

This document was attached to the Social Security Administration's Request for Information (RFI) dated June 24, 2004 – Solicitation # OSD-03-0002. The RFI is for a Revision and Updating of the Dictionary of Occupational Titles and Selected Characteristics of Occupations Defined in the Revised Dictionary of Occupational Titles.

Attachment A

Research Background:

SSA's Concerns Regarding O*NET

SSA has determined through contracted research and through further investigation that O*NET, as it currently exists, cannot be used in SSA's disability determination process (see Bibliography of research and investigations following).

It must be recognized that DOL's O*NET development staffs have faced and met an enormous challenge in the development of O*NET. The O*NET is a suitable tool for the nation's Workforce Investment Act initiatives, including career development and exploration. SSA's concerns regarding O*NET as outlined below are a reflection of how the needs of SSA's disability programs and those of private sector vocational rehabilitation professionals differ from those of career development and exploration. Therefore, to the extent that SSA's observations appear as a critique of the current O*NET, they are intended only to explain why SSA cannot use O*NET, or data based upon O*NET, in the disability evaluation process.

SSA's investigation has revealed these areas of concern that have led SSA to conclude that it cannot use O*NET as it currently exists:

- *Data Aggregation*
- *Demands and Measures of Work*

1. *Data Aggregation Issues*

The way in which occupations are grouped—or aggregated—in O*NET results in a loss of the specificity that SSA requires to make disability decisions at the medical-vocational steps in the disability evaluation process (see 20 CFR 404.1520 and 416.920).

The DOT contains over 12,000 job titles. The O*NET taxonomy is based on the Standard Occupational Classification (SOC, year 2000) system. The O*NET and SOC classifications are identical for 700 occupations; the O*NET system further breaks out some 120 SOC occupations into finer detail. Using a crosswalk to view the O*NET taxonomy in relation to the 12,000-plus DOT titles indicates that O*NET clusters nearly 9500 DOT job titles into approximately 900 groupings, referred to herein as occupational units (OUs). Many of the OUs contain a large, heterogeneous mix of jobs with a wide range of requirements in terms of what the worker must possess to perform the job, e.g., strength requirements and skill level. For example, the job requirements in one O*NET OU might span several levels of exertional capacity: sedentary, light, medium, heavy and very heavy for strength levels. Therefore, it is not possible to determine if the OU reflects work that requires the specific strength level that a claimant is capable of performing, given the limitations of his or her impairment.

Some of the key data aggregation issues involving the use of O*NET include the following:

- a) Users are unable to distinguish entry-level work from journeyman-level work within an OU. The aggregation of O*NET OUs hides the true differences among jobs that SSA needs for the comparison of disability claimants' vocational profiles and mental or physical limitations with the requirements of work.
- b) Averaging of tasks combined with the averaging of ratings, which for many OUs reflect substantial variance, results in scores that do not permit a user to make accurate assessments of whether an individual has the capacity to perform work described by that OU.
- c) Many of the O*NET OUs crosswalk to a group of DOT job titles that are grouped by factors that are not relevant to disability benefits adjudication.

Consequently, it is not possible to determine if the OU reflects work that is actually performed at the strength and skill level appropriate for any particular individual's work capacity and vocational profile.

2. Demands and Measures of Work

Approximately fifty of the 200+ O*NET descriptors of occupational demands, such as "Standing" and "Sitting" appear to be relevant to the medical-vocational process. In fact, some of these variables, like "Selective Attention" and "Conflict Situations" refer to cognitive and psychosocial demands of work that may be very useful in assessing the medical-vocational profile for claimants with mental impairments. However, the manner in which the descriptors were developed and measured prevents SSA from adopting them for disability determinations. One cannot relate the measures and scores of the O*NET descriptors to the claimant's medical information so that an assessment can be made of a claimant's ability to perform work given the limitations of an impairment.

- a) Link Between Job Demands and Human Function:
Many of the descriptors are difficult to observe in the work place and difficult to relate to a prospective worker. For example, it is unclear how a job analyst might be able to rate the minimum amount of "Static Strength" or "Problem Sensitivity" required for a given job. In addition, it is unclear as to how SSA would assess the level of "Static Strength" or "Problem Sensitivity" that an individual could perform.
- b) Terminology:
The terminology and definitions of O*NET descriptors are unlike those used by SSA, the medical profession and numerous other users, such as vocational rehabilitation specialists. The American Physical Therapy Association, in a letter to DOL's O*NET development staff, notes that "[t]he definitions frequently contradict usage in the field of medicine and physical rehabilitation, e.g., the definition of static strength. These

descriptors and their definitions would have relatively little meaning to the medical or rehabilitation clinician.”¹

c) Redundancy:

SSA is concerned about the extent to which some descriptors overlap. For example, some of the O*NET physical descriptors seem “to describe a similar construct, e.g., explosive strength vs. dynamic strength, and gross body coordination vs. gross body equilibrium.”² It is difficult to measure accurately job demands using terms that may overlap or reflect similar constructs, and the problems created by such overlap are amplified when one tries to interpret those terms and their measures to evaluate an individual’s functional abilities.

d) Scales:

The measures for O*NET descriptors involve the use of ordinal scales rather than interval scales, and can lead to problems with objectivity. For example, it is difficult to quantify Trunk Strength on a scale of 1 to 7, with anchors such as “sit up in office chair,” “shovel snow for half hour,” and “do 100 sit ups” at points 2, 4 and 6, respectively along a 7-point scale. In addition, the user cannot know what the descriptor scores mean in terms of the functioning level required to perform the occupation.

The Likert scales, used in O*NET’s incumbent questionnaires and converted into ratings of 1 to 100 for the online version of O*NET, are not linked to functional measures, such as amount of force required for a specified duration. Therefore, adjudicators and rehabilitation specialists cannot know what a score of 48 in Trunk Strength means, as reported for Food Preparation Worker (O*NET-SOC code 35-2021.00).

¹ Bainbridge, D.B., Director of the Department of Practice, American Physical Therapy Association, Alexandria, VA. June 12, 2001. Letter to James F. Woods, Chief of the Division of Evaluation and Skills Assessment, Office of Policy and Research, Employment and Training Administration, Department of Labor.

² Bainbridge, Ibid.

Bibliography of Research and Investigations Regarding the DOT and /or the Use of O*NET

Numerous experts have reported their observations and the results of their work regarding the composition and nature of occupational information that can adequately reflect work as it is performed in the U.S. economy, as well as the use of occupational data in disability determinations or vocational rehabilitation. References follow.

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