately documented, they will be equal to functional inability to perform substantial gainful activity (SGA) regardless of the person's age, education, and work experience. SSA, therefore, believes that it will no longer need the concept of "medical equivalence" that is in the current decision process, thus eliminating one decision step in the current sequential evaluation process in relation to the index. If the claimant is not considered eligible for benefits based on the index, then the statutory requirements of age,

education, and work experience will be considered when deciding the claimant's ability or inability to engage in substantial gainful activity.

SSA hopes to develop standardized functional assessment instruments that accurately measure a person's functional abilities and are universally accepted by all concerned parties. These instruments would measure an individual's abilities to perform a baseline of occupational demands. The agency further plans to develop a new standard to describe basic physical and mental demands of a baseline of work (i.e., work-related functions) that represent SGA and that exist in significant numbers in the national economy.

SSA'S RESEARCH PLAN

The research plan developed in 1995 by SSA has three components.²

1. Information gathering (comprehensive review and analysis of existing information) on:
 - functional assessment instruments,
 - occupational classification systems,
 - disability determination processes used in other disability programs in the United States and other countries, and
 - the effects of age, education, and work experience (vocational factors) of the applicant.
2. Integration, synthesis, and development of a prototype for a new disability decision process:
 - analysis and evaluation of the literature reviews undertaken in the first component, and
 - development of prototype(s).
3. Testing, analyzing, and refining the prototype:
 - laboratory research and other small-scale testing; and
 - the Disability Evaluation Study: to estimate the size and characteristics of the population eligible for disability benefits, determine factors permitting them to work, and assess future changes in the prevalence of disability; and also to serve as one of the evaluation mechanisms for the decision process prototype(s).

Work on the first two components of the research plan is underway. Some information-gathering activities in the first component have been completed through specific contracted research. The remainder of the activity in the first component also is being conducted through contracts. Most of these latter contracts were negotiated at the end of fiscal year 1997.

² SSA's research plan, along with a timeline for actions and completion dates, was published in the *Federal Register* in August 1996 and an update of the plan was published in November 1997 (SSA, 1996, 1997b).

SSA has contracted a series of projects to review and analyze research and literature done to date in the following subject areas:

- Functional assessment instruments (completed in 1996-contract with Virginia Commonwealth University [VCU]),
- Occupational classification systems (completed in 1996-contract with American Institutes for Research [AIR]),
- Disability determination processes used in other disability programs (contract awarded to Westat in September 1997 for completion in five months),
- Effects of vocational factors (Interagency Agreement with Library of Congress negotiated in September 1997 for completion in one year).

Work on the second and parts of the third component has begun with the award of a task-order-type contract to AIR at the end of fiscal year 1997. The purpose of this contract is to synthesize and integrate the results of the literature review contracts and the Disability Evaluation Study (DES); to develop, test, evaluate, and refine alternative prototypes for a redesigned disability decision process; and to undertake additional research as yet unspecified. Additional work in the research and development of the decision process also may be undertaken in subsequent task orders under this umbrella contract. The number of task orders to be performed by the contractor and the duration of each will be determined by SSA.

The committee reviewed the preliminary design of the DES and issued a report in July 1997. The DES is part of the third component of the research plan. Many of the recommendations in the committee's report have been incorporated in the request for proposals issued by SSA on January 15, 1998 (SSA, 1998a). SSA anticipates that a contract for the DES will be awarded in the summer of 1998.

PROGRESS TOWARD THE FRAMEWORK FOR THE DECISION PROCESS RESEARCH

The previous chapter outlined an initial conceptual framework of issues, research steps and methods for a research plan or design to develop and assess the proposed decision process as a workable solution to current problems. What follows is a preliminary review of SSA's research plan and the individual projects within that plan with reference to each of the research steps identified in the framework outlined in [Table 3-1](#).

SSA's research plan comprises projects that are oriented to developing and testing the functional assessment instruments in the disability decision process, exploring the effect of vocational factors on decisions, and developing a prototype for a revised disability decision process. Ultimately, however, the questions that need to be answered include: Will the projects together answer the questions that need to be answered? Is the approach adequate? Is the time frame for the completion of the research agenda sufficient? Are there critical gaps in the research that need to be filled? What problems will be faced if the sequencing of the various projects is not synchronized? Finally, will the research answer the basic concern expressed by the Commissioner in 1994—can the proposed revisions of the disability decision process be implemented?

Needs Assessment Research

As discussed in [Chapter 3](#), needs assessment research takes place early in any discussion of a major change to improve an ongoing program, such as the disability decision process, in order to understand the nature and extent of problems with the current process. It is an important early step for planning a research strategy. Assembling and analyzing existing information using administrative and statistical data, internal agency data and other documents, and results from special small studies and internal and external surveys to examine the relative roles of the factors associated with the problems and their concentrations, helps to understand the problems associated with the current disability decision process. It should also help define the goals to be achieved.

Supplementing the knowledge gained from these activities with focus group discussions involving claimants and internal and external stakeholders, as well as satisfaction surveys is sometimes useful. Early in the reengineering effort, SSA held a series of focus groups throughout the country to obtain input from the general public and the claimant population. The agency staff also conducted fact-finding visits and interviews with members of the disability community. Similar meetings and surveys should be conducted with regard to the redesign of the decision process as it is being developed and after a prototype has been developed, but prior to implementation.

If the purposes of redesigning the disability decision process are as stated earlier in the report, the research design calls for comparative judgments. It presumes analysis of baseline information from the current decision process to assess the effectiveness, or lack thereof, of the current decision process and compare it with similar analysis of a new decision process. As described in [Chapter 2](#), during the past several years, SSA has conducted some baseline studies with respect to the current *claims* process. The committee has reviewed the available analysis of the amount of time and staff investment in processing disability claims, the problems associated with processing claims in a uniform and timely manner, as well as the nature and extent of the inconsistencies of decisions between the disability determination service (DDS) and the administrative law judges (ALJ). Early in the reengineering effort SSA also developed measurable criteria for evaluating if the reengineered claims process will achieve its stated objectives of being user-friendly, prompt, accurate, efficient, and satisfying for employees (SSA, 1994b).

However, based on the information provided by SSA, the committee assumes that the agency has not conducted such baseline analysis with predetermined criteria for evaluating the components of the sequential disability decision process leading to the decision to its redesign. Moreover, such analysis does not appear to have a place in the current research plan. SSA's current research approach focuses mostly on the new decision process, therefore fails to build in tests that may be critical to answering the comparative questions and, ultimately, to the decision whether or not to adopt a new decision process.

Evaluative Criteria.

In order to assess if the decision process, current or proposed, is effective and efficient, objective measurable criteria need to be established against which the current disability decision process can be assessed. These criteria should reflect the purposes or objectives of the decision

process. Studies should be conducted on the existing process and data analyzed in the context of the established criteria in order to identify the nature of the gaps between what the program is supposed to achieve and what its actual performance is. Without these research steps and analysis, there is no objective way to conclude if the revised process is more effective and more efficient than the existing one.

