

**Occupational Information Development Advisory Panel
Content Model and Classification Recommendations**

APPENDIX H

Final List of Approved Subcommittee Recommendations

Occupational Information Development Advisory Panel Content Model and Classification Recommendations

This page is left intentionally blank.

Occupational Information Development Advisory Panel Content Model and Classification Recommendations

APPENDIX H

Final List of Approved Subcommittee Recommendations

GENERAL RECOMMENDATION #1

The Panel concurs with SSA that any new occupational resources it creates must reflect the following:

- Classification system that is aggregated to support individualized disability assessment and that can be cross-walked to the United States' Standard Occupational Classification (SOC).
- Occupationally-specific data that are precise (i.e., they capture homogeneous ratings of work demands and worker traits), and they can be aggregated into clusters of similar work activities (i.e., occupational titles).
- Core tasks or work activities of the occupation.
- Minimum levels of requirements needed to perform the work.
- Observable and deconstructed measures.
- Manageable number of data elements or constructs that are critical to disability adjudication.
- Sampling methodology that captures the full range of work (i.e., all skill levels).
- Inter-rater agreement levels that justify data inference of high quality data.
- Data collection methods that produce high quality data.
- Occupational data that is empirically established as valid, accurate, and reproducible.
- Whether or how occupations allow workers to perform core work activities in alternative ways (e.g., sit-stand option).
- Terminology that is consistent with standard medical practice and human function.

GENERAL RECOMMENDATION #2

The Panel concurs with SSA that the Agency needs to create a new occupational information system to replace the *Dictionary of Occupational Titles* (US Department of Labor, 1991) in SSA's disability adjudication process.

Occupational Information Development Advisory Panel Content Model and Classification Recommendations

GENERAL RECOMMENDATION #3

The Panel recommends that SSA identify and retain internal expertise for developing and conducting research for both the person-side and work-side taxonomies of the OIS.

WORK TAXONOMY & CLASSIFICATION SUBCOMMITTEE

A. Data Element Recommendations for Work Taxonomy

1. Use the initial empirically derived work taxonomy (see Appendix E, Table 1, p. 17) as a stimulus to develop the instruments to measure each dimension.

B. Research Recommendations for Work Taxonomy

1. Pilot study (18-month period)
 - a) Select the jobs most frequently 1) held by at least 95% of SSA disability claimants and 2) identified by SSA as examples of work for those with specific residual functional capacities.
 - b) Conduct pilot study
 - i. Train expert users as a source to provide job level data for the pilot study.
 - ii. Obtain job level data by interviewing job incumbents during the pilot study.
 - c) Compare results of job level data from experts and incumbents.
 - d) Evaluate pilot study data for utility, reliability, and validity of job descriptions by the OIS through direct observation and convergence with expert validated job profiles.
 - e) Perform a usability analysis using the pilot study data to generate prototype occupational analysis reports and computerized systems.
 - f) Use pilot study results to refine the preliminary work taxonomy findings using psychometric principles.

Occupational Information Development Advisory Panel Content Model and Classification Recommendations

2. Develop and implement a plan to sample work from all jobs in the national economy for the operational database.

C. Measurement Recommendations for Work Taxonomy

1. Identify multi-item scales for existing work taxonomy dimensions.
2. Use items scaled per a) frequency of job occurrence, b) duration of required performance for the job, and c) other scales as needed.
3. Use decomposed ratings of work to prevent holistic ratings of abstract work characteristics.
4. Once a large database representative of all work in the national economy is available, examine various job classification methods based on the common metric.

D. SSA OIS Development

1. Develop an internal unit devoted to OIS design, development, data collection and analysis, and maintained with experts in common metric work analysis, labor economics, and other specialties such as internal project management to interface with experts in a registered online community for the creation, operationalization, and maintenance of the OIS.
 - a) Increase internal work analysis expertise to carry out the core task of collecting and analyzing information about work, and maintaining the database accuracy.
 - b) Establish independence and scientific credibility of OIS unit.
 - c) Host online community of researchers and other relevant professionals to inform the OIS unit of emerging ideas, research and methods.

E. OIS Maintenance

1. Regularly and randomly select jobs for audit to keep the database current.
2. Schedule review of OIS items for usefulness vis-à-vis expired and emerging work content.
3. Host online communities to indicate the need for research.

