Occupational Information Development Advisory Panel

Findings Report:

A Review of the National Academy of Sciences Report

A Database for a Changing Economy:

Review of the Occupational Information Network (O*NET)

June 28, 2010

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Executive Summary

Based on a January 2010 request from the Social Security Administration (SSA), the Occupational Information Development Advisory Panel (OIDAP or Panel) reviewed the National Academy of Sciences (NAS) report, *A Database for a Changing Economy: Review of the Occupational Information Network (O*NET)*, for relevance and lessons learned useful to SSA's development of an occupational information system (OIS) to replace the aging *Dictionary of Occupational Titles* (DOT) in the disability adjudication process. The OIDAP describes the background of the request, the OIDAP methodology for reviewing the O*NET Report, its findings and lessons learned, and offers SSA areas for consideration.

Common Ground: NAS Panel and OIDAP Areas of Agreement

- 1. The NAS panel's review of the use of the O*NET in disability adjudication reached the same conclusion as that of other national governmental bodies, the OIDAP, and SSA in that the O*NET in its current form is not suitable for disability adjudication.² (See pp. 7-8 of this report)
- 2. The NAS and OIDAP reports reached the common conclusion that significant changes would need to be made to the O*NET in order for it be suitable for disability adjudication. For example, changes to the O*NET content model, the Behaviorally Anchored Rating Scales (BARS), and the level and unit of analysis would all be required. These changes would involve a costly revalidation of the entire O*NET system and have the potential of negatively impacting the ability of the O*NET to serve the purposes for which it was designed. (See p. 8 of this report)
- 3. The O*NET Report included a variety of important conclusions regarding occupational database maintenance that were similarly reached by the OIDAP for the OIS's development including:

¹ Given how past and current studies of occupational databases are referred to by the audiences who may read this report, the OIDAP has chosen to refer to the O*NET review as being conducted by the NAS not by the National Research Council as it is also sometimes referenced.

² p. 161, National Academy of Sciences (NAS) report, A Database for a Changing Economy: Review of the Occupational Information Network (O*NET),

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- focusing on collecting, maintaining, and publishing high-quality data;
- considering input from the scientific and user communities on the research and usability processes;
- developing plans and procedures for refreshing the occupational database;
- using technology for communication or for the delivery platforms to users; and,
- exploring the use of Internet-based methods for developing an online user community. (See p. 9 of this report)
- 4. The NAS staff deferred to the expertise of the OIDAP for SSA's occupational data needs. The NAS panel did not contain a subject matter expert in SSA disability adjudication, in private sector disability adjudication needs, or in the use of occupational information in disability applications in general. (See pp. 9-10 of this report)

Going Forth: OIDAP Areas of Future Exploration

- 5. The application of O*NET in SSA's disability adjudication process would require SSA to change its definition of "skills" as well as the way skills are assessed in SSA's disability programs. The manner in which O*NET defines skills and conceptualizes skills transference conflicts with SSA's disability program requirements, its regulatory definition of skills, and the regulatory rules by which skills are considered in disability claims. (See pp. 10-11 of this report)
- 6. The O*NET is a general purpose database addressing the needs of the primary users (e.g., workforce development, economic development, career development, academic and policy research) for which it was designed. The disability adjudication data needs and purposes are very different and not a subset of the general purpose database. (See pp. 11-16 of this report)

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- 7. The O*NET Report did not articulate the evaluation criteria that the NAS panel may have used for its evaluation of the O*NET. (See p. 16 of this report)
- 8. The forensic defensibility of using O*NET data for disability adjudication was not addressed by the NAS panel. (See pp. 16-17 of this report)

Considerations³

Based on these findings, and our review of the O*NET Report in general, the OIDAP upholds its September 30, 2009 recommendations to SSA. The OIDAP further advises that SSA should consider:

Internal Expertise Unit

 Cautious progress on the R&D agenda for the OIS until the scientific expertise unit recommended by the OIDAP in its September report has been established. As noted in the O*NET Report, developing a research agenda and its priorities would be advisable.

Information Sharing with Other Government Agencies

- 2. Continued and expanded SSA and DOL cooperation on mutually beneficial areas, such as sampling and/or data collection. This cooperation may include examining how DOL has historically developed and used occupational data for its own labor-related adjudicative needs.
- Collaboration with other Federal agencies, such as the Department of Defense, Office of Personnel Management, Rehabilitation Services Administration, and the Census Bureau, regarding work analysis methods or other studies, surveys, or information of value to the development of the OIS.

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³ See pp. 17-18 of this report for discussion.

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Ethical and Legal Concerns Regarding O*NET and DOT

4. Consideration of potential ethical and legal concerns that might arise from repurposing O*NET or by pursuing an update to the aging *Dictionary of Occupational Titles* framework for use in the disability adjudication process.

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Introduction

At the OIDAP's inaugural meeting, Commissioner Astrue requested that the Panel provide the SSA with its content model and classification recommendations by the end of FY 2009. The Panel delivered the *Content Model and Classification Recommendations for the Social Security Administration Occupational Information System* report to Commissioner Astrue on September 30, 2009.⁴

As the OIS project transitioned into the research and development (R&D) phase, a January 19, 2010 letter from Commissioner Astrue requested further advice and recommendations from the OIDAP regarding the:

- development of sampling and data collection plans for R&D;
- 2. creation of a process for recruiting job analysts, including methods for certification criteria and training;
- 3. assistance in establishing associations between human function and the requirements of work; and,
- 4. review of relevant documents or reports SSA identifies that may affect or inform its work on the OIS.

This report addresses a request made by SSA at the January 2010 quarterly meeting that the OIDAP review the NAS report, *A Database for a Changing Economy: Review of the Occupational Information Network (O*NET)* ⁵ (herein referred to as the "O*NET Report"). The purpose of the review was to examine data quality, sampling, and other issues that might be useful to the development of SSA's OIS.

The O*NET Report also contains topics that may be helpful to future OIS R&D activities. Thus, these technical topics will be addressed in subsequent OIDAP reports as appropriate, such as in the areas of measurement, sampling, data collection, and evaluation metrics.

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⁴ Because of the OIDAP's Federal Advisory Committee Act status, subcommittees do not recommend directly to SSA, but to the OIDAP. These recommendations are deliberated and voted upon by the entire Panel. The subcommittee reports contained in the OIDAP's report appendices were finalized on September 1, 2009 for Panel deliberations and voting on September 16-17, 2009. Therefore, the recommendations by the OIDAP to Commissioner Astrue on September 30, 2009 are in the *Final Report and Recommendations* section, or the first 68 pages of the report, not in the appendices. The recommendations for the content model data elements were meant as a starting point for further development and refinement by SSA through the R&D process. The OIDAP report can be retrieved from http://www.ssa.gov/oidap/panel_documents.htm ⁵ O*NET Report, Retrieved from http://www.nap.edu/catalog.php?record_id=12814

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Background

A decade after the release of the O*NET, the Employment and Training Administration of the US Department of Labor (DOL) commissioned a review of the database by the NAS. This was the first time in three decades that an independent body reviewed a civilian occupational information database in the United States since the NAS conducted a similar review of the DOT in 1980.⁶

The OIDAP applauds the DOL for opening the O*NET to user, stakeholder, and public review and critique. The process can only serve to strengthen the database for the workforce development and similar purposes for which it was primarily developed.⁷

OIDAP Methodology for Review of the O*NET Report

The Prepublication Copy/Uncorrected Proofs of the O*NET Report were released by the NAS to the public on December 4, 2009. On January 8, 2010, in their professional roles outside of the OIDAP, two Panel members (Mary Barros-Bailey, PhD and Mark Wilson, PhD) met with the NAS O*NET study staff to clarify factual inaccuracies in the O*NET Report. In addition, two Social Security Administration staff (Associate Commissioner Richard Balkus and Occupational Information Development Project Director Sylvia Karman) met with the NAS staff on January 12, 2010 to provide information regarding the disability adjudication process that was inaccurately reflected in the O*NET Report. At both meetings, the NAS staff indicated that only factual inaccuracies could be corrected because the O*NET review panel had already disbanded.

At the January 22, 2010 OIDAP quarterly meeting, the Panel discussed inviting NAS staff to present their findings at the next OIDAP meeting based upon SSA's request to the OIDAP to review the O*NET Report. Between quarterly meetings, the OIDAP Chair requested that the Panel review the O*NET Report in its entirety in preparation for a presentation by NAS staff at the next March quarterly meeting.

On March 25, 2010, Ms. Margaret Hilton, Study Director, and Mr. Tom Plewes, Associate Study Director at the NAS for the O*NET panel, presented to the OIDAP.

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⁶ This report is often called the "Miller Study." Retrieved from http://www.nap.edu/openbook.php?record_id=92&page=R1

⁷ pp. 12, 24, 25, 36, and 37, Appendix B.

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See Appendices A and B for the NAS presentation materials and transcript. The final O*NET Report became available to the public and to the OIDAP on May 11, 2010. The preliminary report drafted by the OIDAP Chair was reviewed by the Executive Subcommittee on June 9, 2010 and deliberated upon by the full Panel on June 10, 2010.

A Word about Timing

An important insight arising out of the March 2010 presentation by Ms. Hilton and Mr. Plewes centered on the timing of the O*NET panel's deliberations and recommendations that were completed by the end of April 2009, 8 or five months before the OIDAP September 30, 2009 report was available. Indeed, the NAS panel had disbanded by August 2009 – when their report entered NAS's internal review process. The O*NET Report was not released in the prepublication format until nearly three months after the dissemination of the OIDAP report. The timing of both panel processes and reports could lead to the mistaken impression that the NAS panel took OIDAP's findings and recommendations into account when it actually did not. 10

The NAS staff referenced the OIDAP report and recommendations as an attempt to be complete in the literature citing: 11 however, the technical working papers and other research considered by the OIDAP, as well as the OIDAP report and recommendations, were never read or considered by the O*NET panel in its deliberations or when arriving at its recommendations. The NAS staff clarified the timing and referencing of the OIDAP report when presenting in March 2010 and via a footnote 12 in the final copy of the O*NET Report. Ms. Hilton indicated that, should the NAS panel have considered OIDAP's findings, these would presumably have affected their conclusions. ¹³ For a timeline of each panel's process, see Appendix C.

⁸ p. 61, Appendix B.

pp. 60, 129, and 130. Appendix B.

¹⁰ pp. 16, 130-131, and 146, Appendix B. ¹¹ p. 61, Appendix B.

¹² p. 161, O*NET Report.

¹³ p. 62, Appendix B.

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OIDAP Findings

Review of the O*NET Report by the OIDAP resulted in eight general findings that are detailed in this section.

Common Ground: NAS Panel and OIDAP Areas of Agreement

FINDING #1: The NAS panel's review of the use of the O*NET in disability adjudication reached the same conclusion as that of other national governmental bodies, the OIDAP, and SSA in that the O*NET in its current form is not suitable for disability adjudication.

Pages 11 and 12 of the OIDAP report identify the occupational data requirements of SSA's disability programs including the need to:

- 1. reflect national existence and incidence of work:
- 2. reflect work requirements;
- 3. be legally defensible; and,
- 4. meet the following technical, legal, and data requirements:
 - a) occupations aggregated at a level to support individualized disability assessment;
 - b) a cross-walk to the Standard Occupational Classification;
 - c) precise occupationally-specific data;
 - d) core work activities;
 - e) minimum levels of requirements needed to perform work;
 - f) observable and deconstructed measures:
 - g) a manageable number of data elements;
 - h) sampling methodology capturing the full range of work;
 - i) inter-rater agreement justifying data inference;
 - j) data collection of high quality data;
 - k) valid, accurate, and reproducible data;
 - I) whether core work activities could be performed in alternative ways; and,
 - m) terminology that is consistent with medical practice and human function.

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¹⁴ See SSA working papers *Developing an Initial Classification System* and *Social Security Administration's Legal, Program,* and *Technical/Data Occupational Information Requirements*. Retrieved from http://www.ssa.gov/oidap/panel_documents.htm and also see p. 50, Appendix B.

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The NAS panel did not consider these occupational data needs for SSA's programs, as confirmed in their staff's presentation to the OIDAP in March 2010. 15 Like SSA and many other independent and government bodies that have previously arrived at the same conclusion (General Accounting Office, 2002a, 2002b; Institute of Medicine, 1998, 2002; OIDAP, 2009; Social Security Advisory Board, 2001), the O*NET Report¹⁶ agrees that "... disability determination was an important use of the DOT and because O*NET was created to replace the DOT, it seems fair to conclude that O*NET has failed to replace the DOT in this particular usage." (p. 161, O*NET Report)

The NAS staff added that, "... we didn't look in-depth at this whole disability question. We took a quick look, and we thought it needed further study."¹⁷

FINDING #2: The NAS and OIDAP reports reached the common conclusion that significant changes would need to be made to the O*NET in order for it be suitable for disability adjudication.

Both the O*NET Report and the OIDAP conclude that a variety of measurement and scaling issues of descriptors in O*NET would be highly problematic for disability adjudication. The NAS staff and the OIDAP specifically focused on the application of BARS within the O*NET during the March 2010 NAS presentation. 18

The O*NET Report correctly identifies the problematic issues (e.g., dichotomous definitions, complex terminology, confounded difficulty levels, no clear continuum, etc.)¹⁹ associated with BARS in general, and specific to disability adjudication.²⁰ However, the staff could not identify a way in which these BARS could be changed with disability adjudication occupational information needs in mind without revalidating the entire O*NET database that cost \$75M over the last dozen years. not including the cost of its development.²¹ Neither could we. Future costs associated with the disruption this redesign would have upon the primary users identified by the O*NET's mission is incalculable. To the extent that SSA would

¹⁵ p. 50, Appendix B.

p. 161, O*NET Report.

p. 78, Appendix B.

¹⁸ pp. 30, 67-76, and 110, Appendix B.

рр. 30, 61-76, and 116, Appendix B.

19 pp. 63, 74, 75, 76, 87, 166, 177, 196, О*NET Report.
20 p. 30, Appendix B.

pp. 69, 71, and 110, Appendix B. Note that on p. 71, Mr. Plewes indicated, "I don't believe you can fundamentally change the anchors and retain the system as it is. But the panel didn't look at that." The discussion on p. 110 indicates how changing the problematic BARS would mean having to revalidate the ratings across the entire O*NET system.

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consider the use of BARS, it would need to ensure when and how BARS would be suitable for an OIS developed for disability adjudication.

FINDING #3: The O*NET Report included a variety of important conclusions regarding occupational database maintenance that were also similarly reached by OIDAP for the OIS's development including:

- focusing on collecting, maintaining, and publishing high-quality data;
- considering input from the scientific and user communities on the research and usability processes;
- developing plans and procedures for refreshing the occupational database;
- using technology for communication or for the delivery platforms to users: and.
- exploring the use of Internet-based methods for developing an online user community.

FINDING #4: The NAS staff deferred to the expertise of the OIDAP for SSA's occupational data needs.