For example, SSA plans to replace the current listings of medical impairments with an index of disabling impairments. SSA has a conceptual notion of what this index should be, but no list has been developed and tested to date. Admittedly the current listings have expanded beyond their original purpose. Originally the listings included a short list of readily identifiable disabling impairments for the purpose of being a simple screener. Since then they have become lengthy and complex, requiring specialized medical evidence. In the mid-1980s, mental impairments were added to the listings, many of which take into consideration functional consequences of an impairment. The committee understands and supports the need to revise and update the listings to restore them closer to their original purpose. However, the committee is not aware of any attempt to evaluate the currency and consistency of the listings, or at least those groups of conditions that account for a significant proportion of the disability rolls. SSA appears to have made the decision to replace the current listings with an index without any attempt to first evaluate them and use the findings to update the listings or to guide in developing a new index. SSA should specify the desired levels of specificity and sensitivity and evaluate the current listings against those standards to serve as a baseline for creating the new index.

The index is supposed to be simple enough so that lay persons will be able to understand what is required to demonstrate a disabling impairment in the index. To the extent possible, the medical findings included in the index will be in nontechnical language. Such a major change for determining a severely disabling medical impairment has yet to be developed, tested, and refined. Although conceptually appealing, the committee questions if such an index can be developed, tested, and implemented with confidence on a national level within the timeframe set by SSA.

The committee supports the conclusion of the Disability Policy Panel of the National Academy of Social Insurance (Mashaw and Reno, 1996) to give high priority to research related to the medical listings as well as to evaluate the consistency of the presumptions underlying the medical listings for different body systems. *SSA should conduct the necessary research, prior to implementing the new index, to determine: (1) whether or not the current listings satisfy the agency's goals for specificity and sensitivity, (2) whether or not these goals are satisfied consistently across the listings for the different body groups or conditions, and (3) evaluate the options to correct the problems detected by these evaluations, as it develops any new list of medical impairments.*

Throughout the documents reviewed by the committee relating to the redesign research, including the scope of work for the research contracts and in presentations before the committee, SSA has recognized the need to test the new disability decision process by applying standards of validity, reliability, sensitivity, specificity, credibility, and flexibility. In addition, the stated objectives of the redesign also include requirements such as simplicity in administration, consistency, accuracy, timeliness, equity of decisions at all levels, and fairness. However, to the committee's knowledge no measurement criteria have been established to test the current and the redesigned process along any of these lines.

Measurement is the process of linking abstract concepts to empirical indicators (Carmines and Zeller, 1979). Various terms are commonly used to describe measurement. For instance, to determine the extent to which a particular empirical indicator(s) represents a given concept, one can

examine the reliability of the concept, that is, the reproducibility of a decision for each case within and/or across decisionmakers. But a process or indicator needs to be more than reliable if it is to provide accurate results. It must also be valid. Although the terms reliability and validity are often used together, they are not synonymous. A decision may be reliable but it may not be valid. Both reliability and validity reflect matters of degree. Validity represents a set of criteria by which the credibility of research may be judged. For example, it measures the degree of agreement between the disability decision and actual fact of disability. Moreover, validity has several meanings. These include construct validity; content validity; criterion validity, which includes concurrent validity and predictive validity; and study validity, which includes internal and external validity (Last, 1983). The definitions among the disciplines of logic, epidemiology, social science, and statistics do not always correspond.

A measure of the sensitivity of a test is the proportion of truly “disabled” persons that are ruled “disabled” by the test, and a measure of specificity is the proportion of truly “nondisabled” that are ruled “nondisabled” by that test. If it is assumed that operations can be defined to measure empirically the variables of sensitivity and specificity, these variables can be considered jointly in the context of the relative operating characteristic (ROC). Now used in several diagnostic contexts, the ROC plots sensitivity against specificity to show the trade-offs of these two variables as decision thresholds (and cutpoints on component scores) vary (Swets, 1988, 1992).

Effectiveness measures the extent to which the decision process is achieving its goals and purposes (Berk and Rossi, 1990), and the concept of effectiveness must always address the issue of, “compared to what?” regardless of whether it is marginal effectiveness, relative effectiveness, or cost-effectiveness. Finally, efficiency measures the results of a process in terms of resources expended and time.

The committee notes that both the fields of science and law pay unusual attention to the definition of terms. When the two fields intersect, it is particularly important to be specific about the terms used. For example, although the word “disability” is used by SSA, the actual phenomenon focuses on an attribute more narrowly defined than the inability to perform the usual activities of daily living. It refers to the inability to engage in substantial gainful activity (SGA) because of a medically determinable physical or mental impairment leading to death or expected to last for at least 12 continuous months. Such distinctions are key to SSA's use of terms such as “validity,” and here the legal use of the term is important to guide the scientific criteria. The appropriate construct to use in judging whether the current or the new decision process achieves its goals must take into account the legal language.

The committee, however, recognizes that the actual fact of disability may be unobservable. For example, the number of persons with disabilities under the Social Security definition will vary as a result of judicial interpretations. Each aspect of the law is subject to differing interpretations and judgments. Problems arise at each step of the sequential decision process, whether one is determining if a person has an impairment that will result in death or that is expected to last at least 12 months or, more crucially, whether by reason of that impairment a person cannot engage in SGA. The difficulty of making such a decision, however, is not the issue. Rather there is no single true answer to the question of whether a person with that impairment should be expected to engage in SGA. Simply put, a “gold standard” does not exist. Therefore, it is necessary to substitute some criterion or target and assess how well actual determinations are meeting this target. Whatever SSA chooses as a criterion or target also must be disseminated to stakeholders and decisionmakers as soon as possible, along with a plan for

validity assessment. Only with such openness will the validity assessments be accepted when they become available.

The brief discussion of measurement terms and issues clearly demonstrates the need for SSA to specify early in the redesign effort what it means by the terms validity, reliability, sensitivity, specificity, credibility, flexibility, and all the other related terms that it uses; and how it plans to measure them, that is, what measurable criteria will be used to assess these standards *vis à vis* the disability decision process research. The same criteria should then be used to evaluate the quality of both the current process of disability determination and any prototype to be tested.

Recommendation 4-1: The committee recommends that early in the redesign effort, the Social Security Administration should specify how it will define, measure, and assess the criteria it will use to evaluate the current disability determination process, as well as any alternative processes being developed.

In any scientific process, standards of acceptance or rejection are declared before, and not after, data are analyzed. Similarly in an evaluation research process, evaluative criteria and validation plans should be determined by the agency early in the research process, and not as currently planned after the prototype decision process is developed. The committee cannot emphasize enough that the agency has responsibility for setting the standards or evaluative criteria, and for designing approaches to testing and experimentation to be used by a contractor.

Identify Alternative Options

In order to answer the question of what can be done to alleviate the problems in the current decision process, alternative solutions have to be identified and developed. The research methods that should be employed include: (1) review and analysis of existing literature relevant to the problem, and (2) initiation of additional specially targeted research that could lead to the development of solutions. Preliminary review of SSA's research plan suggests that the agency is employing these methods. As described earlier in the chapter, component one and part of component three of SSA's research plan fall in this category. What follows is a review of the individual projects undertaken.

Review of Functional Assessment Measures

In 1995, SSA contracted with the Virginia Commonwealth University (VCU) to review systems, methods, and instruments that measure a person's functional capacity to perform activities and tasks, to develop a matrix of categories to classify these instruments, and to evaluate them to determine their potential application in the disability decision process. VCU completed its research and submitted its findings and recommendations to SSA in 1996.