Occupational Information Development Advisory Panel Content Model and Classification Recommendations

WORK EXPERIENCE ANALYSIS SUBCOMMITTEE

- A. Data Element Recommendations for Work Experience Analysis
 - 1. Use work activities as an observable and measurable proxy for 'skill' for data collection and development.
 - 2. Develop work context factors for the OIS (e.g., industry, work settings, tools, machines, technologies, raw materials, products, subject matter, processes, service, etc)
- B. Research Recommendations for Work Experience Analysis
 - 1. Conduct studies on data elements and occupational data collected in pilot studies that may inform the application of OIS data in SSA's work experience analysis. These studies could inform Agency policy in such areas as TSA, vocational advantage, relevance of work, complexity level, and time to proficiency.

MENTAL/COGNITIVE DEMANDS SUBCOMMITTEE

A. Data Element Recommendations for Mental/Cognitive Demands of Work

The Panel recommends that SSA consider the psychological abilities shown under each category below as important psychological abilities required to do work.

- 1. Neurocognitive Functioning
 - a) General cognitive ability (how well a person can reason, solve problems, and meet cognitive demands of varied complexity)
 - b) Language and communication (how well a person can understand spoken or written language, communicate his or her thoughts, and follow directions)
 - c) Memory acquisition (how well a person can learn and remember new information, such as a list of words, instructions, or procedures)

Occupational Information Development Advisory Panel Content Model and Classification Recommendations

- d) Attention and distractibility (how well a person can sustain the focus of attention in a work environment with ordinary distractions)
 - e) Processing speed (how quickly a person can respond to questions and process information)
 - f) Executive functioning (how well a person can plan, prioritize, organize, sequence, initiate, and execute multi-step procedures)
2. Initiative and Persistence
- a) Attendance/punctuality (how consistently a person can leave his/her residence and maintain regular attendance and punctuality)
 - b) Initiative (whether a person can start and perform tasks once they are explained without an unusual level of supervision)
 - c) Pace/persistence (whether a person can continue performing understood tasks at an acceptable pace for a normal work week without excessive breaks)
3. Interpersonal Functioning
- a) Cooperation (the extent to which a person's interactions with others are free of irritability, argumentativeness, sensitivity, or suspiciousness)
 - b) Response to criticism (how well a person responds to criticism, instruction, and challenges)
 - c) Social cognition (whether a person can navigate social interactions well enough to respond appropriately to social cues, state his or her point of view, and ask for help when needed)
4. Self-management
- a) Personal hygiene (how well a person maintains an acceptable level of personal cleanliness and socially appropriate attire)
 - b) Symptom control (how well a person inhibits disturbing behaviors, such as loud speech, mood swings, or responding to hallucinations)
 - c) Self-monitoring (how well a person can distinguish between acceptable and unacceptable work performance)

Occupational Information Development Advisory Panel Content Model and Classification Recommendations

- B. Research Recommendations for Mental/Cognitive Demands of Work
1. Explore and consider the feasibility of conducting empirical research that quantitatively links the cognitive and mental abilities that are required to meet the demands of work.
 2. Study ways to improve methods and scales for measuring psychological and interpersonal abilities of mental residual functional capacity.
 3. Conduct validation and reliability studies of instruments related to mental residual functional capacities and occupational demands.
- C. Measurement Recommendations for Mental/Cognitive Demands of Work
1. Use of appropriate scales with sufficient specificity for the constructs considered in the mental/cognitive demands of work.
 2. Use of discrete categories and ratings for residual abilities.

PHYSICAL DEMANDS SUBCOMMITTEE

A. Data Element Recommendations for Physical Demands of Work

The Panel recommends that SSA consider these physical and sensory/motor abilities that are required to do work.

1. Physical (uni- and bilateral, where applicable)
 - a. Balancing (expansion of categories)
 - b. Bending from a sitting position
 - c. Carrying
 - d. Climbing (increased specificity)
 - e. Crawling
 - f. Crouching
 - g. Fingering
 - h. Gripping (simple, forceful)
 - i. Handling
 - j. Handwriting

Occupational Information Development Advisory Panel Content Model and Classification Recommendations

- k. Kneeling
- l. Lifting
- m. Operating Foot/Hand Controls
- n. Pinching (simple, forceful)
- o. Pulling
- p. Pushing
- q. Reaching (various levels)
- r. Rotating/twisting the neck
- s. Running
- t. Sitting
- u. Standing
- v. Stooping/Forward bending
- w. Trunk rotation/twisting
- x. Twisting wrist repetitively
- y. Using keyboard, mouse, touchpad or other manual input devices
- z. Walking

2. Sensory/Motor

- a) Feeling
- b) Hearing
- c) Smelling
- d) Speech
- e) Tasting
- f) Vision

3. Environment

The Panel recommends that SSA consider these to be potentially important environmental attributes of work.