The NAS panel did not include a subject matter expert with a specialty in disability adjudication in the private or public sectors, ²² or in particular to SSA's disability program needs. On March 26, 2009, Ms. Sylvia E. Karman, the Director of the Occupational Information Development Project, presented to the NAS panel about the need for occupational information in SSA's disability programs.²³ Beyond the one-hour presentation, the NAS panel did not review or consider other currentlyavailable working papers or reports specific to the occupational information needs for disability adjudication; therefore, during the March 2010 presentation to the Panel, the NAS study staff deferred to the OIDAP for expertise in the use of occupational information as pertinent to the disability adjudication process.²⁴

The O*NET Report's first recommendation in Chapter 8 called for the development of an interagency task force whose first order of business would be to study SSA's occupational information needs. According to Mr. Plewes, this recommendation has

²² p. 16, Appendix B.

²³ p. 160, O*NET Report. ²⁴ pp. 33, 55, and 59, Appendix B.

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already been performed by the OIDAP's review.²⁵ Based on the review of SSA's needs, the OIDAP voted unanimously in 2009 that a new OIS was needed to replace the DOT in disability adjudication. O*NET was not recommended as that replacement.

Going Forth: OIDAP Areas of Future Exploration

FINDING #5: The application of O*NET in SSA's disability adjudication process would require SSA to change its definition of "skills" as well as the way skills are assessed in SSA disability programs.

The NAS panel cited various conflicting and confounding definitions of skills within the O*NET content model.²⁶ Broad conclusions regarding transferability of skill may make sense for the primary users of O*NET data, such vocational rehabilitation counselors who may need to consider broad brushstrokes of occupational information as a starting point in the vocational exploration process to which they may add other information (e.g., results of psychometric assessments or employer contacts) when developing a rehabilitation or return-to-work plan that may include educational or other vocational interventions to develop a client's or evaluee's vocational potential. However, the same conclusions are contraindicated for disability adjudication. For example, the O*NET Academy²⁷ describes a transferability of skill tool called TORQ that was used in Indiana to assist laid off workers in exploring skills transference to other work. The podcast describes a case of a recreational vehicle team assembler and finds transferability of skill to the work of a dental hygienist. This conclusion of transferability of skill is highly problematic for SSA as its process does not allow for considering retraining, accommodations, or other vocational rehabilitation interventions in disability adjudication. ²⁸ The NAS panel did not consider transferability of skill within the disability adjudication process or how the design of the O*NET could results in data that could be highly problematic for work experience and transferable skills analyses at Steps 4 and 5 in the sequential evaluation process.²⁹

p. 33, Appendix B.

p. 32, O*NET Report.

O*NET Academy is accessible at http://www.onetacademy.com/faq/contentpartner.cfm

²⁸ pp. 116-117, and 120, Appendix B. ²⁹ p. 117, Appendix B.

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The treatment of skills and skills transferability with the use of a general purpose database such as the O*NET could potentially result in inaccurate decisions and increased denials in the sequential evaluation process. Again, the O*NET was not designed to meet disability adjudication needs. Changing the O*NET for disability adjudication needs would make it problematic as a tool for the purposes for which it was created and where this kind of transferability of skills method may be helpful.

With respect to the issue of skills and skills transference in its September 2009 report, the OIDAP recommended data elements to include in the content model and data collection effort that best fit with the disability adjudication process. Specifically, by its recommendations, the OIDAP attempted:

to distinguish the essential components of the definition of what a skill is and how a skills analysis or work experience analysis is performed and [to] separate them into those elements or processes for which occupational data could be gathered. By doing so, we are able to study the resulting data collected vis-à-vis current paradigms of how skills transfer or could transfer, as well as to provide the opportunity to potentially explore other methods that might result in greater face and predictive validity that are based on empirical data. We note that SSA uses the "transferability of skills analysis" at Step 5 in very limited circumstances. We mean to include the consideration of an individual's ability to do past work or other work as currently conceived by SSA (unskilled, semi-skilled, or skilled). ³⁰ (p. 48, OIDAP Report)

FINDING #6: The O*NET is a general purpose database addressing the needs of the primary users (e.g., workforce development, economic development, career development, academic and policy research) for which it was designed. The disability adjudication data needs and purposes are very different and not a subset of the general purpose database.

Different Missions, Different Users

The assumption that the creation on an OIS would be parallel, duplicative, or redundant³¹ to the existence of the O*NET is incorrect and does not consider the

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³⁰20 CFR 404.1568(d) and 416.968(d) for SSA definition of skills and transferability of skills.

³¹ p. 161, O*NET Report.

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differing missions, user needs, purposes, or other design considerations of each occupational database. The NAS panel inferred the O*NET's mission as DOL needing to "[m]eet the competitive labor demands of the worldwide economy by enhancing the effectiveness and efficiency of the workforce development and regulatory systems that assist workers and employers in meeting the challenges of global competition." (p. 6, O*NET Report). On the other hand, the mission of SSA's OIS is to provide specific physical and mental job demands and measures that are directly related to SSA's evaluation of limitations resulting from disability claimants' impairments.

Consequently, unlike the OIS that is being developed by the SSA specific to one purpose – the disability adjudication process and the users specific to that system – the first paragraph of the O*NET Report states that the O*NET was developed by the DOL not only for use within some of its programs, but also for many users in the national economy identified as:

- workforce development
- economic development
- career development
- academic and policy research
- human resource management³²

Because of the many users for which the O*NET content model was designed, its development of its design took considerably longer than is anticipated for the OIS's development. O*NET users utilize the general purpose³³ data as the starting point within their processes upon which further research and information may be required whereas the OIS needs to provide very specific information to assist decision-making at the n=1 level.

<u>Different Purposes and Needs: Econometric v. Ergometric System Designs</u>

Understanding the occupational data needs of specific users is important to concluding whether the O*NET fits that need well. For example, a RAND

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³² The O*NET Report states, "a primary goal of O*NET is to help state workforce development offices carry out their dual mission of assisting individuals in gaining challenging, rewarding work (and any required education and training) and assisting employers in recruiting, hiring, and developing skilled workers." p. 6. Also see pp. 12, 24, 25, 36, and 37, Appendix B.

³³ pp. 23, 25, 27, 29, 70, and 81, Appendix B.

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Corporation study (Hansen, Campbell, Pearlman, Petho, Plewes, & Spenner, 2008) assessing the development of a common framework for the various military occupational information systems³⁴ concluded that:

... no single existing system is likely to be fully appropriate for DoD's needs All of the existing systems ..., including the O*NET, provide information that is too general and abstract. If DoD wishes to develop a uniform [occupational analysis] system applicable across the services, their components, and the civilian workforce, the need to build the system in-house seems inescapable. This is the only way it could be substantively meaningful to users and stakeholders. 35 (p. 20, Rand Report)

The O*NET Report and the 2008 report by the RAND Corporation both indicated that the design of an OIS is specific to its purpose. The RAND report best describes this initial and crucial decision in the development of any occupational database when it states:

A major requirement for choosing among occupational analysis system options is understanding, in fairly specific terms, the objectives or purposes to be served by the system. Indeed, this understanding is needed before any truly meaningful discussion of key underlying systems concepts and issues can occur.³⁶ (p. xiii, Rand Report)

Further, the RAND panel posited:

When considering alternative [occupational analysis] systems ... there are no unequivocally "right" or "wrong," or "better" or "worse," choices in the absence of specification of the system's intended purposes and applications. Each type of process, job descriptor category, and level of analysis has utility for different purposes and is therefore relatively more or less suitable for different applications. Specification of such purposes is in turn a function of the particular needs of potential users. Consequently, such needs must also be

36 RAND report.

³⁴ According to the RAND study, "The Army, Navy, Air Force and Marine Corps have separate occupational systems for their officers and enlisted workforces while the civilian workforces follow the patterns of the federal workforce and use that occupational system. As a result, DoD uses over 15 different occupational systems with over 6,000 occupational definitions."

⁽p. 32)
35 RAND report. Retrieved from http://www.rand.org/pubs/technical_reports/2008/RAND_TR610.pdf

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specified in some detail, or an [occupational analysis] system may not meet the needs for which it was developed. ³⁷ (p. 14, Rand Report)

We agree. Thus, the purpose, program, data, technical, and legal requirements for the use of occupational information in SSA's disability adjudication process³⁸ were considered by the OIDAP in arriving at its conclusions and recommendations, but could not have been considered by the NAS panel because their members did not have access to that information at the time of their deliberation to consider such design questions as:

- 1. Descriptor coverage: work- and worker-oriented attributes;
- 2. Descriptor level of analysis: breadth or narrowness of descriptor definition;³⁹
- 3. Descriptor application: work, workers, both;
- 4. Descriptor specificity: across all jobs and/or job specific;
- 5. Descriptor common framework needs; and,
- 6. Descriptor metrics or scales.

When considering how DOL and SSA need to answer these design questions based upon their distinct purposes and data needs, the OIDAP found the answers were fundamentally different. ⁴⁰ The polarity in the design and data needs between the O*NET and an OIS for disability adjudication is important to comprehend. Without recognizing the needs of each primary user or user group, broad associations of descriptors – or the data collected with these – are meaningless. For instance, the O*NET Report states that there is:

... almost perfect equivalence between the O*NET descriptors of near vision, far vision, visual color discrimination, and depth perception and the RFC⁴¹ assessment (descriptors of near acuity, far acuity, color vision, and depth perception). The scales and definition of scale points, however, are still quite different between the two scales. (p. 165, O*NET Report)

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³⁷ RAND report.

³⁸ p. 33, Appendix B.

The unit of analysis for each occupational analysis purpose is distinctly different. For the O*NET, this unit of analysis is the occupation level. For SSA, to meet its burden of proof at Step 5 of the sequential evaluation process, the unit of analysis is at the job level. This essential design decision is critical to understand in understanding whether a system is designed econometrically or ergometrically.

⁴⁰ p. 66, Appendix B.

⁴¹ p. 56, Appendix B indicates that the O*NET panel did not consider the MRFC in their review of the O*NET's use in disability adjudication.

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For the casual observer who might not understand human function vis-à-vis sensory criteria, near vision may seem almost perfectly equivalent to near acuity and far vision may also seem almost perfectly equivalent to far acuity, when in reality they are functionally different. If these data elements are included in an occupational analysis system, their measurement with respect to work activity may not be adequately captured if the differences are not recognized by those designing the system. 42 The difference is not a matter of nuance; rather, it is a matter of understanding occupational data vis-à-vis its application in the disability context that involves the appropriate measurement of human function.

Understanding human function and disability is important to correctly determine appropriate occupational analysis design for database used in disability adjudication and to make decisions regarding the proper unit of analysis. The O*NET does not use job level data collection that is essential to the disability adjudication process. The general purpose design of the O*NET was appropriate for the needs of its primary constituents. 43 but not as part of a forensic decision-making process requiring greater specificity and certainty in the person-job match that is central to the individualized assessment.

These essential differences in database designs are best illustrated by understanding econometric and ergometric occupational database system designs and which results in the data needed by users. See Appendix D for a model and table indicating the differences between econometric and ergometric designs in occupational analysis systems.

The O*NET's main constituency, workforce development users, identified a need for a higher level of aggregation than exists in the present O*NET.44 The broad and more abstract data needs of workforce development users led to higher aggregation in O*NET, a result of an econometric design approach. These broader occupational categories are mostly aligned with the SOC and, thus, can be linked with other data collected at that level. However, this level of aggregation is counter to the needs of an OIS for disability adjudication. ⁴⁵ This design feature of the O*NET is appropriate

⁴² p. 31, Appendix B.

p. 31, Appendix B. p. 23, Appendix B. p. 37, Appendix B.

⁴⁵ pp. 55 and 108, Appendix B.

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for workforce development, but not for disability adjudication that needs an ergometric design for data generalizability to a single individual – the claimant – not to the American workforce.46

Regarding the overall OIS framework, the OIDAP opined in its 2009 report that the creation of an OIS for disability adjudication did not mean starting from scratch, but building upon the best features of the DOT, the O*NET, and other occupational information systems to meet the purpose and needs for which the occupational data is required.⁴⁷ Insofar as the O*NET is tied to the Standard Occupational Classification (SOC) and the OIS should crosswalk to that classification as was recommended by the OIDAP, the SOC could serve as a shared bridge to anyone wishing to connect to the O*NET-SOC descriptor framework.⁴⁸ In its 2009 recommendation to SSA regarding an initial work taxonomy framework, the OIDAP Taxonomy and Classification Subcommittee utilized the dimensions associated with the O*NET and SOC work activities as part of its framework development. These dimensions constituted approximately 30% of the recommended taxonomy.

FINDING #7: The O*NET Report did not articulate the evaluation criteria that the NAS panel may have used for its evaluation of the O*NET.

Although the O*NET Report identifies how the NAS panel went about its charge. 49 it is unclear what evaluation criteria was used by the panel in its review of the O*NET. This might have been beneficial to the reader as it was with the 1980 NAS report reviewing the DOT.⁵⁰

FINDING #8: The forensic defensibility of using O*NET data for disability adjudication was not addressed by the NAS panel.⁵¹

For human resources management applications discussed in Chapter 7 of the O*NET Report requiring the need to meet legal criteria, the O*NET was found not to be legally defensible for the same reasons it would not be defensible in disability adjudication. The O*NET was never designed to be forensically applied, nor does it

 $^{^{46}}_{-}$ pp. 37, 38, 103, and 109, Appendix B.

p. 17, OIDAP report.

⁴⁸ p. 90, Appendix B. ⁴⁹ pp. 16-17, O*NET Report.

⁵⁰ See Miller, et al.

⁵¹ pp. 57 and 88, Appendix B.

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need to be for the purposes for which it was created. Furthermore, the NAS staff concluded that the various sources "... may or may not be the best representation of work that is performed ..." ⁵² although, as noted earlier, an important consideration for SSA's occupational data needs for legal defensibility is that it reflect national existence and incidence of work. ⁵³

Chapter 8 in the O*NET Report refers to a 2000 study by one of the O*NET developers, the American Institute of Research (Gustafson & Rose, 2003), that was commissioned by the SSA to review O*NET's suitability for use in disability adjudication. The article concludes that "a version of O*NET [could be] legally defensible and acceptable to decision-makers and claimants alike" (p. 15). It is unclear what premises were considered to arrive at this conclusion or if the need for ergometrically-derived data was evaluated vis-à-vis its application at the n=1 individualized assessment level. For instance, the article posits Static Strength as an example of a suitable descriptor among the 54 O*NET descriptors evaluated when SSA has routinely cited this descriptor as an example of a descriptor that is too holistic and abstract for disability adjudication purposes.

⁵² p. 39, Appendix B.⁵³ pp. 11-12, OIDAP report.

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Additional Lessons Learned: Considerations for SSA

Of particular interest to the OIDAP was the timeline for the development of the O*NET. Because of the massive nature of the O*NET content model, the Advisory Panel for the Dictionary of Occupational Titles (APDOT) took three years to arrive at its recommendations to DOL. Eight years elapsed from the time of the APDOT's creation until DOL released its first prototype of the content model and data collection began.⁵⁴ By comparison, an OIS for SSA needs a simpler ergometricallydesigned occupational analysis system with a content model inclusive of discrete descriptors, that will not require the massive undertaking of O*NET's development or the prolonged timeline. It does call, however, for a system that is designed to produce high quality, forensically-defensible data, which is a scientifically-based and designed product. General Recommendation Four in OIDAP's September 2009 report called for internal and external expertise for the development and maintenance of the OIS. As Ms. Hilton indicated, the vision for the development of the O*NET was also "... to have some permanent professional people within the Department of Labor who could oversee the development of a better and improved database for the future."55 This type of unit was likewise recommended in 1980 with the NAS review of the DOT. 56 Such a unit has not historically existed within SSA. Because of the forensic nature of the SSA OIS, the OIDAP advises that SSA establish a steady but cautious research timeline. It further counsels against undue acceleration of the R&D agenda until the scientific expertise unit proposed in the September 2009 report has been created and the development of a plan and priority schedule for research is established.