The original literature search yielded nearly 700 different types of functional assessment instruments. Half of these instruments were discarded because they lacked the basic standardization criteria or were not relevant for SSA. The remaining 300 instruments were classified by further criteria, which narrowed the selection down to 46 instruments. Selection criteria focused on two of the more important issues: (1) primary purpose and description, and

(2) validation methods and samples. In addition, VCU also evaluated the availability of instruments in the public domain, global measures that can be applied to all types of disabilities, instruments not requiring administration by a physician or other highly trained specialist, cost of administration, and language. Finally, VCU looked at the extent to which the instruments had been used on the working age population and can be generalized to the SSA claimant population.

VCU's main conclusion in its report was that no government or private entity is currently using functional assessment instruments specifically for determining work disability benefits, and a global measure of functional assessment does not exist that would be a valid indicator of disability for all populations currently served by SSA. Such an instrument will likely have to be developed and tested.

After reviewing the advantages and disadvantages of both functional and clinical assessment measurements for SSA's needs, VCU concluded that objective functional assessment can and should be a component of the redesigned process. It recommended that SSA should use a global functional assessment measure to screen out people who do not have severe disabilities. A combination of clinical and functional assessment measures can be used in the next step to decide if the claimant meets SSA's disability definition. The global screening instrument to assess functional capacity could be standardized and validated on the SSA claimant population.

VCU, however, stopped short of constructing the global measure of functional capacity; instead, it recommended several steps SSA should take in moving toward the development of a global tool. The committee has not been informed of SSA's progress in this activity. VCU further stressed that in order for SSA to use this type of process, it needs to have (1) normative and predictive data for initial screening and determination of severity of disability, and (2) an occupational classification system that can be linked to residual functional capacities.

The committee is concerned that neither VCU nor SSA has made clear what conceptual or theoretical basis exists for believing that such a standardized, universally accepted global instrument applicable to persons with physical and mental impairments can be constructed. SSA needs to describe the basis for this belief, such as results from some developmental work in progress or literature that shows such instruments are in use elsewhere, before committing to such an approach in the new disability decision process.

Recommendation 4-2: The committee recommends that the Social Security Administration develop an alternative plan for use of functional assessment measures in the disability decision process in the event that the proposed global, standardized, functional assessment instrument is not developed and tested in time for implementation.

The committee is convening a workshop in June 1998 to discuss measures of functional capacity and work requirements as they relate to SSA's disability decision process research. *The committee urges SSA to take into consideration the results of the workshop as it proceeds in the area of functional assessment.*

Identification of Occupational Classification Systems

In 1996, SSA contracted with the American Institutes for Research to conduct a comprehensive review of the literature pertaining to systems and methods of classifying

occupations in terms of the physical and mental capacities required, to develop a taxonomy of occupational classification systems, and to assess the applicability of systems for SSA's redesigned disability determination process. This review relates directly to one of the key elements in the proposed redesigned disability decision process, namely, assessing baseline work. The purpose of the review is to determine if a standard exists, and if not, whether it is feasible to develop one to describe basic physical and mental demands of a baseline of work.

AIR's initial search yielded 33 different occupational classification systems. Based on the needs of SSA's disability determination process, AIR further screened these 33 systems and narrowed the search to 14 occupational classification systems. Each of these systems was rated on three criteria—content, technical quality, and usability. AIR concluded that while none of the occupational classification systems exactly or ideally matched SSA's needs, the Occupational Information Network (O*NET) under development was the closest match to SSA's needs.

O*NET is an occupational classification system being developed by the Department of Labor (DOL) under contract with AIR to replace the Dictionary of Occupational Titles. It consists of two databases. The first database is the incumbents' judgments about the skills and abilities needed for their jobs and the work activities they perform. There are over 300 variables per occupation for this database. Currently, O*NET only has data available for 30 of the largest occupations out of the estimated 1,200. DOL is scheduled to complete this database in 3 to 5 years. The second database contains job analysts' ratings of the skills and abilities that they believe are required for different jobs. This database covers all 1,200 occupations, however, it includes only a subset of the 300 variables per occupation. A prototype of the analyst-derived database was released by DOL to interested software developers in the fall of 1997.

One of the reasons AIR recommended O*NET over the other systems is because it uses level scales to measure the amount of skill needed to perform certain jobs. Incumbents choose a numeric rating based on their reading of the behavioral anchors. Cognitive and mental descriptors are also included in O*NET, but the physical ability scales that O*NET uses may not be specific enough to help SSA. For instance, they do not address single arm movements. Measurement of the physical ability scales is more like gross body movements as opposed to, for example, one arm. Because the incumbents' database will not be released for some time, SSA will probably have to use the analysts' database that includes only a subset of the variables that are in the incumbents' database. Although most of the variables SSA is interested in are in this subset, SSA needs to test the analysts' database to see if it contains all the information it needs.

AIR recommended that SSA establish a working relationship with DOL in the development of O*NET, construct a matrix of occupational classification and a functional assessment taxonomy, and conduct an analysis of the O*NET database, before deciding on O*NET as SSA's occupational classification system. The committee is not aware of the extent to which SSA has followed through on these recommendations.

Given the alternatives, the committee believes that O*NET may be the best option for SSA. AIR's suggestion that SSA construct a matrix between O*NET and a functional assessment taxonomy is especially useful, given the unique needs of SSA's disability decision process. Such a matrix would allow SSA to observe, and possibly supplement, any potential gaps that exist within the O*NET database.

Other issues need to be resolved before SSA uses O*NET in its disability determination process. First, there is no evidence that a simple definition of workplace functionality exists. In fact, those working in the field of occupational classification find it difficult to agree on a definition of an occupation that is precise enough to be applied across all workers and in all

business establishments. Too much depends on the worker, his or her ability to adjust to change, and on the employer's flexibility.

O*NET comprises a classification of the abilities and strengths required for people to work at certain jobs. SSA's disability determination is primarily based on people's inability to engage in any SGA. It may be difficult for SSA to use O*NET to match people's level of ability to work with specific potential occupations.

Another problem with O*NET is that it provides the average level of performance rating for each occupation. SSA's plans call for a baseline or minimum level of performance, since its goal is to see if people can do any work that is readily available in society, taking into consideration their age, education, and work experience. It is not clear how SSA plans to overcome this problem.

Finally, O*NET's physical ability scales may be inappropriate for persons with disability. However, according to AIR, they can be linked to levels of functioning. For example, O*NET lacks job descriptors related to the ability to sustain work over an 8-hour day for extended periods; psychosocial characteristics; and executive functions, such as planning work activities and schedules; or finishing one task and deciding to start another. These are important reasons why people with disabilities do not have jobs. The committee is concerned that O*NET may not include these characteristics.

The committee questions *how* O*NET will be used. SSA's current research design does not appear to be oriented to address this question. How does SSA plan to supplement O*NET with respect to contextual or other factors that are not well covered. There are no indications in the current research plan that the gaps in O*NET will be carefully considered and specific research identified to fill those gaps. The committee also is concerned about the synchronization of timing for completion of O*NET and SSA's target completion of the research for development and implementation of the disability decision process.

Recommendation 4-3: The committee recommends that the Social Security Administration develop an interim plan for an occupational classification system in the event that the Occupational Information Network (O*NET) database is either not completed or insufficient to meet the needs of a new disability decision process.

The committee believes that SSA should explore entering into some interagency arrangement with the Department of Labor to initiate a version of O*NET that would collect information on minimum as well as average job requirements to better serve SSA's needs to assess ability to engage in substantial gainful activity.