- a. Caustic
- b. Chemicals
- c. Cold
- d. Confined spaces
- e. Dust
- f. Explosives

Occupational Information Development Advisory Panel Content Model and Classification Recommendations

- g. Fibers
- h. Flammable
- i. Fumes
- j. Gases
- k. Hazardous
- l. Heat
- m. Heights
- n. Humidity
- o. Lighting
- p. Mold/Mildew
- q. Noise
- r. Smoke
- s. Vibration
- t. Moisture

B. Research Recommendations for Physical Demands of Work

1. Research to establish a standard for repetition for physical activities.
2. Study the specificity and measures of sensory demands.
3. Explore and consider the feasibility of and need for conducting empirical research concerning environmental attributes that may restrict the ability to do work.
4. Explore and consider the feasibility of and need for conducting empirical research that quantitatively links the physical and sensory abilities that are required to meet the demands of work.

C. Measurement Recommendations for Physical Demands of Work

1. Discrete and functional levels of measurement.
2. Level, time, concentration, and severity of environmental exposures.

Occupational Information Development Advisory Panel Content Model and Classification Recommendations

3. Maximum continuous distance for dynamic movements (e.g., carrying, pushing, pulling, walking, climbing, running, crawling, etc.).
4. Maximum continuous duration of an activity that is required.
5. Refinement or creation of scales which reflect physical activity or duration which is appropriate for SSA's adjudication needs.
6. Identify the variation of physical demands within an occupation.

USER NEEDS & RELATIONS SUBCOMMITTEE

A. Extra Data Element Recommendations for the Content Model

The Panel recommends that SSA consider these data elements for the OIS content model for adjudicative purposes.

1. English (Does the occupation require the worker to communicate in English?)
2. Literacy
3. Core work activities
4. Sit-stand option or alternative postures
5. Use of assistive technology, tools, or other technology in performing work activity

B. Applied Research Recommendations

1. Develop a formal plan to conduct UNAs throughout the research and development phase of the OIS project to address the various stages of the OIS development and targeted to as many SSA internal and external users as possible.
2. When person-side instruments are developed, study the effects of the OIS content model data elements in SSA's disability

Occupational Information Development Advisory Panel Content Model and Classification Recommendations

process by comparing the use of newly-developed person-side instruments with the use of SSA's current physical and mental RFC assessments using a sample of disability claims that have already been adjudicated.

3. When the results of the pilot study of the work-side instruments are available, SSA should conduct studies of the application of these data in SSA's disability adjudication process to assess the effects of the data on both its disability process and programs (i.e., examine effects of the new OIS data, physical and mental demands of work, including work activities and other occupational data critical to RFC, work history, and transferable skills assessment).

C. Extra Data Element Recommendations for Research

The Panel recommends that SSA consider these data elements for the OIS content model for research and program evaluation purposes only, not for adjudicative purposes.

1. Worker

- a) Chronological work history
- b) Concurrent jobs or occupations held
- c) Educational attainment
- d) Gender
- e) Health insurance enrollment
- f) Hours worked weekly or daily in occupation(s)
- g) Mode of transportation
- h) Primary or other language(s)
- i) Race and ethnicity
- j) Year of birth
- k) Zip code of residence

2. Work

- a) Alternative work arrangements (e.g., telecommuting)
- b) Average shift
- c) Health insurance offered
- d) Seasonal or year-round
- e) Zip code of employment setting
- f) Language required other than English

Occupational Information Development Advisory Panel Content Model and Classification Recommendations

- D. Communication Recommendations for Users, the Public, and the Scientific Community
1. Monitor developments in new and emerging media within SSA and the Federal government.
 2. Explore alternative uses of the *Federal Register* for public comment to include the publication of the Panel's recommendations and other notices independent of the Panel's meeting announcements.
 3. Develop FAQ sheets regarding the OIS project and the OIDAP for dissemination.
 4. Summarize public comments and notify the public regarding the nature of these comments.
 5. Publish notices about the OIDAP activities and contact information in relevant professional publications.
 6. Develop branding and style sheets for a common look of the project and recognition by the public.
 7. Electronic media presence
 - a) Explore the use of social media for contact with the public about the project.
 - b) Set expectations regarding the use of any social media notifying users of such media about the authoring, anonymity, expected response, online behavior, etc. differences in the use of such media.
 - c) Maintain electronic receptive and push media to inform the public about the project.
 - d) Host online communities during the development, operationalization, and maintenance of the OIS for registered scientific, research, academic, and related users to dialogue about occupational analysis data collected to encourage the development of an independent scientific community devoted to understanding occupational analysis issues using a common metric that could suggest items for inclusion, propose work measurement instruments, and

Occupational Information Development Advisory Panel Content Model and Classification Recommendations

allow for the independent verification of SSA internal studies (e.g., pilot study, sampling plan, etc.).