The OIDAP understands SSA has been meeting with or briefing DOL about the OIS since before the OIDAP's inaugural meeting, including meeting with the Employment and Training Administration and more recently also the Bureau of Labor Statistics. Although it is clear that the purpose and needs of each occupational database are due to very different econometric v. ergometric design features, nonetheless, the OIDAP finds value in the O*NET Report's recommendation calling for increased cooperation between SSA and DOL possibly involving areas of sampling and/or data

p. 45, Appendix B.
 p. 18, Appendix B.
 pp. 218-219 of the Miller, et al. study on the DOT recommended that "A permanent, professional research unit of high quality
 pp. 218-219 of the DOT as well as basic research ..." and goes on to further describe the composition of the unit to include PhD-level scientists (e.g., sociologists, psychologists, statisticians, etc.), BA- or MA-level research assistants, and support staff.

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collection that may be mutually beneficial to each agency. SSA may also wish to explore with DOL how that agency has historically developed, maintained, and applied the occupational data it collects for its own forensic and adjudicative needs (e.g., US Department of Labor, Office of Administrative Law Judges for labor-related immigration cases). SSA may consider the development of ethical standards, data protection, or other systems to safeguard the integrity of the occupational data it collects for its disability programs. SSA may also benefit from collaboration with other Federal agencies, such as the Department of Defense, Office of Personnel Management, Rehabilitation Services Administration, and the Census Bureau, regarding work analysis methods and other information of value to the development of the OIS.

Lastly, the OIDAP raises concerns regarding potential research and assessment ethics⁵⁷ and legal considerations in repurposing the O*NET. The same concerns hold true in applying the aging *Dictionary of Occupational Titles* to the disability adjudication process without regard to updated and current research, psychometric, and technology opportunities to meet the specific occupational data needs implied by the individualized assessment process. Until an occupational information system is developed that can meet individualized assessment purposes, and despite the DOT's flaws, today it still remains, "... the most comprehensive set of occupational characteristics currently available." ⁵⁸ (p. 195, Miller Study)

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 ⁵⁷ See the research and assessment standards in the codes of ethics for the American Counseling Association, American Psychological Association, and the Commission on Rehabilitation Counselor Certification.
 ⁵⁸See pp. 173 and 195, Miller, et al.

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Acknowledgements

We appreciate the fortunate timing a review of the O*NET presents to the OIDAP when we are at the genesis of providing SSA with our advice and recommendations regarding the OIS's R&D. We are grateful for DOL's willingness to make the database available for professional and public review and critique.

The contents of this report are not meant as a criticism of the use of the O*NET for the primary purpose for which it was created and should not be interpreted as such. Based on our study and review of SSA's occupational information needs, the purpose of this report was to review lessons learned through the O*NET's database study by the NAS that might be helpful to our advice and recommendations to SSA. Emerging needs in the OIS's R&D process may warrant further review of the O*NET Report to inform OIDAP future discussion and deliberations on technical matters.

We especially appreciate the NAS panel's acknowledgement of the unique needs of SSA for occupational data that are not met with the econometric design of the O*NET. Despite having completed their recommendations and disbanding as a panel before they had the opportunity to review SSA working papers or OIDAP's recommendations, the NAS panel elevated the issue of occupational data specific to disability adjudication to a national level that has served to ultimately clarify the need for the development of an ergometrically-based OIS for SSA's disability adjudication process. We thank the NAS study staff for their graciousness and willingness to present to the OIDAP, and particularly for their inclusion of footnotes in the final report to settle potential misunderstandings conveyed by the timing of their process and the publication of their uncorrected proofs and final reports.

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Conclusions

Understanding the differences in occupational systems designs is inherently a technical subject. Casual observers who do not have intimate knowledge and understanding of work analysis as applied to the residual functional capacity of an individual may not grasp the nuances in system design and data quality, or how this may affect generalizability to the claimant in SSA's individualized assessment. We suspect that this chasm in knowledge will continue to occasionally bring those who do not understand why the O*NET and OIS designs are very different, almost complementarily so based on the needs of their primary users, to ask "Why not a "tweaked" O*NET for disability adjudication?"

As noted in our September report, "Undoubtedly, there are some aspects of the DOT and the O*NET occupational information systems that are helpful to the development of the OIS tailored to SSA's disability adjudication needs." (p. 19, OIDAP Report). Our recommendations in that report included some features of both systems that met SSA's legal, program, technical, and data needs and already considered 100% of the O*NET and SOC work activities in its recommended work taxonomy framework, or constituting about 30% of that recommended starting taxonomic framework. The recommendations went further by introducing features for the new OIS to allow it to function within the context of its forensic intent and application. What we learned from the O*NET Report serves to uphold our 2009 general recommendations and to provide additional insights to further assist with our mission as identified in our charter.

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APPENDIX

Appendix A: NAS Presentation Slides to the OIDAP

Appendix B: Transcript from the Occupational Information Development Advisory Panel Quarterly Meeting, March 25, 2010—Presentation of Margaret Hilton, Study Director and Senior Program Officer Center for Education, The National Academies and Mr. Thomas J. Plewes, Associate Study Director and Senior Program Officer, Committee on National Statistics, The National Academies

Appendix C: Timeline of NAS and OIDAP Processes

Appendix D: Econometric v. Ergometric Occupational Analysis Designs

TAB A

THE NATIONAL

A Database for a Changing Economy: Review of the Occupational Information Network (O*NET) Committee on National Statistics Center for Education

THE NATIONAL ACADEMIES

Advisers to the Nation on Science, Engineering, and Medicine

National Academy of Sciences National Academy of Engineering Institute of Medicine National Research Council

Study Charge from DOL

- Document and evaluate current and potential uses of O*NET in:
 - workforce development
 - HRM
 - research
- Explore linkage to SOC and other data sets

Study Charge

- Identify improvements, especially in:
 - currency
 - efficiency
 - cost-effectiveness
 - use of new technology

Panel Selection

THE NATION

- Consulted NRC standing committees and others to identify experts
- Balance of expertise, views of O*NET
- NAS President approved provisional slate
- Provisional slate posted for public comment
- Confidential bias and conflict discussion at first meeting
- Final approval of panel members

THE NATIONAL

Panel Members

- Nancy Tippins (Chair), Valtera Corporation
- David Autor, M.I.T.
- John Campbell, University of Minnesota
- Keith Ewald, Ohio Job & Family Services
- Richard Froeschle, Texas Workforce Commission
- Les Janis, Georgia State University
- Virginia Lesser, Oregon State University
- Kerry Levin, Westat
- Kenneth Pearlman, Independent Consultant
- Ann Marie Ryan, Michigan State University
- Juan Sanchez, Florida International University
- William Shobe, University of Virginia

CADEMIES

Study Process

- Literature Review
- Workshops in March and April
- Deliberation in closed sessions
- Draft enters NRC review process in August
- Response to Review approved in November
- Transmittal to DOL in November
- Public release of prepublication draft in December: http://books.nap.edu/catalog.php?record_id=12814
- Editing/technical corrections
- Final report in April or May

THE NATIONAL

Prior NRC Studies

Review of DOT (1980)

- Criticized uneven coverage and many other aspects of DOT (pp. 9-11)
- Recommended fundamental changes, including:
 - Continuous updating (p. 13)
 - Creation of permanent, professional cadre (p. 14)
 - Outside technical advisory committee (p. 14)
 - Emphasis on cross occupational linkages (p. 15)
 - Alignment with federal job classification systems (p. 15)
- Led to creation of APDOT and O*NET

Source: NRC, Work, Jobs, and Occupations: A Critical Review of the Dictionary of Occupational Titles, 1980

Prior NRC Studies

- Preliminary review of the SSA research plan for redesign of the disability determination process (1998)
- Concern that O*NET, as being developed, would not meet SSA's needs (p. 24)
- SSA and DOL should enter into an interagency arrangement to create a version of O*NET with information on minimum, as well as average, job requirements (p. 24)

Source: NRC, The Social Security Administration's Disability Determination Process: A Framework for Research, Second Interim Report, 1998

Prior NRC Studies

Review of the SSA research plan for redesign of the disability decision process (2002)

- DOL is no longer updating the DOT (p. 9)
- O*NET will not meet SSA's need to define functional capacity to work without major reconstruction (p. 9)
- Barring some resolution, SSA will be left with no objective basis for justifying decisions (p. 9)

Source: IOM, The Dynamics of Disability: Measuring and Monitoring Disability for Social Security Programs, 2002

Prior NRC Studies

Study of changes in work and occupational analysis (1999)

Concluded that O*NET:

Brings together most comprehensive analytical systems (p. 6)

Is theoretically informed (p. 6)

Is fully accessible (p. 6)

Offers significant improvement over DOT (p. 7)

Maps to other systems (p. 7).

Source: NRC, The Changing Nature of Work: Implications for Occupational Analysis, 1999

O*NET Description

- A very large database
- Accessible online or by download
- Uses a "content model" to describe work

ACADEMIES

THE NATIONAL

Worker-oriented

Worker Characteristics

Abilities Occupational Interests Work Values Work Styles

Cross Occupation

Occupational Requirements

Generalized Work Activities Detailed Work Activities Organizational Context Work Context

Worker Requirements

Skills • Knowledge Education

o*net°

Workforce Characteristics

Labor Market Information Occupational Outlook

Experience Requirements

Experience and Training Skills - Entry Requirement Licensing

> Occupation Specific

Occupation-Specific Information

Tasks
Tools and Technology

Job-oriented

Who Uses O*NET?

- Online Career Guidance Systems ~37 million users in 2009
- 2. State workforce development experts—for job counseling
- 3. Human resource managers
- 4. Researchers
- 5. Vocational rehabilitation counselors

Chapter 8

- SSA uses DOT for disability adjudication
- O*NET is the successor to DOT
- Could O*NET be used by SSA?
- Compare SSA RFC approach with O*NET descriptors

O*NET Descriptors

- Abilities Domain
 - -Cognitive abilities
 - -Psychomotor abilities
 - -Physical abilities
 - -Sensory abilities
- Work Context Domain

RFC/O*NET Comparison Physical Abilities

- RFC: Perform specific physical tasks, e.g., lift 20 pounds with the hands and arms
- O*NET Abilities: Less specific measures

O*NET Abilities: Static Strength

32. Static Strength

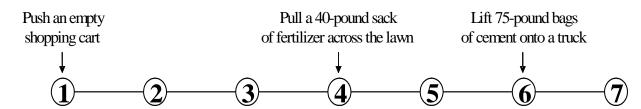
The ability to exert maximum muscle force to lift, push, pull, or carry objects.

A. How important is STATIC STRENGTH to the performance of your current job?

Not	Somewhat		Very	Extremely
Important*	Important	Important	Important	Important
<u>(1)</u>	<u> </u>	<u> </u>	—(4) —	(5)

^{*} If you marked Not Important, skip LEVEL below and go on to the next activity.

B. What <u>level</u> of STATIC STRENGTH is needed to perform *your current job*?



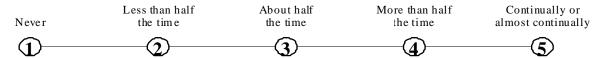
Highest Level

RFC/O*NET Comparison

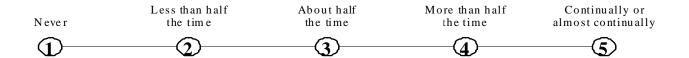
- RFC: Lifting, standing, sitting, pushing; postural limitations on balancing, crouching, crawling
- O*NET Work Context: Time spent sitting, standing, climbing, walking, etc.
- Anchors differ: RFC specific time ranges vs. O*NET relative time

O*NET Work Context Descriptors

34. How much time in your current job do you spend sitting?



35. How much time in your current job do you spend standing?

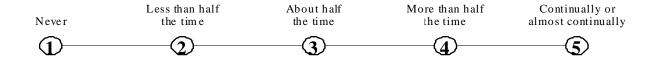


36. How much time in *your current job* do you spend <u>climbing</u> <u>ladders, scaffolds, poles, etc.</u>?

Never	Less than half the time	About half the time	More than half the time	Continually or almost continually
①—		3	4	<u> </u>

O*NET Work Context Descriptors

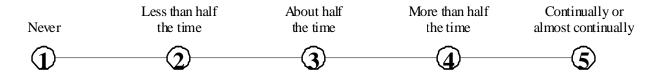
37. How much time in *your current job* do you spend <u>walking or running</u>?



38. How much time in *your current job* do you spend <u>kneeling, crouching, stooping, or crawling</u>?

Never	Less than half the time	About half the time	More than half the time	Continually or almost continually
①—			—	<u> </u>

39. How much time in *your current job* do you spend <u>keeping or regaining</u> <u>your balance</u>?



RFC/O*NET Comparison

Environmental Conditions

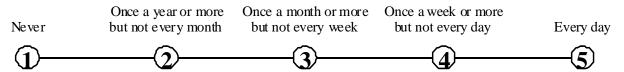
- RFC: Ability to withstand environmental hazards such as heat, cold, wetness, vibration, etc.
- O*NET Work Context: Exposure to heat, cold, contaminants, vibration
- Anchors differ: RFC "unlimited" to "avoid all exposure" vs. O*NET "never" to "every day."

ACADEMIES

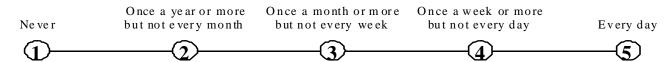
THE NATIONAL

O*NET Work Context Descriptors:

23. In *your current job*, how often are you exposed to <u>very hot</u> (above 90° F) <u>or very cold</u> (under 32° F) temperatures?



25. In *your current job*, how often are you exposed to <u>contaminants</u> (such as pollutants, gases, dust, or odors)?



27. In *your current job*, how often are you exposed to <u>whole body vibration</u> (like operating a jackhammer or earth moving equipment)?