Other Disability Decision Programs

In September 1997, SSA awarded a contract to Westat to review other disability programs, public and private in the United States and in other countries, to determine if such programs have criteria, instruments, or any other features that may be appropriate for use in developing SSA's new disability decision process (SSA, 1997a).

Undoubtedly, one can learn from the experience of other disability benefit programs that face the same general problems as the Social Security disability programs in the United States.

At the same time, it is important to recognize that no other country in the world has a program as large as the U.S. program. When the United States is compared to other developed countries with disability benefit systems, it is the only country that does not have either a short-term or a partial disability program at the federal level (SSA, 1997e). In the United States, an applicant must meet the test of being permanently and totally disabled, or have the benefit application denied.

The task is considerable in light of the short duration of the contract—156 days. There is a paucity of evaluative materials in written documented form about the operations of these other programs, and comparing the published records can be problematic for a number of reasons:

1. As the observer of other programs tries to relate specific provisions of the foreign or other domestic programs' laws to the number or types of decisions, it is difficult to take into account for the more elusive factors such as the adjudicatory climate. Public opinion or the public perception of how the program is operating affects any program's operations. If the perception is that too many disability claims are being allowed, stories begin to circulate about the person who is on disability and actively engaging in sports, or the rumors circulate about children being coached to feign disability symptoms. Once the law is changed to make access to benefits more difficult, the nature of the public's perception changes, and the stories circulate about how worthy recipients are being stripped from the rolls. In either case, the administrators react to prevailing winds of public opinion, as does the public itself. It is commonplace to note that applications tend to decline and decision criteria tend to change in advance of any actual changes in the legal provisions governing these criteria (Yelin, 1989).
2. Another influence on decision outcomes is the quality of the administrative personnel. The competence of the decisionmakers and the extent of their freedom to operate free from political pressures are most important. For example, the tenure of some administrators of state workers' compensation programs is notoriously short.
3. Another is what goes by the catch-all term, "cultural factors." Differences exist among nations in the propensity of its citizens to sue one another or the administering authority, if a decision is not to their liking. There are vast differences in what people tolerate in the way programs are administered. In some nations, the administering authority can summon persons in for examination at the convenience of the authority, whereas in other countries, contact with the applicant would not be usual without extensive notice and appropriate safeguards.

Nevertheless, there are important similarities among programs across countries. All disability programs must first screen applicants to determine if an individual falls within the covered or insured group. All programs must then determine if the applicant has a physical or mental impairment. Learning about the various processes by which this determination is made should prove useful to SSA.

In some programs, benefit awards are made simply on the basis of the extent of the physical or mental impairment. In other jurisdictions, the decisionmaker is required to inquire into the extent of work incapacity, taking into account the applicant's education, age, and work experience, and possibly even the condition of the labor market.

Information from other programs about how such decisions are made, taking into account the adjudicatory climate, the type of administrators, and cultural factors, should prove valuable to SSA. It should prevent designers of the new process from making elementary mistakes. What should become clear after examining these other programs is that no obvious solution exists. Under particular conditions or at particular times, certain decision criteria seem to work, at least for a time. However, very sophisticated systems can lead to unsatisfactory results, and some simple systems can work to the satisfaction of the stakeholders in the system. What may emerge from examining other programs is that substituting measurements of functional capacity for assessment of physical impairments, or vice versa, is not necessarily a solution to a program's problems. The problems are complicated and deep-seated, and decision criteria cannot always be separated from the total administration of a program. They may stem from the adjudicatory climate, orientation to the welfare state, or the method of assessing functional capacity for work.

In order for the examination of other programs to be most useful, SSA should view its results with attention to differences in level and type of benefits paid, differences in administrative methods and resources, and especially differences in decision criteria used to measure physical and mental impairment and work incapacity.

Role of Vocational Factors in Determination of Disability

Based on a request for proposals issued by SSA, a 9-month reimbursable interagency agreement was negotiated with the Federal Research Division of the Library of Congress in September 1997 to review and evaluate published literature and any other research pertaining to the effects of age, education, and work experience on the ability to work or adapt to work in the presence of functional impairment (SSA, 1997c). The purpose of this interagency agreement with the Library of Congress, as stated in the request for proposal (RFP), is to assist SSA in deciding an appropriate way to incorporate into the redesigned disability decision process the specific statutory requirement to consider an individual's age, education, and work experience in determining ability to work.

The committee has concerns about several parts of the scope of work described in the request for proposals. One of the key objectives of the project is to determine the relationship of vocational factors and the interaction between them, to the person's ability to work. This is an important issue and the answer could be a major contribution to knowledge. The committee, however, wonders if this project, as stated in the scope of work and in the workplan developed by the Library of Congress, will be able to differentiate between those who cannot work, and those who are not working but could conceivably do so, and who have vocational deficits that suggest that vocational factors may be the cause.

The scope of work for this project includes: a comprehensive review and evaluation of published and unpublished literature, both national and international, and of any other research pertaining to the effects of vocational factors on an individual's ability to work, or adapt to work, in the presence of a functional impairment; and an analysis of the development of, and basis for, the current statutory requirement for consideration of vocational factors. It further includes an assessment of how these vocational factors should be considered in evaluating a person's ability to work despite a severe, medically determinable, physical and/or mental impairment; and evaluation and recommendation of methods or techniques that may be appropriate for use by SSA.

SSA has listed in its RFP several related or subsidiary issues likely to arise in the course of conducting this research. SSA expects the Library of Congress to research and answer these questions in its evaluation and recommendations. Some of these issues are: the extent to which the actual process of aging, as distinct from medical impairment, affects an individual's ability to work; if measurement of functional capacity will address adequately the impact of age on ability to work and if not, what additional measures will be needed; how to define "nearing full retirement age;" can a baseline of work be defined in terms of clusters of jobs in order to account for the impact of vocational factors; and what are the effects of changes in the workplace.

The final report of this interagency agreement will provide an in-depth analysis of the role of vocational factors in a new disability decision process. This process will include a detailed assessment of each factor's contribution to the evaluation process; documentation of the separate effects of each vocational factor, as well as their interaction with one another and with an individual's functional abilities; assessment of the ability of an individual to adjust to work other than that which has been previously performed; and recommendations for any change in the role of vocational factors in a new disability decision process.

As a result of this review and analysis, SSA states that it hopes to determine if the present process; the proposed decision process; or some other, as yet unspecified, process provides the optimal mechanism(s) for considering vocational factors. Does that mean that the Library of Congress first will assess the role of vocational factors in the current decision process (or that such baseline analysis has been done by SSA) and then undertake similar assessments on the proposed decision process(es). In this context, baseline studies are needed to obtain answers to questions, such as how important to decision-making is the current evaluation of vocational factors; how are the factors specified operationally; and what effects are found from their application, with respect to the population of claimants and beneficiaries as a whole, and also with respect to different groups of beneficiaries. The committee is not aware if such a baseline study was or is being done. The committee was informed, however, that such an analysis might be part of one of the last tasks under the synthesis and integration contract awarded to AIR, but the Library of Congress project will be completed by then. Moreover, SSA is asking the Library of Congress to focus on how the effect of vocational factors would fit into the proposed sequential disability decision-making process, but if the alternative is "as yet unspecified," it may be difficult to assess the effects of vocational factors.

SSA currently uses the vocational rules to guide its decisions only for people who are classified by adjudicators as having physical impairments. In this study, SSA asks the Library of Congress to go beyond the current methods and analyze how these vocational rules can be used for people with mental and cognitive impairments. SSA only briefly mentions this in the scope of work, but the implication is that the results of this research will lead to vocational factors that can be applied to individuals with both physical and mental and cognitive impairments.

In conclusion, the scope of work in the RFP for this study is formidable especially in light of the short timeframe for completion of the work (259 days). At the same time the workplan for this research is general and brief. The committee, therefore, is unclear to what extent and depth the issues laid out by SSA will be addressed. The tasks stated in the RFP, if performed adequately and in a comprehensive manner, are considerable.

Recommendation 4-4: The committee recommends that the Social Security Administration conduct baseline studies on the role of the evaluation of vocational factors in the current decision-making process and the effects of these factors on the populations of claimants and beneficiaries.

Specially Targeted Research.

In addition to review and analysis of existing literature, specially targeted research is usually needed to identify and develop alternative solutions to existing problems. SSA's task-order-type contract with AIR negotiated at the end of September 1997 is in this category. To the committee's knowledge, to date no other research has been planned or undertaken that is specifically targeted for this purpose. The task order mechanism of this contract permits SSA to rapidly award additional contracts to AIR as separate tasks.

Synthesis, Integration, and Prototype Development

As described earlier in the chapter, SSA has awarded the first task order to AIR. The Boston University, VCU, Washington University's Program in Occupational Therapy, Westat, and numerous consultants are also involved in this task order. The purpose of the first task order under the umbrella contract is to synthesize and integrate the research conducted under the first component of the research plan; the work of SSA staff and designated consultants; and the work of the contractor for the DES; and to identify and conduct additional research needed. In addition, the contractor will develop and assess one or more prototypes for the new decision-making process and its individual components, and recommend testing strategies for the prototypes. These strategies will include evaluating and testing for validity, reliability, specificity, sensitivity, and other applicable measures of the prototype of a new decision process and its individual components (SSA, 1997d).

This first task order includes 13 tasks with numerous subtasks to be completed in two years. The committee is unable to comment on the specific empirical research components because the workplan in response to the RFP is general and appears to rely mostly on opinions of consultants and interest groups, expert reviews, and focus groups for obtaining objective scientific information. These methods have a definite place, but they should supplement not substitute for, essential well-designed studies to obtain and analyze empirical data. The RFP issued by SSA suggests a loose, open-ended research strategy, lacking in specifics and directives to a contractor. Also some of the tasks appear to duplicate similar tasks in the other related contracts, and the timeframe for completion of tasks appears to be too short for adequate investigation of the issues.

To illustrate the point, task two of this task order contract requires the contractor: (1) to review critically and analyze the findings of the four literature review projects (Functional Assessment Instruments conducted by VCU, Occupational Classification Systems conducted by AIR, Other Disability Programs awarded to Westat, and the Effects of Vocational Factors awarded to the Library of Congress as an Interagency Agreement); (2) to review the work of SSA's consultants, staff's research activities and deliberations, and other sources to assess the adequacy of the knowledge base underlying the development of a prototype of a new disability

decision-making process; and (3) identify additional research needs and make recommendations on the conduct of this research. All of these activities are to be completed and the final report on this task submitted to SSA in 5 months after the date of the agreement. However, the final report of the vocational factors study will not be available for AIR to review, analyze, and integrate with the other research projects until months later. The RFP for the DES contract was issued in January 1998, and a contract is expected to be awarded sometime in the summer of 1998.

A month later, the contractor is required to complete task four, which is an in-depth review and analysis of the proposed decision process, including a preliminary assessment of the feasibility of developing such a process. The assessment will address potential development costs and timeframes, potential administrative and programmatic effects of such a new process, and make recommendations for development of alternative decision methods.

Some of the other tasks to be conducted in this task order include: investigating issues related to the definition of a single baseline of work demands applicable to all circumstances in terms of common and fundamental functional requirements and use of O*NET to develop such a baseline, identifying the dimensions of functioning to be measured in the functional assessment instruments, developing standardized functional assessment protocols, and analyzing and assessing the feasibility of using these protocols. The contractor is required to develop several recommendations for testing the prototype(s) of the new decision process in various settings and to evaluate its reliability, validity, sensitivity, and specificity; and to assess its effects on decision outcomes, as well as on a number of administrative and program variables of importance to SSA.

The committee is concerned that SSA is attempting to get answers to complex research questions in a very short timeframe. The committee supports the objectives of redesign research, but questions whether these objectives can be achieved within the time limits specified for completion of the task order and the individual tasks within it, all the individual projects, and of the total research plan. Proper sequencing of the projects is as important as the conduct of the discrete projects. Results from earlier projects should be available for development and conduct of later projects that will be influenced by these results. Research, development, and testing relating to such fundamental redesign as that proposed by SSA should be satisfactorily completed before the recommended changes are implemented.

Recommendation 4-5: The committee recommends that the Social Security Administration reconsider the timeframe for completion of the redesign research so that the necessary questions can be answered in an appropriately sequenced and coordinated manner.

Any changes in the disability decision process will be of critical importance to people with disabilities, their families, and advocates. When the redesigned process is presented to these groups, they will want to know what alternatives were considered in developing the new decision process and what evidence SSA has that the new process will be better than the current one.

Small-Scale Testing and Field Evaluation

Can a hypothetical concept developed in a research environment be converted into a workable program that can be implemented in the real world? In order to answer that question, iterative testing is required on small samples in a laboratory environment and then in the field.

Based on the results of this testing, prototypes can be developed and pilot tested, followed by field evaluations in the form of national surveys to further refine and revise the prototype. As the committee emphasized in its first interim report, SSA should use data from its national surveys and special studies, as well as surveys conducted by other agencies, to assist in evaluating the prototype and developing workable alternatives.

Laboratory Research

SSA's research plan includes testing in a controlled setting the proposed components of a new decision process, such as functional assessment tools and proposed screening mechanisms. SSA is hopeful that data from this testing will narrow the choices among possible policy options by developing empirical data on which to base decisions. In addition, SSA envisions "laboratories within which other potential components of a new disability decision process may be tested in a controlled setting. These laboratories may provide controlled setting and representative samples within which data may be gathered and a new disability decision process may be tested."³ According to SSA, the setting and testing procedures will vary depending on the issue under investigation.

SSA uses the term laboratory rather loosely to refer to any controlled setting in which it could test or evaluate ideas relevant to the project. In response to the committee's questions, SSA explained that a "laboratory" for purposes of its research plan could be anything from a small number of disability decisionmakers reviewing case files to determine whether they contain sufficient occupational information to a formal evaluation of the validity and reliability of a specific functional assessment protocol. To date, SSA has not developed any specific requirements regarding key questions and subject pools to be included.

Clearly, SSA does not envision a laboratory similar to those established in some other federal agencies and in some organizations in the private sector. With the changing composition of the population, advances in medicine and technology, major shifts in the labor market and the changing perception of disability in society, the current major effort SSA has undertaken will not be a one time effort, but will need periodic modifications and changes in the years ahead.

Recommendation 4-6. The committee recommends that the Social Security Administration establish a cognitive laboratory for the Disability Evaluation Study, disability decision process research, and for other purposes of the agency.