Ne ve r	Once a year or more but not every month	Once a month or more but not every week	Once a week or more but not every day	Every day
①——		3	4	<u> </u>

RFC/O*NET Comparison Sensory/Perceptual Abilities

- RFC
- Near acuity
- Far acuity
- Color vision

Depth perception

- O*NET Abilities
- Near vision
- Far vision
- Visual color discrimination
- Depth perception

Recommendation

- SSA and DOL should create an interagency task force to study the viability of potential modifications of O*NET to accommodate SSA needs
- Analyze SSA occupational information needs
- Analyze interagency cost-benefit and cost-sharing

Aggregation Issues

- O*NET now includes 1,102 occupations, collects data on 965
- SOC 2010 includes 840 occupations
- Since 2006, O*NET has added 153 new occupations-- "breakouts" of SOC occupations and green occupations
- Some O*NET users need these disaggregated data and would welcome further disaggregation
- Other users need aggregated occupational categories aligned with the SOC
- The panel did not agree about the appropriate level of aggregation

Aggregation Issues

 Recommendation: Assess benefits and costs of changing the occupational classification system

Including research into whether and to what extent O*NET occupations represent excessively heterogeneous clusters of jobs for the purpose of disability determination

Data Collection Issues

Conclusion: The O*NET Center uses a multimethod sampling approach, collecting data from different types of respondents who may or may not represent the work performed in that occupation. The impact on measurement error is unclear

Data Collection Issues

 Conclusion: The construct validity of the taxonomies of descriptors varies across the content model domains

Improving Database Quality

- Conclusion: Over the past decade, DOL has achieved its goal of populating O*NET with updated information, but short-term policy agendas have sometimes reduced focus on core database activities.
- Recommendation: Focus resources on core database activities, leaving development of most new applications and tools to others.

Improving Database Quality

- Recommendation: Establish and support a technical advisory board to:
 - prioritize research suggestions
 - develop RFPs for high priority research
 - review and rank proposals

Enhancing Service to Users

- Conclusion: A lack of effective, ongoing communication between the O*NET center and current and potential users hinders full use of O*NET
- Recommendation: Establish and staff an ongoing, external user advisory board

O*NET Lessons Learned

- Developing and maintaining a highquality database requires expertise and funding
 - -Development cost ???
 - -Data collection costs: \$6 m/year to update 100 occupations/year

Questions?

We will be happy to respond to your questions.

TAB B

UNITED STATES OF AMERICA SOCIAL SECURITY ADMINISTRATION

OCCUPATIONAL INFORMATION DEVELOPMENT ADVISORY PANEL

+ + + + +

QUARTERLY MEETING DAY 2

+ + + + +

Thursday
March 25, 2010

+ + + + +

St. Louis, Missouri

+ + + + +

The Quarterly Meeting of the Occupational Information Development Advisory Panel convened at 8:30 a.m., pursuant to notice, in the Colonnade Ballroom, 13th Floor, Sheraton St. Louis City Center, 400 South 14th Street, St. Louis, Missouri, Mary Barros-Bailey, Chair, presiding.

PANEL MEMBERS PRESENT:

MARY BARROS-BAILEY, Chair, Ph.D.
ROBERT T. FRASER, Ph.D.
SHANAN GWALTNEY GIBSON, Ph.D.
THOMAS A. HARDY, J.D.
H. ALLAN HUNT, Ph.D.
SYLVIA E. KARMAN
DEBORAH E. LECHNER
DAVID J. SCHRETLEN, Ph.D.
NANCY G. SHOR, J.D.
MARK A. WILSON, Ph.D.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701

ALSO PRESENT:

DEBRA TIDWELL-PETERS, Designated Federal Official

MARGARET HILTON, The National Academy of Sciences

THOMAS J. PLEWES, The National Academy of Sciences

DEBBIE HARKIN, Staff MICHAEL DUNN, Staff ELIZABETH KENNEDY, Staff SHIRLEEN ROTH, Staff

NEAL R. GROSS

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NEAL R. GROSS

1 P-R-O-C-E-E-D-I-N-G-S 2 (8:39 a.m.)MS. TIDWELL-PETERS: Good morning, 3 If you could please take your 4 everyone. seats, we are about to begin. 5 Ι Debra Tidwell-Peters, the 6 Federal Officer 7 Designated for the Occupational Information Development Advisory 8 Panel, and we welcome you this morning to our 9 10 second meeting of 2010. I am going to now turn the meeting 11 over to the Panel Chair, Dr. Mary Barros-12 Bailey. Mary? 13 CHAIR BARROS-BAILEY: Thank you, 14 Debra. 15 16 Good morning. I want to welcome back those who were in attendance with us 17 yesterday at the start of our second quarterly 18 19 meeting in 2010, and also welcome those who are with us for the first time this morning, 20 whether it be in person or telephonically. 21

This is just a reminder that this

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meeting is being recorded.

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For those listening in remotely, to follow our agenda please go to our website, www.ssa.gov/oidap for a copy of the agenda.

As I indicated yesterday, for those attending our meeting for the first time who might be interested in the activities and deliberations of past meetings, if you go to the meeting page on our website you can click on any agenda, and associated with that agenda are the PowerPoints that were delivered for -- or to the OIDAP since our inaugural meeting in February of 2009.

On our website you will find a variety of materials, including technical papers and the first report issued by the panel in September of 2009 called "The Content Model and Classification Recommendations for the Social Security Administration, Occupational Information System." The Occupational Information System is also what we call the OIS.

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It outlines our advice to SSA regarding the data elements we felt essential to include in the content model specific to disability adjudication.

As we indicate at the start of each meeting, the charter of the Occupational Information Development Advisory Panel, OIDAP, is to provide Social Security with independent advice and recommendations the as to development of an OIS replace the Occupational Dictionary of Titles in the disability determination process.

To reiterate something I said yesterday, our task is not to develop the OIS.

As our name implies, we are advisory in our capacity.

Yesterday during her report to the User Needs and Relations Subcommittee, Nancy Shor encouraged public feedback and comment upon the September report. I want to emphasize what she said -- that we welcome input from stakeholders and the public at any

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To help streamline input into the September report, we are strongly encouraging feedback through May 21st of this Besides having the report available at our website, disseminating it for feedback through notices along with our meetings in the Federal Register since November, notifying individuals subscribed through our electronic mailing list about it, and the public feedback request, and speaking about it at four conferences, with presentations slated at eight more conferences between now and May 21st, we are attempting to get the word out about the report, as well as potentially including it in other means, such the 0pen Government website and/or as independently through the Federal Register.

What stakeholders say matters, and we want you to know that what you have to say we want to hear.

Following our review of our September report, Commissioner Astrue further

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requested our assistance in providing SSA with recommendations, and we reviewed those yesterday. I will reiterate them this morning for those who weren't in attendance with us yesterday.

In January, he asked us to provide SSA with advice in four areas -- in developing a sampling and data collection plan for the research and development process. Number two, for helping with advice and recommendations for the creation of a process for recruiting field job analysts, including methods certification criteria and training. associations establishing between human functions and the requirements of work that would serve the disability evaluation process. And, four, reviewing relevant documents or reports SSA identifies that may affect inform SSA's work on the OIS.

In our agenda for today, we specifically address the fourth request by Commissioner Astrue.

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identified As in the September report, the data elements recommended to SSA were the starting point of our process, not the finish line for the OIDAP. While many panels are assembled to study a topic for a designated time, and that culminates with a report, after which time the panel disbanded, our panel is different in that we have been asked for further independent advice and recommendations into the research development process of the OIS development.

The 2009 National Academies Science report on the O*NET is the first time that independent group has reviewed an occupational information system in 30 years, since review of the Dictionary а of Titles conducted Occupational was by the National Research Council in 1980, and what is often referred to as the Miller Study.

We commend the U.S. Department of Labor for commissioning the National Academies of Science Panel to independently review the

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O*NET upon the O*NET's tenth anniversary.

This is an important process.

is timely that the National Ιt of Science reviewed Academies an existing civilian occupational information system while we are providing advice and recommendations to Social Security Administration on development of an OIS. The existence of the National Academies of Science panel report provides us with the opportunity to explore areas that exist in the development of any occupational information system, and learn from that process to better advice and recommendations the Social Security to Administration.

The National Academy of Science report provides us as a panel with a great chance for learning. That is the goal for this morning.

We thank Margaret Hilton, the Study
Director and Senior Program Officer, and Tom
Plewes, Associate Study Director and Senior

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Program Officer with the National Academies of Science for accepting our invitation this morning to come and speak to us.

Behind Tab 3 in our three-ring binders we will find the biographical sketches for Margaret and Tom, and we will also find copies of their PowerPoint presentations.

Margaret and Tom have quite a bit of information to present to us this morning.

I will ask the panel to withhold questions until after they are completed with their presentation.

Welcome.

MS. HILTON: Thank you. That's it.

The name of our study, which is available right now on our -- the National Academy Press website -- is called "A Database for a Changing Economy: Review of the O*NET."

The Department of Labor asked us to do this study. As Mary mentioned, it seemed like a good time to study O*NET, because it was about a decade old. And they especially

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wanted us to document how O*NET is used, but they also wanted us to evaluate those uses. And they are especially interested in use in workforce development, because O*NET was originally created for that purpose by state and local employment offices.

They were interested in management uses of O*NET, resource especially in business and in job matching systems. And they were interested in how O*NET links other occupational to particular classification systems, in Federal Government's standard occupational classification system.

The linkages are important, because it is a database. It is an electronic database, and it is sometimes used going back to the HRM and HRM information systems, HRM/IS systems.

They wanted us not only to document how O*NET is used and evaluate it, but also to identify how O*NET could be improved, and they

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were especially interested in the areas you see listed on the slide. Currency, how up to date is this information? Efficiency, are there better ways to collect the data? Cost effectiveness, is there any way to do it less expensively? And they wondered about using new technologies to collect the data.

We just had breakfast with Mary and Sylvia and Mark. We were talking a little bit about the panel selection, and you will see a gold brochure at your place that talks in greater depth about our whole National Academy study process.

Basically, Tom did most of the recruiting, and I think he did a great job. Tom talked to the members of the Committee on National Statistics. That's a standing committee of the National Academies. And he also just talked to people in the field.

And when we talk to people, they identify other people, so it's a complex kind of a snowball sampling process we go through,

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and we talked to many people and we have finally come up with a slate of nominees. They are only nominated. Our proposed slate of staff people goes all the way up to the President of the National Academy of Sciences.

Only Ralph Cicerone, the President, can approve their membership, and yet even his approve is provisional, because those names, those nominees' names are then posted for public comment for 20 days. And at the first committee meeting we always hold a closed bias and conflict discussion, and based on that discussion some members decide may to voluntarily drop off or there may be other problems.

After the bias and conflict discussion, we write a memo that goes to our lawyers, and then, finally, when the lawyers say it is okay, then they become the final committee members. So it's a complex process, but we try to -- we do it that way to try to make sure we get the best panel members.

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We also are trying to balance areas of expertise, and on our panel we have -- we had quite a few IO psychologists, people in the field of work analysis, but we also wanted users of O*NET. We also tried to get a mix of views of O*NET, so that we weren't having only the people that were involved in the original development or the people that are known to be its biggest proponents, but we also tried to include people who had more questions about the system.

So these are the panel members we ended up with. I am not going to read through all their names, but obviously they are people known in the field of IO psychology and users and statisticians.

Our study process is that we were reviewing the literature throughout the study process and, of course, our panel members helped us, because some of them know the literature quite extensively. We did hold public workshops in both March and April, and

Sylvia Karman spoke at our March workshop.

The National Academy has a special exemption from the Federal Advisory Committee Act that allows us to hold some of our deliberations in closed session, and we did hold such deliberations. We created a review draft, based on all of the information we had received that entered our review process in August.

Then. we did what's called response to review, where we talk about every received from the comment outside we reviewers, how plan to address that we comment, and, if we don't plan to address it, we have to have a very good reason not to make the change.

Our response to review was accepted in November. One thing I should mention is that all of our panel members and all of the outside reviewers are volunteers, so I was just going to mention the name of our volunteer review coordinator. That was Neal

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Schmitt from Michigan State University. He approved our response to the review comments in November, and we transmitted our report to DOL in November, in pre-publication form.

And if you are interested in reading the whole report, you can see the web address right there. It is still published right now in pre-publication form. Right now there is final editing going on to the second page proofs, and on April 22nd we expect to actually receive the books, the published books, from the National Academy Press.

At the time that we get the final copies of the book, the website version will also change and reflect the changes that are in the final printed report.

We have done other studies that are related to our recent O*NET study, and Mary mentioned our important study in 1980 when we reviewed the Dictionary of Occupational Titles. And that committee found a lot of flaws in DOT -- uneven coverage. There were a

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lot more job titles listed in the DOT from manufacturing than existed in the economy, because even in 1980 the economy was already beginning its shift, which continues away from manufacturing towards services.

That panel recommended a lot of very fundamental changes in the Dictionary of Occupational Titles. One that is actually not listed on my slide was the idea of going to an electronic database, because it is just going to inherently be out of date if you are going to create a big paper dictionary, and then have to update it and print it.

So the vision was to have much more continuous updating and to have some permanent professional people within the Department of Labor who could oversee the development of a better and improved database for the future.

The panel also recommended an outside Technical Advisory Committee, and the only reason I mentioned that recommendation from a study way back in 1980 is that our

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panel that met just last year makes the same recommendation to the Labor Department, that they should have an outside Technical Advisory Committee.

1980 was a time when a lot of jobs were being lost, manufacturing was shrinking, people were being laid off, and so that committee recommended looking at jobs, defining them broadly and looking at what can be -- what kinds of skills, abilities, and other characteristics can transfer from one job to another?

So they talked about crossoccupational linkages. That panel recommended that the new system be more in line with other federal occupational classification systems, and that study was important, because it led the Labor Department to create the Advisory Panel on the Dictionary of Occupational And that panel led to the creation of O*NET.

Another earlier study that relates

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more directly to your charge was a preliminary review of research plan redesign to disability determination. That study expressed a concern that O*NET, as it was being developed at that time, was not going to meet SSA's needs. That panel suggested that SSA and DOL enter into an interagency agreement to create a version of O*NET with information on minimum as well as average job requirements.

Another study, which Tom brought a copy of, so I can show it to you, is called "The Dynamics of Disability." And this one came out in 2002. It is related to the study I just mentioned to you, in that it is a more final study of the same SSA research plan.

Basically, they observed, which we all know, is that the Labor Department was no longer updating the DOT, that the O*NET would not meet the SSA's needs to define residual functional capacity to work, without major reconstruction. And that if there wasn't any

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resolution to this problem that SSA would be left with no objective basis for justifying the decisions.

Now, another study that is -- we are getting a little more -- a little more recent, still 10 years old, the time flies. This book is called "The Changing Nature of Work: Implications for Occupational Analysis." This study was actually done for the Department of Defense, which was looking at a lot of different occupational information classification systems.

This panel concluded that O*NET brings together the comprehensive most analytical systems. Ιt is theoretically informed. It is fully accessible and offers significant improvements over the DOT, and it maps well with other systems. So this panel basically encouraging DoD to consider was O*NET as a framework as it tries to bring its occupational systems closer together.

And now I'm going to turn it over

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to Tom to tell you more about O*NET.

MR. PLEWES: Thank you. And let me just say that more recently there was a Rand panel that took a look at the DOT -- that took a look at the possible use of the O*NET and other classification systems for DoD purposes, and recommended that DoD take a look at O*NET. So that work keeps on going on. I know about that, because I happened to be lucky enough to serve on that panel.

Let's see here. Here we go, okay. So what is O*NET? I really don't have to tell this group that, but let me just start out with some very basics here. It is a very large database. It is probably not as big as some people would like, but it is a lot bigger than a lot of users would like to see when they open up those files.