For example, the National Center for Health Statistics (NCHS) cognitive laboratory was established to promote and advance interdisciplinary research on the cognitive aspects of survey methodology among federal statistical agencies, universities, and research centers. Identifying the underlying cognitive difficulties that respondents experience in dealing with difficult or impossible tasks implicit in some survey questions or procedures facilitates the process of revising a questionnaire or procedure. Intensive interviewing techniques in a laboratory setting detect design flaws in instruments by observing the cognitive stage of the response process. Since the establishment of the NCHS laboratory, other laboratories have been established in

³ Letter from the Social Security Administration, dated August 11, 1997.

other federal agencies including at the Bureau of the Census, the Department of Labor, Statistics Canada, and the private sector (Sirken, 1991).

The committee urges SSA to explore with agencies, such as the Bureau of the Census, DOL, NCHS, and the private sector, experiences that can guide SSA in implementing this recommendation.

Pretesting, Pilot Testing, National Survey

The Disability Evaluation Study planned by SSA is one source for testing and field evaluation. The committee addressed the need for such testing in its first report dealing with the design of the DES. It recommended that a formal field experiment should be performed during the research and development and testing phase of the survey to determine the validity, reproducibility, and cost-effectiveness of the approaches developed. The report further stated that studies are needed to address measurement issues, such as assessing functional status and quality of medical evidence of record. These tests call for repeated measurements and will need to be iterative to be able to test the validity and reliability of measures.

Process Engineering Input

Determining eligibility to receive Social Security disability benefits under current eligibility rules is a highly complex process involving thousands of SSA staff trained to apply a multitude of specific instructions generally described in the *Social Security Handbook* and in greater depth in thousands of pages of process instructions and amendments found in documentary sources like, the *Program Operations Manual System*, *Modern System Operations Manual*, and *Social Security Rulings*. Essentially, the process of administering disability benefits is thus a large set of interconnected instructional steps, such as preparing a medical file for the applicant, completing an applicant interview, and completing the questionnaire in considering a beneficiary for continuing disability benefits. Completing these steps involves one or more of the following participants: applicants, beneficiaries, and various staff, such as claims representatives and vocational disability examiners. Viewed another way, each participant in the disability benefits process has a set of instructional steps that he or she is expected to complete, thus defining the process role for each type of participant.

Two ingredients are essential for the success of any administrative process. First, instructional steps must effectively meet the administrative goals of the process, that is, correctly establish an applicant's eligibility for SSA disability benefits. Second, instructional assignments must be made to the right person(s), such as participants in the disability determination process. Evaluating the effectiveness of the first ingredient can be accomplished by considering the adequacy of various measures of process outcome, but evaluating the second ingredient—efficiency of task assignment and participant roles—requires input from those who study processes.

Whereas, many of the committee's recommendations have addressed the need to assess the utility of the disability decision process (i.e., the first ingredient), none of its recommendations have specifically addressed the need for research into the process engineering of SSA's disability claims process (i.e., the second ingredient). While SSA has obtained some guidance early in

planning the reengineering of the disability claims process from process engineering experts, the committee believes that SSA would benefit from additional guidance in this area.

Recommendation 4–7: The committee recommends that the Social Security Administration actively engage process engineering experts (such as industrial engineers or operations researchers) to evaluate and improve the Social Security Administration's disability benefits administrative process to assure that task assignments and participant roles achieve a maximum level of effectiveness and efficiency.

This recommendation implies that SSA form a group of suitably oriented faculty from some of the leading academic process engineering programs (e.g., industrial engineering, operations research, and operations management in business) to assist SSA with planning its research agenda for the disability claims process. For instance, appropriate experts in industrial engineering might be drawn from programs at Georgia Institute of Technology, North Carolina State University, Purdue University, Stanford University, and Virginia Polytechnic Institute and State University. This process research advisory group might help SSA define specific issues that would become part of a research agenda aimed at improving the administration efficiency of the disability claims process. For instance, one item on the advisory committee's process research agenda might be to decide if the initial applicant interview is best administered by the claims representative over the telephone or self-administered and mailed in by the applicant, or some combination thereof. The advisory group might also assist SSA in soliciting and selecting an academic center(s) or private firm(s) to provide SSA with ongoing process research support of the kind implied by this recommendation.

Program Evaluation and Transition to Implementation.

Once it is decided that a proposed prototype for a new decision process is feasible, that is, has a realistic probability of success when implemented, the next step is a transition from a research mode to implementation of the process. The question that must be answered is: will the new process be more effective and efficient than the existing one. Research methods that are appropriate for such assessments include simulation and modeling using data from the national surveys, analysis of data using the same evaluative criteria developed at the initiation of the research and applied to the existing process, clinical trials, and applicant and claimant satisfaction surveys. The process also must be tested in selected sites and refined to assure its smooth implementation.

Simulation, Modeling, and Analysis of Information Using Established Evaluative Criteria

Over the years SSA has developed models to simulate the application process, assess the factors affecting disability decisions, and estimate the size of the population potentially eligible for benefits (Hu, et al., 1997; Lahiri, et al., 1995). To date the principal limitation is that these models depend mainly on household survey data which are supplemented with program data

only on applicants. These models, therefore, rely on limited self-reported measures of health and severity of limitations and incorporate the implicit assumption that self-reported data for applicants are consistent with self-reports for nonapplicants. However, perceptions of health and limitations may be different among applicants and nonapplicants, which in turn could result in differences in self-reports. Such differences in response may result in significant biases in estimates of the size of the population of eligible nonparticipants in the program.

The DES for the first time will provide objective health related measures that can be used to evaluate the appropriateness and reliability of self-reporting measures for both applicants and nonapplicants. Such data can be used to both corroborate the validity and consistency of self-reported data collected in surveys and to improve models that may use data from current and future data sources. *The committee hopes that data generated from this effort will be analyzed for modeling alternative disability decision processes, using the evaluative criteria established early in the redesign research.* Moreover, the effect of redesigning the decision process on the number and characteristics of future beneficiaries also needs further study and development, and this will require specific and detailed information on health, impairment, as well as functional assessments. However, until the DES is more fully developed, the committee is unable to comment further at this time on SSA's plans for simulation and modeling using data from the DES and other data sources.

The committee believes that SSA needs to enhance its research capacity in this area of research, including developing the capacity and expertise to undertake these activities in-house. Adequate resources should be made available for this important research area.

Recommendation 4-8: The committee recommends that the Social Security Administration develop plans for simulation and modeling of alternative disability decision processes and other policy options, and devote adequate resources for this activity.

Clinical Trials

Clinical trials are mainstay tools of medical, therapeutic, and technology assessment. The most definitive type of clinical trials is the randomized controlled clinical trial (RCT). In an RCT, patients are randomly assigned to experimental and control groups. Randomization reduces bias that might otherwise be introduced by prognostic and other selection factors not accounted for in the design of the trial (Institute of Medicine, 1985).

The committee believes that when alternative disability decision processes are developed, they can be formally tested in a direct comparison with the current process by the conduct of clinical trials. An example of a clinical trial that can be conducted is to subject existing claims files, for which a decision already has been made, to the alternative process and the results compared in terms of outcomes and process variables. Alternatively, a prospective randomized design could be implemented for comparing alternative disability decision processes.