It is accessible online or by download, and it uses this thing called a content model to describe work. Pretty basic stuff, but I just want to kind of start out

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this way, because I think it's important that we understand that.

There is a rigor to what O*NET --how O*NET approaches it. The folks who developed O*NET took a look at all of the literature at that time, and came up with, if you will, this quadrant, taking a look at not only work-oriented but job-oriented kind of characteristics of work that wanted -- they wanted to have incorporated.

We will get into the evaluation in just a minute here.

The important thing I think that we need to understand is that O*NET is a general purpose kind of a classification system. It has a wide variety of users and uses, and we drilled into some of these in the report that we published. Some of the data that we were able to assemble, that really wasn't well-known before, was quite astounding as a matter of fact.

For example, over 37 million

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individual users did some access to an online career guidance system, which is in turn driven by O*NET in 2009. That was a very large number, and it caused some people to think, gee whiz, maybe if we just owned O*NET we would really be rich.

But the fact of the matter is is that there are a lot of folks out there who use it for career guidance and have built it into these career guidance systems -- state workforce development, for job counseling and the more traditional roles that O*NET and the DOT and O*NET itself were originally designed for.

They had two experts, as you know, from state labor market information organizations helped provide that this information to those folks who are trying to match workers with jobs out in the field, human resource managers, researchers, importantly, vocational rehabilitation then, counselors, who are of course represented by

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your Chair and other members of this panel.

Those are the folks who use O*NET. In fact, I think that if someone asked me that question, who uses O*NET, I would say you. You may not know it, but in some way this structure called O*NET fits into many of the things that you do on a daily basis, and in a wide variety of areas.

The important thing is is that -to understand is that it is designed to meet a
wide variety of uses, but in each case there
probably is a better system that could be
developed for that particular use. But it is
a general purpose system, and it does not try
to fulfill all of the needs of all of the
users, but it tries to, if you will, provide a
basis for all users to understand and to view
an occupational information system.

So what did we say here? First of all, why did we get into this SSA business? People have asked that question. Why did the panel choose to look at this? If you look at

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the original charge that the panel came up with, it does not specifically say, "Now, you take a look at whether or not O*NET meets the disability -- you know, the requirements of SSA for the disability adjudication work that they do." It just wasn't there.

But as the panel began to look at the major uses and the previous studies that were done by the National Research Council and the Institute of Medicine, it became very obvious that a major interface between O*NET and a user system was represented by the need that you are looking at now, the Social Security Administration's need.

They didn't feel that they could -that they could put out a report without at
least addressing that interface, and so you
saw Chapter 8 in our report.

We did not have on the panel a person who was an expert in Social Security Administration disability adjudication, and we did not look at all of the issues that your

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panel is looking at, nor in the depth of hands-on experience that you are taking.

So Chapter 8 has to be looked at in a slightly different view than the work that you are doing, it seems to us. And that view is, if you are developing a general purpose occupational information network system, here is a major user, and are there opportunities to serve the needs of this particular user, given what we understand to be the needs of the user and the functionality that O*NET provides. So we need to make that very clear.

Now, the panel was not you, and it did not bring the same expertise to bear on the issue. But I was pleased to note from the report that you put out in January that they faced and they approached the issues in many of the same ways that you have approached the issues -- by taking a look, if you will, at the ability of O*NET to fulfill some of those particular functions.

So they actually said, okay, could

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O*NET be used by the Social Security Administration for this? Well, what you need to do, if you are going to make that kind of decision, is that you need to take a look at your residual functional capacity approach, and you need to take a look at the O*NET descriptors, and so let's do that systematically.

You've done a lot of that work here in your report, and I will not spend a lot of time at it. But I do want to let you know what the panel came up with.

First of all, here are the O*NET descriptors. They are a mix of the cognitive, psychomotor, physical abilities, sensory abilities, a mix of the traditional, if you will, occupational classification, with some of the work in fact taken directly from Fleishman's work on the physical ability side.

But it covers a wide range of domains, it doesn't focus and on the domains of absolute most interest to you.

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Okay? It is, again, a general purpose. And there is, of course, the work context domain, which we won't spend too much time on.

So we took a look at comparing, as best the panel could, the residual functional capacity with O*NET comparisons. And the first thing they looked at was physical abilities. We took as a given the residual functional capacity requirements that have come up with -- that the Social Security Administration has come up with.

And it was very obvious that when taking a look at physical abilities that O*NET has much less specific -- specificity in the measures. There is not the kind of specificity that is necessary to meet the current RFCs for physical disabilities. And, interestingly enough, that is exactly what your report found as well.

And this is just an example. The same example is in your report. I won't dwell on this. It's in our presentation.

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In terms of comparing the RFCs for lifting, standing, sitting, pushing, you can read all those. Again, there are specific time ranges versus a relative time used in The anchors are very different, and it O*NET. causes, if you will, а not direct transferability of the O*NET work context to meet. It is the RFCs of Social Security, and here are some of the examples in O*NET, and you can see that. We'll just go through this very quickly.

In terms of environmental conditions, the RFCs are quite specific in terms of ability to withstand environmental hazards. There is -- the O*NET work context has exposure to heat, contaminants, vibration, and so forth.

I would call this -- you may not agree with me -- I would call some of these differences between O*NET and the RFCs used by Social Security to be marginal. They aren't critical to say O*NET will never ever meet

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that, but it is a matter of your judgment.

And I think you should -- you need to take a look at that, and here are the O*NET anchors there.

In terms of sensory perception and abilities, we have just gone through again near acuity, near vision, far acuity, far vision. Is that nuance, or is that terribly important? If you are sitting in the field and you've got to make a judgment, perhaps it is terribly important, and you need to have something much more specific or different than O*NET is offering you.

And so what did we come up with? What did the panel come up with? I think that there was -- there is a general concurrence on the panel with the findings of the previous National Research Council reports that O*NET, in and of itself, cannot be used in the way it is for the purpose that you need to use it. It just -- it is not -- it is not fully capable of serving that purpose.

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However, there are those good things we talked about in terms of O*NET -- its tie-in with other classification systems, particularly with the standard occupational classification structure, the rigor that is used in building O*NET.

Some of that rigor is based on surveys of workers in establishments that may have some issues with response rates, and so forth, and we looked at that also. And, yes, we recommended some revisions in the way that those surveys are done.

Some of that has to do with the way in which experts, job analysts, provide their input to this. And, again, there has to be a reconsideration of some of -- the way in which that particular business is done, and we -- the panel made recommendations in that as well.

But I think that they saw enough goodness in O*NET that they recommended that the Social Security Administration and the DOL

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create an interagency task force to study the viability of modifications of O*NET to accommodate the needs of the Social Security Administration.

It didn't say, "Social Security Administration, change the way you do business to meet O*NET." There are some things that could be changed within O*NET, for example, that would help make that system much more reflective of -- or much more consistent with where the Social Security Administration wants to go with disability adjudication.

It asks that there be an assessment of SSA occupational information needs. Whoops, we didn't recommend your panel, but that's certainly contribution that a we are making. believe that you And then, analyze interagency cost-benefit and costsharing.

These things don't come without cost, both to DOL in terms of the kind of work that must be done to make O*NET somewhat more

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friendly to this particular use, nor certainly to the Social Security Administration as it would try to work with Department of Labor to make O*NET much more friendly to the disability adjudication and the disability adjudication system — information system much more friendly to O*NET.

So there is a cost-benefit that has to be made. We did not make that cost-benefit. The panel did not -- didn't have the time, the input, but we recognized -- the panel recognized that you don't make these decisions based on what is nice to have. You make the decisions based on what is practical, what is affordable, and what is consistent with the ultimate need of the user. And I think that was the recommendation.

So a lot of the work that was suggested by the panel has been handed back to the Department of Labor, and not just to Social Security Administration. So, and we are still waiting to hear what Department of

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Labor's response to that particular recommendation is.

MS. HILTON: Thanks, Tom. That was a very good explanation of where the panel is and what we recommended.

When Debra Tidwell-Peters invited us to speak, she mentioned some specific issues that she would like us to address, because our report is very broad, so I just wanted to try to address some of the specific questions she asked about.

One is the aggregation issue, which I know you all are very familiar with. I mean, obviously, DOT had 14,000 jobs. Right now, O*NET has 1,100 occupations, so that's -- it's a huge difference.

The O*NET is aligned with SOC. It does have a coding system with digits, so that you can relate any O*NET job to an SOC job.

Nevertheless, it is not perfectly aligned.

The SOC has just revised. It has 840.

Obviously, O*NET has over 1,000.

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Since 2006, O*NET has added 153 new occupations. These are what they call breakouts of SOC occupations. In other words, it is becoming more disaggregated. Part of the breakouts are related to the search for green occupations.

What our panel observed is that for some of the users of O*NET they really want this disaggregated data. People in career guidance want to be able to direct young people towards a more specific job, not towards such a broad occupation.

Obviously, your users would like more disaggregated data. On the other hand, there are other users, and specifically in workforce development. And that is the core constituency that is why, first, DOT was created, and then O*NET was created.

It was to serve state workforce development people who are trying to place people in jobs. And they like the broader occupations, because they are completely

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aligned with SOC occupational codes and they can then link this occupation with a lot of data collected by the Bureau of Labor Statistics and state and local agencies, and that is all collected at the SOC level.

So the panel observed these -- some people want more disaggregation, some people want less disaggregation, and the panel didn't agree. I think that shows that our panel was well balanced. I mean, you could say it's a problem that they can't agree, but it just may reflect the reality.

The panel -- although the panel didn't agree what the level of aggregation should be, again, just as in the case that Tom just mentioned, our panel met for a certain amount of time and then it quit -- that was the end of our time, money, and effort, and so the panel felt very, very strongly that this aggregation issue was critical for the future of O*NET and for the usefulness of O*NET.

And so they recommended that the

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Labor Department either conduct or commission research to look at the costs and benefits of changing it, of either making it bigger or making it smaller, and, you know, what would be the result of making it bigger, what are the pros and cons, what are the results of staying smaller, closer to SOC, what are the pros and cons.

One element of our recommendation on this aggregation issue, and it's a long recommendation -- we had many long recommendations. So one element was specifically calling for some research into whether O*NET is too disaggregated for the purposes of disability determination, and to what extent.

There is the recommendation. Sorry

I didn't put it up there, but it seems -- I

know you have this all right in front of you

anyway, so -- okay.

Data collection -- now that was another issue, and Tom just started to mention

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it briefly. Right now, O*NET is using -collecting data using a lot of different
methods and a lot of different sources. It is
collecting data from many different types of
respondents, including job incumbents.

Then, there are people they call occupational experts, people who may have worked in the occupation at one time, but now they might be trainers or doing something else related. That is another group. And then, the third group are the occupational analysts.

Our conclusion was that these -all these different sources may or may not be
the best representative of the work that is
performed, and that the impact on measurement
error is unclear, because with every method
you introduce new error.

Specifically on the issue of the use of occupational analysts, here again this was an issue where our panel did not entirely agree, and all you have to do is read Chapter 2. You can tell it. But you can especially

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tell it because there is a dissent at the end of our report, where two of our panel members dissented on about a few issues, but they were the one of issues was this use of occupational analysts where they felt that giving paper descriptions of an occupation to trained occupational analyst would result in an accurate rating.

Another data collection issue that we identified was that the construct validity of the taxonomies of descriptors varies across the different domains of the content model. Tom showed you a picture of the content model. Ιt is very, very big. There are domains. Within the domains, there are many specific descriptors. And some of those descriptors have a strong research base.

Tom mentioned the abilities descriptors. They are drawn from Fleishman. They are widely accepted as some of the best descriptors of abilities, with the strongest research base. Some of the other taxonomies,

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skills, and knowledges there is less support in the research.

So to the database quality, another conclusion was that DOL has achieved its goal of populating the O*NET with updated information over about a decade. We did see a problem that there were some short-term policy agendas that were sometimes reducing the focus on the core database activities.

And to mention some specific concerns there, the Labor Department and the O*NET center, trying to make it more userfriendly, put a lot of things onto O*NET Online, which some of the users in the field don't entirely agree with, especially trying to define an in-demand occupation, define it nationally, and had state people yet we speaking at some of our workshops saying they did not like it that O*NET Online puts little flags and highlights certain occupations to that, you know, these are suggest areas, this is where you can place people in

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jobs, and so forth, and especially now with the recession.

So basically that is an example of a short-term policy agenda, and certainly the current focus on the green jobs, where they are adding a lot of green jobs, but how representative are those jobs of the whole economy.

So our recommendation here was that DOL should be focusing its resources on the core database activities, and not getting so involved in developing the applications and tools and trying to become more user-friendly.

Related to that, as Tom mentioned, many people just take the whole O*NET database and they make it more user-friendly anyway, especially these online career guidance systems. So Labor Department doesn't need to spend its own time and money creating these applications.

Our most important recommendation for improving the quality of the O*NET

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database was that we strongly believe that the Labor Department should establish and support a Technical Advisory Board. That advisory board we think should be prioritizing research suggestions that come from the field or from within DOL. They should develop RFPs for the high priority research items, and then they should review and rank proposals from outside researchers to conduct that research.

As I mentioned, we have many recommendations in our report. We have a lot of long recommendations. But since many of our recommendations relate to research, this is our top priority.

If you are interested in how we see the priority of all of our many recommendations, I would recommend that you read Chapter 10. In Chapter 10 of our report we rank all of the research and development recommendations.

We also noticed there were problems in terms of the users and the communication

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back and forth between the database developers and the users. We didn't think there was enough ongoing communication. The example I just gave to you of the O*NET center identify nationally in-demand occupations when people at the state level don't even think those are in demand is an example of a lack of communication. So here we recommended that they establish and staff an ongoing External User Advisory Board.

When we met not long ago with the SSA Subcommittee of House Ways and Means, they wondered, are there any lessons learned from the development of O*NET that could be applicable as you start to create your own occupational information system? Our main conclusion would be that developing maintaining а high quality occupational database takes a lot of expertise, and it requires money.

We were not able to develop an estimate of how much it costs to create the

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content model, but that was a very, very extensive research project that went on for five years -- developing it, developing the constructs, the taxonomies -- and then going to the field and pilot testing it.

We do know that the data collection costs right now are about \$6 million a year, and that updates 100 occupations a year. So that gives you some idea.

And one other thing I'll mention to data collection costs is related that whenever O*NET adds more occupations, whenever it becomes less aggregated, more disaggregated, as it has done, that is always going to increase your data collection costs, because you have more occupations to go after, and that means that same money that could have been used to refresh your existing occupations frequently is going to chase more more occupations. So there is always a tradeoff in any kind of database like this.

And that's it. Now we're ready to

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take your questions.

CHAIR BARROS-BAILEY: Thank you,
Margaret and Tom, for your words and your
presentation. I think this is very useful to
us this morning.

Before I open up questions to the panel, I have some questions I would like to ask. And I know that we have mentioned that Mark and I met with you independently outside of the OIDAP, and Mark outside of his university, me outside of my previous IOTF representation, and we also understand that SSA has met with you as well.

So in terms of the version of your report that is online, on the website, in terms of the pre-publication copy, and you mentioned in your slides that you are going to have the final report available in April or May, what are the changes that are in the final copy of the report?