Testing in Selected Sites

As with many applied research programs, the assessment of SSA's decision process involves a phenomenon that is affected by changes in the external environment. For example, as the universe of jobs changes, the set of functional requirements one needs to be qualified for any job would also change. As the economy changes or as physical and mental impairments recognized as debilitating evolve, the set of functions to measure might also change. As researchers invent medical and social measurement techniques, the set of functions that are feasible to measure changes. For all these reasons, SSA should not view the current research activities as discovering permanent solutions to the problems it faces. Research to evaluate decision processes should be an ongoing program. This could be integrated into a system designed to monitor the size of the pool of persons with disabilities.

In addition, SSA's current plans generate the need to consider a longitudinal program of evaluation. The functional measurement to be used in DES will be based on measures newly developed by the integration contractor. Analysis of the DES may show that the set of functional assessments is not adequate for use in a decision process. Alternatively, other SSA research may demonstrate that new measures would offer potential improvements over the set used in the DES.

Missing from all the contract activities completed and underway is any effort to stimulate exploration of alternatives to the traditional approaches. SSA should devote more attention to testing and experimentation. It should consider awarding a series of small grants or contracts to bring together experts and consumers to brainstorm innovative approaches. SSA will need tools to evaluate the performance of the new candidate measures relative to those used in DES. *The committee believes that SSA should identify ways to test new ideas in future studies, including randomized controlled experiments of alternative procedures, which would facilitate ongoing improvements in SSA's disability decision process.*

5

Concluding Comments

The committee commends the Social Security Administration (SSA) for initiating the daunting task of improving the disability decision process and for developing research activities to assess the feasibility, validity, and reliability of a proposed redesigned decision process.

This report provides a preliminary review of SSA's research plan and the timeline for its completion. The committee has strong reservations that the present research design, the timeframe for completion of the redesign research, and the sequencing of the individual projects will not be able to adequately answer the necessary questions. The research planned and currently being conducted is a good start, but it lacks critical elements of a well-designed research plan. *The committee urges SSA to adopt a rigorous research design process; to develop, early in the research, objective validation criteria and validation plans to be able to make the ultimate judgments on whether or not the proposed changes will yield the desired results. The committee is issuing this brief report at this time in the hope that the recommendations embodied herein will be incorporated in the contract research that is currently underway and in new research not yet initiated.*

This report has focused on additional required research in the disability decision process. The committee is aware of the limited resources allocated to all Social Security research activities. Two recent reports of the Social Security Advisory Board (1997 and 1998) noted the very small number of staff positions and budget amounts devoted to research and recommended that SSA should increase its intramural and extramural research activities. A third report (Institute for Health and Aging, 1997) reviewed the mission, resources, and capabilities in SSA's Office of Research, Evaluation and Statistics (ORES) and recommended that at least 50 new full-time positions be added to ORES staff to strengthen the internal research and evaluation capacity, to develop and support external resources for research, and to insure that adequate funding be required to support these programs. Further it stated that "Social Security currently is a \$496 billion program. In fiscal year 1997, a total of \$400,000 is allocated for extramural research grants; this amounts to one one-millionth of the total program. Compare this minuscule amount with the approximately \$10 billion spent by the National Institutes of Health on research grants" (Institute for Health and Aging, 1997, p. 33). While these recommendations encompass all of SSA's research activities and go beyond research in the disability decision process, the

committee recognizes the need to revitalize and strengthen ORES's research program and encourage collaboration with other federal agencies in activities relevant to SSA. The committee fully endorses these recommendations for increased resources and in-house capacity for research.

Recommendation 5-1: The committee recommends that the Social Security Administration's research and evaluation staff and its extramural research program be expanded substantially.

The above recommendation and earlier statements throughout the report on the importance of strengthening the in-house research capacity in SSA in no way suggest that there is no role for extramural research. A balanced program of intramural and extramural research is needed. Extramural research by itself cannot solve the problems. "No amount of external research will replace the need for the agency to invest in the internal research capability, for it is essential in itself and inextricably linked with the capacity to implement and use an effective extramural program" (Institute for Health and Aging, 1997, p. 29). Moreover, extramural research program places its own demands on the agency's research staff. Even when external researchers are competent, the oversight responsibility for careful evaluation of the work to insure the quality, adequacy, and appropriateness of the products, and for designing the approaches to testing and experimentation is that of the agency.

The text of the committee's recommendations follows, keyed to the chapter in which they appear in the body of this report.

RECOMMENDATIONS

Recommendation 4-1. The committee recommends that early in the redesign effort, the Social Security Administration should specify how it will define, measure, and assess the criteria it will use to evaluate the current disability determination process, as well as any alternative processes being developed.

Recommendation 4-2. The committee recommends that the Social Security Administration develop an alternative plan for use of functional assessment measures in the disability decision process in the event that the proposed global, standardized, functional assessment measure is not developed and tested in time for implementation.

Recommendation 4-3. The committee recommends that the Social Security Administration develop an interim plan for an occupational classification system in the event that the Occupational Information Network (O*NET) database is either not completed or insufficient to meet the needs of a new disability decision process.

Recommendation 4-4. The committee recommends that the Social Security Administration conduct baseline studies on the role of the evaluation of vocational factors in the current decision-making process and the effects of these factors on the populations of claimants and beneficiaries.

Recommendation 4-5. The committee recommends that the Social Security Administration reconsider the timeframe for completion of the redesign research so that the necessary questions can be answered in an appropriately sequenced and coordinated manner.

Recommendation 4-6. The committee recommends that the Social Security Administration establish a cognitive laboratory for the Disability Evaluation Study, disability decision process research, and for other purposes of the agency.

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Recommendation 4-8. The committee recommends that the Social Security Administration develop plans for simulation and modeling of alternative disability decision processes and other policy options, and devote adequate resources for this activity.

Recommendation 5-1. The committee recommends that the Social Security Administration's research and evaluation staff and its extramural research program be expanded substantially.