MS. HILTON: I can't -- I mean, I just can't give you that answer. We made

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changes throughout -- well, we made some changes to almost every chapter, as a result of the feedback we got both from DOL, from the O*NET center, and from you.

But, you know, without having a copy in front of me, because every change -as I mentioned to you at breakfast, there was internal discussion, because our of policy is that we don't change major conclusions or recommendations. So that I can major conclusions that the say, and recommendations, including the recommendation that Tom shared with you about an interagency task force, have not changed.

CHAIR BARROS-BAILEY: How about for Chapter 8? What were the specific input that you received that might have changed anything in Chapter 8?

MS. HILTON: We did make some small changes to Chapter 8 in response to our meeting with you and with SSA.

CHAIR BARROS-BAILEY: What were

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1	those?
2	MS. HILTON: Like I said, I can't
3	without having the, you know, copy in front
4	of me where I see the redline strikeout, I
5	can't say.
6	CHAIR BARROS-BAILEY: So were they
7	editorial in nature?
8	MS. HILTON: I would say they are
9	more editorial in nature.
10	CHAIR BARROS-BAILEY: Okay.
11	MS. HILTON: As I mentioned, our
12	policy is not to change major conclusions or
13	recommendations.
14	CHAIR BARROS-BAILEY: Okay. Thank
15	you. And then, in terms of how I came at the
16	report, and as a panel member, what guided my
17	evaluation of the report was our own
18	evaluation of the occupational information
19	needs of SSA. And I know that Tom has a copy
20	of the report, and I know that's outlined in
21	pages 11 and 12 of the report.

And so for anybody who is listening

in and wants to access a copy, I mentioned at the beginning of the meeting that you can go to our website, the home page, and access the report.

The occupational information needs that are outlined in pages 11 and 12 of our report include four categories of what an occupational information system must contain to meet SSA's needs. I would like to ask some questions specific to the recommendation that the National Academies of Science panel has in terms of occupational information needs for SSA in Chapter 8 for disability determination as they relate to these four areas.

One of the things -- the very first thing that is -- the bullet says reflect national existence of incidence of work. It says a new occupational resource must show that work exists and that work exists in numbers sufficient to indicate that it is not obscure.

One of the things -- the last

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things that you just mentioned was the inclusion of green jobs and whether, you know, that overemphasis is really reflective of work as it exists in the national economy.

So how did the NAS panel consider this occupational information need for SSA in terms of the disability determination process in its recommendations for Chapter 8?

MS. HILTON: We didn't specifically address, you know, the specific need of the work identified in numbers, or specific -- we did not identify that question specifically within the context of the need for disability determination, and we didn't even make a specific conclusion or recommendation.

But I think it's fair to say that our panel believes that the current occupations that are in O*NET are pretty well representative of the occupations in the national economy. I think it's fair to say also that some -- well, I don't -- we didn't really reach consensus, as I mentioned, about

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the recent growth and the new occupations that are added, with some panel members feeling like these being added for political are reasons, if they are green jobs, and other panel members saying that it is very important that any occupational system remain up to date. And if jobs are changing, and if new being created, they should jobs are reflected.

So I'm sorry that is not an exact answer to your question.

MR. PLEWES: Without directly addressing this point that you make here in terms of reflecting national existence and incidence of work, I think the panel did talk to that, and consider that, in terms of reaffirming the need for the linkage to the standard occupational classification structure.

The standard occupational classification structure is that structure which allows you to link to those databases

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which tell you about the trends in the occupations out in the field, the new and emerging occupations, and so forth. The standard occupational classification structure is updated on a recurring cycle, a regular cycle, so there is а built-in updating mechanism there.

So those two aspects of O*NET I think are -- commend themselves to being able to reflect the national existence and incidence of work. Whether they do or not in practical aspect as they are applied, as the O*NET information flows into -- I'm sorry, as SOC information -- based information flows into O*NET, is not something that the panel looked at.

CHAIR BARROS-BAILEY: Thank you. And in your presentations I noted that you use the word "occupation" in terms of reflecting the O*NET, and I know that in terms of a decision point that DOL had to make in the development of the O*NET was what was the unit

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of analysis. And in your report you indicate that to be the unit of analysis at the occupation level.

Was there ever a consideration of the unit of analysis or a user need where the unit analysis was at the job level?

MS. HILTON: Well, as I mentioned, when the Advisory Panel on the DOT met, one of their concerns was that it was just not practical, not affordable, to continue trying to collect data on 14,000 job titles. I think it is important to remember that even the DOT, even with 14,000, that those job titles were representing more different, unique jobs.

If you are going to create a national database, it is not ever going to be possible to define every job, because organizations have their own job titles and it just gets very, very large.

I remember Rich Froshel telling me something about when the state of Texas talked to their employers and said, "What job titles

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do you use here in Texas?" And they got something like 80,000 different job titles back.

So I believe that it -- that the reason -- one reason O*NET uses the broad occupations it does is that it was trying to follow the recommendations of that earlier advisory panel, which recommended looking at fewer, broader occupations, partly because, as I mentioned, their concern of identifying the transferable skills and knowledges, and so forth, that people might be able to use to move from job to job.

CHAIR BARROS-BAILEY: Thank you. The second area in terms of SSA's needs for occupation information was reflecting work requirements, that it enable SSA must evaluate an individual's ability to perform work rather than to obtain work. As such, it reflect says any new resource must occupational information that is aggregated, defined, and measured, in a way that allows

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SSA to compare work requirements to an individual's RFC and to determine the ability to work despite a severe impairment.

So the question is: how did the National Academies of Science panel consider this occupational information need for SSA's disability determination process in its recommendations?

MR. PLEWES: Again, I think that if you look at Chapter 8, the panel did not go into the level of detail that you are -- have and will go into. Let's say that right up front.

So its comparisons that I discussed with you between the RFC and the O*NET are at a fairly high level of aggregation. That you the said, when go into various descriptors, you can see that in some cases O*NET does a pretty good job, and in some cases it falls way short of the mark as to meeting this particular requirement in terms of reflecting work requirements, as you have

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1	defined them as necessary to conduct to, if
2	you will to clearly understand the RFCs. So
3	it varies.
4	CHAIR BARROS-BAILEY: Thank you.
5	And you mentioned in the chapter the RFC,
6	which is the physical. I didn't see a mention
7	of the MRFC, which is the mental/cognitive.
8	Was that something that the National Academies
9	of Science panel considered in its
10	recommendations for Chapter 8?
11	MR. PLEWES: Not in any depth, no.
12	MS. HILTON: No.
13	MR. PLEWES: There was a mention,
14	and that's it. No.
15	CHAIR BARROS-BAILEY: Okay. And I
16	know you have read our report. That's a
17	really big area of research that needs to be
18	done. It's one of the fastest-growing areas
19	in terms of claims, and a really big issue in
20	terms of disability determination.
21	One of the questions and I know
22	when I met with you I talked about and you

mentioned in your presentation that I'm a rehab counselor, and I talked of my role as a vocational rehab counselor and also a forensic expert.

noted in your PowerPoint And Ι presentation that you talked about voc rehab, but I didn't see that you had anybody present to you who came from the forensic community, somebody with a legal background, somebody who does expert witness testimony. And I wanted -- did you have any testimony, any information forensic in terms of the application?

MS. HILTON: No, we didn't.

CHAIR BARROS-BAILEY: Okay. And so that goes to my question in terms of the third bullet, that the database, the occupational information system must meet a burden of proof that the individual is actually not theoretically capable of doing some kind of work.

And so has there -- did the

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National Academies of Science -- or how did the National Academies of Science panel consider this very important threshold in terms of occupational information for the disability determination process?

MS. HILTON: Right. Well, again, we didn't consider that. I think one reason that what -- our recommendation here would be to create an interagency panel to look at this in greater detail, is that we recognize that we did not -- I mean, it is not only with disability determination, but many other areas, we began the process of looking into the database in greater depth.

We identified areas that we thought were problematic with our quick look, and we think further study is needed.

CHAIR BARROS-BAILEY: Okay. So insofar as further study has occurred since these recommendations, I know that you noted that one of the recommendations was basically for something such as our panel, then that

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would be additive to the recommendations that the National Academies of Science panel has in Chapter 8, is that what you mean by that?

MS. HILTON: Well, I think as Tom mentioned it would -- you know, one of the things we recommended that this interagency group do would be to look at SSA's needs, and obviously, you know, you have done that.

CHAIR BARROS-BAILEY: Okay.

MS. HILTON: So --

in CHAIR BARROS-BAILEY: So the fourth bullet -- and I just want to bring this one up, I'm not going to go through each of individually, because these it's mу understanding that you didn't look at specific needs, is that correct, in terms of any of the occupational information needs as outlined in our report, that that was considered by the National Academies Science panel?

MS. HILTON: Well, this report came out -- our report came out before your report,

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1 so, you know, we couldn't address --2 CHAIR BARROS-BAILEY: Our came out in September. 3 Oh, that's true, but 4 MS. HILTON: our committee had done its work. Our report 5 was in review at that point, so we were not 6 7 going to be making changes except in response So there was -- you know, it to review. 8 wouldn't have been possible for us to look at 9 10 all of these things. I mean, I would say in terms of 11 these three bullet points here, the reflect 12 13 work requirements, as Tom just mentioned, that the analysis in Chapter 8, we did try to look 14 at what we thought -- what some RFC needs 15 were, specifically physical, and compare those 16 with some O*NET descriptors. 17 CHAIR BARROS-BAILEY: Okay. 18 19 know that Chapter 8 does mention our report, 20 and it also mentions our recommendations,

MS. HILTON: Yes.

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outlined --

1	CHAIR BARROS-BAILEY: in the
2	report, so there was some cursory review of
3	our report, but not a consideration of our
4	report within the recommendations?
5	MS. HILTON: Right. Right. It was
6	you know, in editing some some of the
7	final editing of the report after it had been
8	through review, just to update it, was to
9	mention that your report had come out and try
10	to briefly capture some of the things that
11	were said. But the panel, no, did not
12	deliberate on your report's findings. the
13	panel finished its deliberations in late
14	April, with a final teleconference.
15	CHAIR BARROS-BAILEY: So if the
16	recommendations had been made before our
17	report was out, might that have impacted some
18	of the recommendations?
19	MS. HILTON: Certainly. I would
20	think we would have taken that into account.
21	CHAIR BARROS-BAILEY: Okay. Okay.
22	I'm going to open it up to the panel to see

if there are other questions for members of the panel. Sylvia?

MEMBER KARMAN: Hello. Thank you

very much, Tom and Margaret, for coming out today. I do have one question -- well, actually, I've got a couple, but one that just occurred to me. You mentioned that it, you know, wouldn't be practical to gather data at a more disaggregated level, and the level that we've been really looking at.

notice on page 7-10 of the second bullet under that content refers to occupational information is jobs not customized for in particular а organization. This inability to describe a specific job in detail can limit O*NET's utility for legal defensibility, and this is for personnel selection. We face the same issue --

MS. HILTON: Right.

MEMBER KARMAN: -- with regard to any occupational information system that we

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would need in order to meet our burden at step 5.

MS. HILTON: Yes.

MEMBER KARMAN: And so, therefore, that is why that is so, you know, incredibly important to us.

MS. HILTON: Yes.

MEMBER KARMAN: Among the questions that I have is also page 2-2 of your report provides five different questions that you all felt were important in assessing an occupational information system.

And they each -- one starts with, general specific will the how or descriptors of occupational requirements be? Second one is, given a particular level of generality/ specificity, should the set of particular descriptors of а occupational requirement be a representative sample of all possible descriptors of that requirement? should it represent the entire universe of descriptors?

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Third one is, should each descriptor of occupational requirements be applicable to every occupation or unit of analysis? Fourth is, is the taxonomy to include genuine taxons, such as those that exist in biology? This gets at the issue of skills that you mention there. Certainly, skills cannot necessarily meet the definition of a taxon.

Five, can the taxonomy be designed to serve a wide range of purposes among diverse users? I'm wondering how the panel answered those questions for O*NET, or did you feel that the Department of Labor answered those questions for O*NET? And then, also, how did you all assess those questions in terms of our -- the needs that were outlined in Chapter 8?

MS. HILTON: I think that these questions are raised as a way to introduce this whole chapter, which is about the history of the development of O*NET. You know,

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basically, near the end it said that the developers of O*NET have addressed all of these questions.

So basically they are kind of rhetorical questions, if you know what I mean, saying how general or specific should this be?

And then, if you read the rest of the chapter, you know, you will see that they ended up with something they called OUs, occupational units, and I think there were about a thousand of them.

So I don't think these questions are introduced, you know, with the idea that then our panel is going to answer these questions. As I say, it's a vehicle to get you to read on and find out, you know, what -- how the developers address these questions.

And as for our panel's view on the

-- for the first question, how general or
specific, as I mentioned, our panel did not
agree on how general or specific it should be
and recommended that it was important to study

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1	the pros and cons of being more and less
2	specific.
3	MEMBER KARMAN: Okay. I just want
4	to mention that when we our panel went
5	through the assessment of what basically SSA
6	gave the panel, its occupational information
7	needs, and a lot of what we did as a panel was
8	really address these kinds of issues.
9	And so what we're noticing is that
10	almost at every stage or at every question we
11	would have selected a direction that is
12	decidedly differently
13	MS. HILTON: Different from what
14	O*NET took, yes.
15	MEMBER KARMAN: from what the
16	Department of Labor did, because their mission
17	is decidedly different.
18	MS. HILTON: Right, right.
19	MEMBER KARMAN: Thank you.
20	CHAIR BARROS-BAILEY: Dave?
21	MEMBER SCHRETLEN: Good morning,
22	and thank you very much. I have a question

that concerns sort of the first recommendation in Chapter 8, and that is the recommendation that SSA and the Department of Labor create an interagency task force to study the viability of potential modifications of O*NET to accommodate SSA needs.

And my question concerns a point Chapter about that you make in 8 behavioral anchors for the rating scales. think it's on pages 8 -- 6 and 7 of Chapter 8. And you give an example of behavioral anchors for arm -- I think arm stability, and the example includes lighting a candle at a point of two on the ability scale. This is hand steadiness. And threading a needle at point four.

And you make the point -- you acknowledge in this report that there are problems with these behaviors.

MS. HILTON: With those bars, yes.

MEMBER SCHRETLEN: And there are a couple of them, and you cite a couple that are

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very clear, and I think that you did an excellent job of articulating some of the problems.

I do think that there are others as well that are not articulated there, but I think that the bars' anchors are intuitively appealing, but had a lot of scaling problems. And you mentioned the lack of specificity. In fact, that's sort of a theme that runs through, you know, Tom, your presentation as well, that the 52 abilities may lack some sufficient specificity for SSA's needs.

But with regard to this behavioral anchors, and the problems, those behavioral anchors and the 52 abilities that they have been used to assess, have been applied to the 1,102 occupational units in O*NET. And my question is this: if those behavioral anchors lack enough specificity for SSA's use, and have other scaling problems, how could it be modified, how could the existing database be modified for SSA's use?

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It seems to me that the only modification would be to essentially start from scratch, because you can't simply go back and reapply new behavioral anchors to the existing database. The existing database was developed using these behavioral anchors, and so the -- my question is: can you envision a way of modifying O*NET that does not include replacing O*NET?

MS. HILTON: I think that it deserves further study. That is what recommended, that it needs to be studied. one thing I would mention is, you know, in terms of the analysis in Chapter 8, that the whole focus -- it does not focus only on the abilities domain. You know, it also talks about the work context domain, and some of the other domains.

I mean, that is the thing about O*NET. As Tom mentioned, it is a general purpose. It is very big. It has 239 descriptors. It is like please all, please

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none, you know. It was designed for many purposes, and it doesn't serve any one user exactly the way that user would like it to be.

MEMBER SCHRETLEN: In fact, one of the things you said is that the panel could not agree on the appropriate level of aggregation.

MS. HILTON: Yes.

MEMBER SCHRETLEN: And that some people might think of that as a problem of the panel, but it strikes me that it's really not a problem of the panel at all, but the fact that O*NET -- that Department of Labor has attempted to make a sort of all-purpose occupational information system.

And there are -- different purposes have different requirements, of course. So for some reason, as you pointed out very appropriately, some users might want a more aggregated, more disaggregated system.

But my question about this bars issue is really not one that I think further study

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1	could address, because it's illogical. My
2	question is: is there a logical way is
3	there a way that it could be modified without
4	replacing it? And I don't think that that's a
5	question that really that further study
6	will answer. I think it's a question that
7	is it that a logical analysis of the existing
8	system leads to an answer?
9	MR. PLEWES: I agree with you. I
10	don't believe that you can fundamentally
11	change the anchors and retain the system as it
12	is. But the panel didn't look at that.
13	That's just my sitting here thinking about it.
14	Now, how about tweaking?
15	MEMBER SCHRETLEN: That's what I'm
16	asking.
17	MR. PLEWES: I think it would be
18	possible, with proper research, to tweak. If
19	indeed the result of the tweaking brought it
20	closer to the Social Security Administration's
21	RFCs than the current system, without

fundamentally changing the result.

1	MEMBER SCHRETLEN: Okay. So that
2	is so that is wonderful. Then, how can
3	you imagine even one way that it could be
4	tweaked? That's what I'm trying to get at.
5	I'm trying to understand how this could be
6	done without fundamentally recreating the
7	database, because, you know, either the bars
8	
9	MR. PLEWES: I don't give you an
10	answer. In a research approach, I would think
11	I would compare results of current with the
12	tweaked, and then to see what the differences
13	are. But I don't know.
14	MEMBER SCHRETLEN: So you are
15	suggesting like starting with new behavioral
16	anchors.
17	MR. PLEWES: Yes.
18	MEMBER SCHRETLEN: On some of the
19	existing occupational units.
20	MR. PLEWES: On those of most
21	interest, where the deviation between the
22	descriptors, the anchors current anchors

for the descriptors and the RFCs are -- have the greatest differences that are very, very important to the Social Security Administration processes. But that's me. I -- the panel didn't look at that, I have to tell you.

MEMBER SCHRETLEN: Right. I guess the question is, if you were to find a correspondence between revised behavioral anchors and existing behavioral anchors, that still wouldn't answer the question of what to do about levels of ability that fall between those points on the scale.

MR. PLEWES: No.

MS. HILTON: I mean, we definitely thought there needed to be research on the behavioral anchors, but all of our research recommendations don't necessarily mean that we think that O*NET has to be rebuilt from the bottom up.

There are always costs and benefits to making any change to a big system like

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this, and this is why we thought they needed an outside ongoing expert technical advisory committee, one of the reasons being to prioritize what research is most important, and, secondly, what are the potential costs and benefits.

You know, some people are very, very critical of the behavioral anchors in O*NET. Our dissent, if you read the dissent to our report, the two dissenters say, "Just get rid of -- get rid of the behavioral anchors on the level scale," because they are so problematic. The rest of the committee did not agree with that.

Nevertheless, even the dissenters do not say we should scrap O*NET, that we need to start over. So as Tom mentioned, there are a lot of tweaks. You can make modifications. And then, there are costs and benefits to doing that.

CHAIR BARROS-BAILEY: When you say "tweaks," what do you mean?

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1	MS. HILTON: For example, the two
2	people that dissent to say that we should get
3	rid of the level scales in the abilities and
4	skills domains, and only use the importance
5	scale, and that they also suggest maybe we
6	should be looking at other scales, such as
7	frequency or duration.
8	I think that relates a little bit
9	to the Chapter 8, the comparison of how much
10	time do you spend sitting, kneeling,
11	crouching, and it is like half the time, all
12	the time, whereas for RFC purposes you need
13	actually number of hours. So things like
14	that.
15	CHAIR BARROS-BAILEY: And you
16	mentioned the work context, you are referring
17	to 38 in your slide that talks about how much
18	time in your current job do you spend
19	kneeling, crouching, stooping, and crawling.
20	MS. HILTON: Right.
21	CHAIR BARROS-BAILEY: And for
22	disability determination, we might have
	· · · · · · · · · · · · · · · · · · ·

somebody who has a shoulder injury who can do kneeling, crouching, and stooping, but they can't do crawling, because that involves the upper extremity. So are you talking about not just changing the anchors but also changing the descriptors?

Definitely. I mean, MS. HILTON: we called for research into the descriptors. We said that the content -- what was the exact lanquage? The content validity of the domains and the descriptors is uneven. We think that domains, like abilities, in some descriptors are stronger, they have a stronger research base. In some of the other domains, like knowledges and skills, there is not such a strong research base.

So here again, I mean, I think some people would say that our report is radical, because how could you go back and look at the content model. The content model is perfect, it's -- you know, it was studied. It was studied a long time ago. We think it is time

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for a fresh look at this.

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CHAIR BARROS-BAILEY: Sylvia, and then Shanan.

Okay. MEMBER KARMAN: I quess it like the panel must have had seems things, though, in mind, you know, just sort of piggybacking on what David has asked, and Mary has brought up, because, you know, on page 8-3 the panel -- the National Academies of Science report, its panel stated that the panel is not advocating the adoption of O*NET by SSA, or the development of a hybrid O*NET disability system in the disability determination process.

However, we conclude that a considerably modified or expanded O*NET would be capable of informing the disability determination process.

So for one -- one question I have is that this seems contradictory, but, you know, then the other question I have is, given the discussion that we've just had for the

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last few moments, it seems as if you all may have had something in mind, what would that modification look like that would not, as David pointed out, or as Mary brought up, really require extensive change to the point where it would be impractical and not a cost savings in terms of, you know, not requiring two different systems.

MS. HILTON: And I have to say I really can't answer this question, because, I mean, this is really what the panel thought, what we have here in the report. The panel is not meeting anymore. As Tom mentioned, you know, we didn't look in-depth at this whole disability question. We took a quick look, and we thought it needed further study. important to both agencies, since it was that's why we suggested that the two agencies study it together.

CHAIR BARROS-BAILEY: Shanan?

MEMBER GIBSON: My question will likely be a simple followup to that, then, or

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actually I have a couple of questions. The first was, I noted that the chapters did not identify the primary authors for each chapter. Is it possible to find out who the primary chapter author was for Chapter 8, so that, for example, in this case we could ask them, what were their thoughts perhaps related to those comments, so that we understand better, so we have the information going forth.

MS. HILTON: No, I don't think so. You know, it is a committee consensus report. If one panel member did take a lead on a chapter, that chapter did not go forward for inclusion unless the rest of the committee agreed to it. So we really try to talk about these as committee reports, not -- they are like edited chapters not by individual authors. It's a consensus.

MEMBER GIBSON: It just seems that there is very great distinctions among how the different chapters are written, so, for example, Chapter 7 does a very good job of

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identifying specific issues related to psychometrics, which might impact the use of the O*NET. And then, we see nothing similar to it in other chapters, like ours, so I'm person probably thinking wrote this one chapter, and so their styles are very distinctly different, which is what leads me to that conclusion.

My other -- my second question -so I guess I have three now -- is in the very
beginning of your discussion you talked about
how you received a review of the report and
created a response to the reviews. Are those
part of open documentation, so that we could
look at them as well?

MS. HILTON: No, they're not.

MEMBER GIBSON: Okay. And then, my final question is simply to try to make certain I understand kind of your overall theme here. Is it a -- am I understanding correctly when I say that it appears the overarching decision of the panel was that the

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1	O*NET is a general purpose instrument, which
2	means it will meet the needs of some but not
3	the needs of others, it will meet the needs of
4	individuals and groups to differing degrees,
5	and, therefore, other systems might be
6	necessary or appropriate to meet the needs of
7	different organizations.
8	MS. HILTON: I don't know that we
9	commented on whether other systems were
10	necessary, but certainly what you said about
11	how it's an all-purpose and it meets some
12	needs but not other needs, that's correct.
13	MEMBER GIBSON: So the logical
14	conclusion of it doesn't meet the need,
15	something else must
16	MS. HILTON: It could be. I mean,
17	we have to we are representing what's here
18	in our report, so we can't
19	MEMBER GIBSON: And that's
20	MS. HILTON: go beyond what our
21	panel said.
22	MEMBER GIBSON: Okay. Thank you.

CHAIR BARROS-BAILEY: Tom?

MEMBER HARDY: Good morning. It is a real pleasure having you here, and I -- I would imagine all of us would like to spend two hours talking with you, because we all have volumes of questions. And so I'm not going to take a lot of time, I just have two because in my role here -- I'm a vocational counselor, but I'm also an attorney.

So I've got two different interests, and they each are and question is that -- I actually rather more have a discussion than a question, if you want to know the truth. One is more for you, Ms. Because of my vocational background, Hilton. very interested in skills, and transferability of skills.

And we are working right now on coming up with a definition, and I noted in the report you spoke several times about the fact that O*NET doesn't truly define "skills," and that it is kind of difficult in some ways

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to track skills using their raters for skills.

In doing that -- in reading that, I also read went out and read a little further, and I found your report on future skill demands.

MS. HILTON: Okay.

MEMBER HARDY: Which I read, and I thought it was fascinating. I really loved reading this.

MS. HILTON: I'm glad you liked it.

MEMBER HARDY: You did a great job.

MS. HILTON: Thanks.

MEMBER HARDY: And it really made me think about a lot of things. But what really stuck with me -- and I go back to what you said about we are very concerned about SSA and what those needs are, but there is broader context, and I get -- and that report really broadened my context of how skills can be used, and for workforce development, workforce planning, education, and huge numbers of things.

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1 But what struck me was all the way 2 through here everybody kept commenting on how O*NET was not going to be useful, for the most 3 part, in answering the workforce development 4 questions. Is that a good reading on this, or 5 am I kind of skewing it because of something 6 7 else? MS. HILTON: Well, actually, I am 8 not sure that -- you are talking about the 9 10 workshop report on future skill demand. Future skills, yes. 11 MEMBER HARDY: The MS. HILTON: people 12 13 critical of O*NET in terms of its ability to identify changes over time in the national 14 different skill demands of work. 15 MEMBER HARDY: Yes. 16 MS. HILTON: I think that someone 17 at the workshop did make that point. 18 19 think there are some questions, you know, if you are looking at it strictly from a research 20 point of view, whether the data in O*NET could 21

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be used, if you could track it for 20 years,

which it hasn't even existed for 20 years -MEMBER HARDY: Yes.

MS. HILTON: -- and compare versions of the database every five years, and look at what levels of the skills were reported in 1995, 2000, 2005. I mean, I do think it's theoretically possible that you could use O*NET for that purpose.

But with regard to that question that you are talking about, I think that the discussion in Chapter 7 of our current report does a pretty good job of talking about how very useful O*NET is for this kind of labor market research as things change and as economists try to understand what is growing — not only what is growing and shrinking, but, you know, within jobs, within a given job title, what the demands are.

MEMBER HARDY: And I get that, and I guess what -- this is more of a discussion, truly. I am wondering if we go ahead with what we're doing, and get skills defined down

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to a job level, and are able to really anchor that and not use some of these O*NET descriptors, which Dr. Spenner from Duke was talking about the O*NET descriptors of skills as being --

MS. HILTON: Ken Spenner from Duke, yes.

MEMBER HARDY: Yes, being we'll just say unwieldy. If we were able to get to a better definition of "skill," take it to a job level, and then actually track that, wouldn't that be more useful than using O*NET for those purposes, that this -- the other paper was talking about?

MS. HILTON: I don't know. Like I say, I mean, it is -- your question is very, very theoretical. I mean, we are talking about creating a whole new database, and the first -- what you're talking about is Then, is that database going to first step. broadly representative, you know, be representative of the jobs in the national

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1	economy? That's the second question.
2	The third question, you know, if it
3	had a better if it had better descriptors
4	of skill, yes, I think that could be useful.
5	MEMBER HARDY: Okay. My other
6	question is more of a legal question, because,
7	again, I'm an attorney, and I have to worry
8	about these things. And this is more for you,
9	Mr. Plewes. You were talking about doing some
10	tweaking or nuancing, and trying to find ways
11	where the marginal differences could be
12	brought down.
13	In constructing your report, did
14	you guys talk to any attorneys about legal
15	defensibility issue?
16	MR. PLEWES: We recognized that
17	there were those, but we no, we did not
18	talk to if I had known that we were going
19	to be here today, we probably would have gone
20	
21	(Laughter.)
22	to an attorney as one of our

presenters, I can tell you that, and a vocational rehabilitation person, thank you very much. But no, we did not.

MEMBER HARDY: Okay. My concern is that, you know, everybody on the panel looks at me and goes, "Oh, you're the lawyer. Make sure we've got it right." And one of the things I always say back is, "If and when we develop -- or when we develop this system, every piece of it must be legally defensible, because if one piece fails the test, the entire system fails the test."

And in a broad sense, I kind of come back to you and say if we're looking at O*NET and I see in your report you speak multiple times about areas that are flawed, how can we -- how can we work around that if there is a legal defensibility issue, in your opinion?

MS. HILTON: Well, I'm not sure if it's exactly the same thing, but I know that some of the panel members that work in the

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field of selection and development of selection tests, which are very often subject to legal challenges, mentioned that they find O*NET information very, very useful, but they use it as a starting point.

Like if they are trying to create a selection test, they start with an occupational description, and that gives them the basic foundation of information. But then, they add а lot more specific information, specific to that organization, that more narrowly defined job title, and so forth.

MEMBER HARDY: Okay. I guess just so you understand, when we go to court, whether it's in Social Security or -- many of those cases then end up in federal court, which is subject to federal rules of evidence as well.

If you build something on any platform, that platform still must be defensible under the same rules of evidence.

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1	And that is an issue that I have.
2	MR. PLEWES: And I think the
3	question for your panel is to is to think
4	about O*NET in that case as a framework. And
5	I think it's fairly clear that O*NET is a
6	framework. It would probably be preferable to
7	the DOT as a framework in terms of some of the
8	things that it offers in terms of its tying to
9	the SOC and its updating, and so forth.
10	But that, as Margaret suggests from
11	other areas, that there probably needs to be
12	within that framework a lot of adjustment to
13	meet the requirements that you have.
14	MEMBER HARDY: So you would still
15	advocate O*NET over DOT as a basis.
16	MR. PLEWES: I think that was done
17	some time ago.
18	MEMBER HARDY: Okay.
19	MR. PLEWES: That decision was made
20	in terms of a framework for looking at the
21	issues.