References

- Berk, R.A., and Rossi, P.H. *Thinking About Program Evaluation*. Newbury Park, Calif.: Sage Publications, 1990.
- Carmines, E.G., and Zeller, R.A. *Reliability and Validity Assessment*. Newbury Park, Calif.: Sage Publications, 1979.
- DHHS (U.S. Department of Health and Human Services). Implementation of Section 304(g) of Public Law 96-265, Social Security Disability Amendments of 1980. Report to the Congress by the Secretary of Health and Human Services. Washington, D.C.: DHHS/Social Security Administration, 1982.
- Gallicchio, S., and Bye, B. Consistency of Initial Disability Decisions Among and Within States. Washington, D.C.: U.S. Government Printing Office, (DHHS/SSA): SSA Pub. No. 13-11869, 1980.
- GAO (U.S. General Accounting Office). *Social Security Disability: SSA Quality Assurance Improvements Can Produce More Accurate Payments*. Report to the Chairman, Committee on Finance, U.S. Senate. Pub. No. GAO/HEHS-94-107. Washington, D.C.: GAO, June 1994.
- GAO. *Social Security Disability: Management Action and Program Redesign Needed to Address Long-Standing Problems*. Testimony by Jane L. Ross to the Subcommittee on Social Security, Committee on the Ways and Means, House of Representatives. Pub. No. GAO/HEHS-95-233. Washington, D.C.: GAO, August 1995.
- GAO. *Supplemental Security Income: Long-Standing Problems Put Program at Risk for Fraud, Waste, and Abuse*. Testimony by Jane L. Ross to the Subcommittee on Oversight, Committee on the Ways and Means, House of Representatives. Pub. No. GAO/HEHS-97-88. Washington, D.C.: GAO, March 1997a.
- GAO. *Social Security Disability: SSA Must Hold Itself Accountable for Continued Improvement in Decision-making*. Report to the Chairman, Subcommittee on Social Security, Committee of the Ways and Means, House of Representatives. Pub. No. GAO/HEHS-97-102. Washington, D.C.: GAO, August 1997b.
- Hu, J., Lahiri, K., Vaughan, D., and Wixon, B. A. Structural Model of Social Security's Disability Determination Process. ORES Working Paper Series, No. 72 Ed. Washington, D.C.: SSA/Office of Research, Evaluation, and Statistics, 1997.
- Institute for Health and Aging. Strengthening Policy Development Work Within the Social Security Administration: A Review of the Mission, Resources, and Capabilities in the Office of Research, Evaluation, and Statistics. San Francisco: University of California, December 1997.
- Institute of Medicine. *Assessing Medical Technologies*. Washington, D.C.: National Academy Press, 1985.
- Lahiri, K., Vaughan, D., and Wixon, B. Modeling SSA's sequential disability determination process using matched SIPP data. *Social Security Bulletin* 58(4):3-42, 1995.
- Last, J.M., ed. *A Dictionary of Epidemiology*. New York: Oxford University Press, 1983.
- Mashaw J.L., and Reno V.P., eds. Disability Policy Panel Report: Balancing Security and Opportunity: The Challenge of Disability Income Policy. Washington, D.C.: National Academy of Social Insurance, 1996.
- Raizen, S.A., and Rossi, P.H. *Program Evaluation in Education: When? How? To What Ends?* Washington, D.C.: National Academy Press, 1981.
- Sirken, M.G. The Role of a Cognitive Laboratory in a Statistical Agency. Statistical Policy Working Paper 20: Seminar on Federal Quality of Federal Data. Washington, D.C.: Office of Management and Budget, Office of Information and Regulatory Affairs, Statistical Policy Office, March 1991.
- SSA (Social Security Administration). Documentation of the SSA Disability Claim and Appeal Process. Washington, D.C.: SSA, Office of Human Resources, Office of Workforce Analysis, April 1993. (Unpublished Draft)

- SSA. *Plan for a New Disability Claim Process*. Washington, D.C.: U.S. Government Printing Office (DHHS/SSA): SSA Pub. No. 01-005, September 1994a.
- SSA. *Disability Process Redesign: Next Steps in Implementation*. Washington, D.C.: U.S. Government Printing Office (DHHS/SSA): SSA Pub. No. 01-006, November 1994b.
- SSA. Research plan for the development of a redesigned method of evaluating disability in Social Security claims. *Federal Register* 61 (175):47542-47544, 1996.
- SSA. An Analysis of Other Disability Programs. Request for Proposals for SSA-RFP-97-2971 (Issue Date: June 12, 1997). Washington, D.C.: SSA, 1997a.
- SSA. Progress report on development of a redesigned method of evaluating disability in Social Security claims. *Federal Register* 62 (121):34097-34101, 1997b.
- SSA. In-Depth Analysis of the Role of Vocational Factors in a New Disability Determination Process. Request for Proposals for SSA-RFP-97-3114 (Issue Date: June 30, 1997). Washington, D.C.: SSA, 1997c.
- SSA. Integration of Disability Methodology Research. Request for Proposals for SSA-RFP-97-3118 (Issue Date: August 6, 1997). Washington, D.C.: SSA, 1997d.
- SSA. *Social Security Programs Throughout the World—1997*. Washington, D.C.: U.S. Government Printing Office (SSA/Office of Research, Evaluation, and Statistics), SSA Pub. No. 13-1-11805, (August) 1997e.
- SSA. Disability Evaluation Study (DES). Request for Proposals for SSA-RFP-98-3102 (Issue Date: January 15, 1998). Washington, D.C.: SSA, 1998a.
- SSA. Disability Redesign—Overview and Status [WWW document]. URL http://www.ssa.gov/DPRT/DPRT_intro.html. (January 26), 1998b.
- Social Security Advisory Board. *Developing Social Security Policy: How the Social Security Administration Can Provide Greater Policy Leadership*. Washington, D.C.: Social Security Advisory Board, March 1997.
- Social Security Advisory Board. *Strengthening Social Security Research: The Responsibilities of the Social Security Administration*. Washington, D.C.: Social Security Advisory Board, January 1998.
- Steuerle, C.E., and Bakija, J.M. Retooling Social Security in the 21st century. *Social Security Bulletin* 60(2):37-60, 1997.
- Swets J.A. Measuring the accuracy of diagnostic systems. *Science* 240:1285-1293, 1988.
- Swets J.A. The science of choosing the right decision threshold in high stakes diagnostics. *American Psychologist* 47:522-532, 1992.
- Yelin E.H. Displaced concern: The social context of the work disability problem. *Milbank Quarterly* 67(Suppl 2, Part 1):114-165, 1989.

Appendix.

REVIEW OF THE SOCIAL SECURITY ADMINISTRATION'S DISABILITY DECISION PROCESS RESEARCH

Study Mandate

The study will review and provide advice on the scope of work, design, content of the survey, and the approach and scientific methods of completed and planned research as the Social Security Administration (SSA) develops the new disability decision process. The study will focus on the population 18–69 years of age. Although the committee is given latitude in setting its own agenda and designing its plan of work, the topics it explores will include:

- Review of the research plan and timeline for developing a new decision process for disability;
- Review of the preliminary design of the Disability Evaluation Study (DES) research efforts, the scope of work for the DES, and the design and content of the survey, as proposed by the survey contractor, as well as SSA's plans to integrate the decision method and DES research effort, identifying statistical design, methodological and content concerns, and other outstanding issues;
- Examine the results of completed research including research into existing functional assessment instruments and subsequently identified research for SSA's redesign efforts, and provide advice for adopting or developing functional assessment instruments or protocols for the redesigned disability process and the DES in particular; and
- Assess the results and findings of the research undertaken by SSA, comment on future research proposals, and offer advice on the analysis of the consequences of alternative disability determination processes. Some of the topic areas that might be considered include: functional assessment of work-related limitations of physical and mental impairments; disability decision processes (including screening mechanisms); testing and validating decision processes for determining disability; and age, education, and work experience.

Acronyms and Abbreviations

AIR	American Institutes for Research
ALJ(s)	administrative law judge(s)
The Act	The Social Security Act
DDS	disability determination service
DES	Disability Evaluation Study
DHHS	U.S. Department of Health and Human Services
DOL	U.S. Department of Labor
GAO	U.S. General Accounting Office
NCHS	National Center for Health Statistics
O*NET	The Occupational Information Network (U.S. Department of Labor)
ORES	Office of Research, Evaluation and Statistics (Social Security Administration)
RCT	randomized controlled clinical trial
RFC	residual functional capacity
RFP	request for proposal
ROC	relative operating characteristic
SGA	substantial gainful activity
SSA	Social Security Administration
SSDI	Social Security Disability Insurance
SSI	Social Security Insurance
VCU	Virginia Commonwealth University