CHAIR BARROS-BAILEY:

22

I have --

MEMBER HARDY: I could talk to you for hours.

CHAIR BARROS-BAILEY: Okay. I have a quick question about that. In the days of PDF, it's very easy to search a report in terms of key word, so I did search the report in terms of "legal" and saw that there were only two references to it. One that Margaret just mentioned, page 7-3, in terms of a starting point, and the other one that Sylvia had mentioned.

And in both of those instances it it. indicates that the O*NET is not defensible, the and so those were only mentions that I was able to find in the report in terms of the defensibility. And so I think Tom's question is, if when you look at pages 11 and 12 of our report in terms of the must needs of an occupational information system, and the third one being legal defensibility, it becomes a really big issue, if, you know, there are aspects of the O*NET that are not

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legally defensible.

Mark, you had a question?

MEMBER WILSON: Yes. Welcome. It's good to see you again. It's a real honor to be here today speaking with you about very important issues. And, as you see, I have to, as the IO psychologist along with Shanan, deal with very diverse sets of issues in terms of making recommendations about occupational information for this purpose.

And as you know, we exchanged some correspondence, and so I -- and I know you might not -- because Mary and others were asking you some specifics about changes, but I just wanted to check to see in a couple cases if some of the things that we discussed might have gotten changed.

The first one was early on in the report it -- and we discussed this as a potential typo -- refers to O*NET as a system providing information about jobs when, in fact, it is really an information system about

occupations. Do you remember if that got changed to occupations instead of jobs?

MS. HILTON: I know we went through the report before and after review, because we got comments about that also in review. And I think that in many places we changed the word "job" to "occupation." But I don't believe we changed it in every single place, and that was partly for purposes of readability by someone who doesn't know anything about occupations, occupational analysis, or anything.

The term "occupation" had not yet been introduced, so that you might still see in some of the early pages of the report references to "job."

MEMBER WILSON: Yes. And I think, you know, the reason we discussed that was because it is sort of -- O*NET clearly doesn't provide, you know -- and it gets some of these others, but, you know, I certainly understand that.

The second question I had that we

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discussed -- and this was kind of more of a wish, I don't know -- and you talked about and had a slide about the advisory panel, and in your report you refer to it as external, and we discussed the idea that we need to define the term "external." This is not contractors.

Were you able to make any changes there in your report to specify what you meant by "external," so that when the agency got this they would understand what that meant in terms of your intent, or --

MS. HILTON: I am not sure what we did there.

MEMBER WILSON: Sure. I completely understand. The other two things in terms of wishes -- and these I suspect you weren't able to do a whole lot about, but I thought I would ask. As other people have indicated, you know, we don't get someone -- the National Academies of Science prestige in work analysis very often to look at these issues and make these kinds of reports.

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And so I was -- was as sort of my wish list saying that I wish you would have addressed evaluation issues and work analysis in terms of specifying what some of the criteria were that the external panel might look at. Did you make any changes there to say, you know, we want you to look at X, Y, and Z? Or, you know, these are the --

MS. HILTON: Well --

MEMBER WILSON: -- fundamental evaluation criteria that should be considered?

MS. HILTON: Right. As I mentioned, our policy is not to make changes to any major conclusions or recommendations. So, I mean, that would involve making a change to a recommendation with more detail, so --

MEMBER WILSON: Sure. No. Ι understand. And the other thing we discussed -- and some places you talked a little bit about panel formation, things of that sort. it always clear what But wasn't the methodology was in terms of how the panel went

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about -- you know, Tom mentioned that there were experts that were aware of the literature and did lit reviews and things of that sort.

But was there anything added more?

And I think this gets some to Shanan's question. We really want to understand what

7 the mind of the panel was with regard to

several of these specific issues, because we

are struggling with them. If there is some

methodological issue that we need to address,

11 we want to know that.

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Were there any expansion of, you know, here's how we went about coming to this particular conclusion in any cases? Do you -MS. HILTON: Well, we did try to base our conclusions on all of the input we

17 received in our two workshops.

MEMBER WILSON: Right.

MS. HILTON: And also, the panel members' own expertise and knowledge. We talked in closed sessions about what exactly we thought our major conclusions would be. We

basically went through several rounds of deliberation about our conclusions and recommendations, where we were talking about them in person, we talked about them in teleconference, and then we would send them out to the whole committee --

MEMBER WILSON: Yes.

MS. HILTON: -- trying to reach consensus. And, you know, we did not reach consensus on some issues, as you know.

MEMBER WILSON: Right. Absolutely.

And especially with regard to the disability issue, you know, you mentioned that it was a much more general panel, and this wasn't --

MS. HILTON: Right.

MEMBER WILSON: -- necessarily an area where you acquired experts. Were any disability experts, as part of the methodology you describe, which is sort of trying to gain consensus -- did you -- did they bring anybody with expertise in for any of those deliberations other than the panel meetings

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MS. HILTON: No.

MEMBER WILSON: The next issue, which you had in your slides and I wanted to ask your thoughts on, is that the effective measurement error is unclear. And as you know, in the second panel meeting, Dr. Harvey made a presentation where, among other things, looked at calculation of reliability he coefficients in O*NET data.

MS. HILTON: Yes.

MEMBER WILSON: And he made the point that -- which is unique to generic work analysis, that there are lots of "does not apply" responses in any sort of occupational level profile that would be generated. So in any individual case, a large part of the O*NET descriptors in whatever domain are not going to be relevant to describing that particular occupation.

And so when you calculate reliabilities on the entire profile, you get

numbers that look pretty respectable, but he presented data that seem to -- when you calculate the reliability on just those things that are relevant, there are dramatic, breathtaking, shocking declines in terms of the stability of these data.

So I guess my question is: was there something unpersuasive about that data?

Or why is it that the panel seemed to come to the conclusion that there were unclear measurement effects?

MS. HILTON: Do you mean, how did we come to the conclusion that the effects on measurement error are unclear, because every new method adds to the uncertainty?

MEMBER WILSON: Well, I just meant that that data was pretty persuasive to me, and its impact in terms of the following panel discussions, you know, I mean, it just seemed like that presentation sucked a lot of air out of the room in terms of, you know, I mean, there were people that seemed shocked when

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1	they saw the reliability coefficients that
2	were calculated on some of these data that
3	people are using that appear to be almost
4	noise.
5	I guess that's what I'm saying is
6	is that why my question is: was there
7	something about that presentation that was
8	unpersuasive with regard to measurement error?
9	Or why was there the conclusion that
LO	measurement error effects were unclear? Is it
L1	just because of the multi-method, is that what
L2	you're saying?
L3	MS. HILTON: Right. That
L4	conclusion is really focusing on the whole
L5	multi-method issue.
L6	MEMBER WILSON: Yes.
L7	MS. HILTON: It relates to the
L8	whole issue of using job incumbents, but also
L9	occupational analysts.
20	MEMBER WILSON: Right.
21	MS. HILTON: The fact that job
22	incumbents have strengths and weaknesses as a

data source.

MEMBER WILSON: Right.

MS. HILTON: They have the strength, they -- obviously, they work in the job, so they know something about it. But as you very well know, there is a tendency for job incumbents to inflate --

MEMBER WILSON: Absolutely.

MS. HILTON: -- you know, the abilities and skills of a job. Similarly, within occupational analysts, again, you have strengths and weaknesses, strengths that you are dealing with someone who is very well trained to do this kind of ranking --

MEMBER WILSON: Absolutely.

MS. HILTON: -- a weakness that they are not as familiar with the job, with the occupation, and depending on the quality of information you provide to them, or whether they would get a chance to actually go to the field, which in O*NET case they do not actually go. So that's what that conclusion

is really based on.

MEMBER WILSON: Those are all excellent points, especially that issue of inability to observe. In fact, what I would suggest is that that may be the reason why some of these data were presented -- are what they are, that these people aren't necessarily providing data based on direct observations of what actually occurred.

MS. HILTON: Yes.

MEMBER WILSON: And then, my -it's not so much a question. It is taking me
a while, but I'm trying to learn from Tom and
Nancy. It seems like the sort of crux of the
discussion here, which your panel dealt with
and ours dealt with, and that I described to
you as sort of a fundamental distinction or a
different way of thinking, I suspect I know
who on the panel was more concerned about
disaggregation, because IO psychologists have
to deal with things at the organizational
level, at the job level. And I described it

there as a distinction between the econometric and the ergometric approaches to doing work analysis.

And I'm just wondering about your Ι understand the efficiency thoughts. argument, and I very much understand the currency argument. Shanan and I made some presentations where there is good interreliability here between what you recommending and what we said with -- you know, you can have the greatest data system in the world, and if it's not current, that is a problem.

And you're right, as the number of descriptors and the number of disaggregation increases, there is definitely more data cost.

But I'm just wondering, is it possible that the sort of top-down econometric, more rational, big picture is very different than the sort of bottom-up, here is work as it actually exists in the economy. I mean, do you have any thoughts on that?

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1	Is that potentially an area where
2	we can sort of find that there really maybe
3	are two fundamental different approaches that
4	can't be very easily reconciled, and that
5	trying to reconcile them is always going to be
6	a sort of lever between either making the
7	econometric approach unhappy, because there is
8	too much detail, or, you know, perhaps moving
9	in the other direction now where there is
10	simply not enough detail from a defensibility
11	any thoughts at all on that or
12	MS. HILTON: Do you have any
13	thoughts about that?
14	MR. PLEWES: Just hearing you, when
15	we had our meeting, and again now, we
16	certainly wish we had invited you to give a
17	presentation before the panel, because I think
18	some of these thoughts probably would have
19	been very valuable to them, and they would
20	have been willing to address them.

In their saying that they -- that

like the idea, I'm putting words in

they

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there, but the recommendation is that if we don't change at least the linkage between the SOC and the O*NET, that kind of they say that the top-down approach -- that is, that the importance of the linkage to the national databases is very, very important.

Now, what they didn't do is take a look at what you are suggesting, and that is that there may be another way of looking at this. I didn't see evidence that they had given that full thought.

MEMBER WILSON: Well, I certainly agree, and I think that the sort of -- there are a couple of questions here. One is the -- how do you describe the work? And, you know, am I going to be able to defend whatever the analysis is when Tom halls me into court? You know, all those kinds of issues.

But I think you make an excellent point that linkage back to what Social Security is not going to be able to do is have their own Bureau of Labor statistics and make

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1	projections about where you know, so I
2	think that linkage and, in fact, we made
3	significant recommendations in that area to
4	link back to those systems. I think we are
5	very aware of the value of the econometric
6	approach and that from a sampling
7	standpoint.
8	In conclusion, I just welcome to
9	my world. I know that this is sort of a
10	departure from how you normally conduct
11	business and things of that sort. I very much
12	appreciate you being here. I mean it when I
13	say it you know, it has been an hour to
14	interact with you on these issues, and I
15	appreciate the expertise that you bring to

So thank you.

MS. HILTON: Thank you. Thank you for giving us an opportunity to share the panel's work with you all.

CHAIR BARROS-BAILEY: Thank you.

Bob, do you have a question?

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this topic.

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MEMBER FRASER: No, it's really of а vocational more comment. I'm rehabilitation counselor and rehab psychologist also, and I and the folks -- the counselors in my unit, we do use O*NET purposes of vocational exploration and career quidance.

But in responding to a company relative to the legal defensibility whether a person can do a job, we simply can't use it, because it's functionally and skill-related, etcetera, it's simply not discrete enough. It's relative. So relative doesn't work, you know, for us, and that's part of our charge here in SSA.

And kind of going back to Dave's comment, you know, or the issue is, can we tweak these scales? Well, you know, we have that problem with aggregation, you know, so say we have 18 truck drivers in that occupation. So we have anybody from an access van driver to an interstate trucker, you know,

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a wide variance in terms of the demands of that kind of -- for those different types of jobs.

So I just don't see how, in an interagency effort, how we could work on this tweaking with this core problem of aggregation being an occupation versus the range of jobs being represented.

MEMBER SCHRETLEN: In fact, as I was thinking further about it, I thought maybe I was not very clear in my question. But just sort of following up on that, I think the idea of what a modified O*NET system might look like, I'm trying to envision that.

And it seems as though, based on the things that you have said in your report, O*NET the limitations of that you have acknowledged or recognized, that at minimum a modified system would need to not merely add more specific jobs, but actually replace a lot occupations, because of the they are broadly aggregated, or occupational units,

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because Social Security simply cannot compare an applicant to an occupational unit. They have to compare them to jobs, specific jobs, or, you know, clusters of jobs.

So it would at least require a very broad supplementation, if not а complete replacement, of those occupations, that that abilities are rated, the doi characteristics that are rated would have to more specific. And if they're specific, you can't -- you would have to go back either to previously evaluated ones and add those, or start from scratch with new ones, and evaluate those new dimensions of job characteristics.

And in any case, you would have to go back, because the bars are problematic. And in a sense, you would have to revalidate all of the ratings across the entire system, and that's why I'm saying I just don't -- it's hard for me to imagine how -- I mean, we can use the word "modification," but it's a -- it

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would be a radically different system. That's the only thing that I can imagine. I mean, can you imagine -- can you help me imagine some way that it's not that?

MS. HILTON: I have a very weak imagination.

(Laughter.)

But I guess what I wanted to mention is that this whole issue of, you know, once you've created something, and O*NET is very big, do you want to change it? Can you change it? If you change it, will it disrupt, you know, what we have in place?

And I guess I would just say that our panel felt that it was worth causing some disruption if it would result to longer-term improvements in the quality of the data. So I think that's true of any database. If you go ahead and create your own, I mean, that's something that you will always have to be thinking about, because it's not like you just create an occupational database at one point

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in time and just leave it. So --

CHAIR BARROS-BAILEY: Nancy?

MEMBER SHOR: Thank you. I want to thank you very much for coming. This has really been fascinating. I am interested in what sort of response you have received formally, informally, that you expect to receive from the Department of Labor, that we — we are kind of asking you questions about how O*NET could be modified, how O*NET could be changed, and I think in many ways those questions really are best directed to them.

But, you know, your process is extremely familiar to you, but not to me. Is there a role, has there been a role, do you anticipate a reaction from them?

MS. HILTON: Well, we had a briefing with them in late November, and they seemed really interested in a whole report. They are very surprised by some thing, like when we mentioned that green jobs might not -- might be a distraction from the core database

they all like were shocked, because they are very focused on green jobs these days.

Since that initial briefing, we haven't really heard from them. As Tom was mentioning at breakfast, we think that when the printed report comes out that they will pay more attention once again. I can say with specific regard to that recommendation for a joint interagency task force that they were very interested. They thought -- they seemed to think that that would be a great idea, that they would love to coordinate more closely with SSA.

CHAIR BARROS-BAILEY: And when I started the meeting, I talked about what the Commissioner has asked us to do in terms of the four points. And one of them was the recruitment, training, and certification of field job analysts. So I was looking for a lot of that information in your report to see how the panel came at that.

And the sense I get is that it

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wasn't really even a question addressed. And my question, because I'm a little intrigued by that, my question is, especially in light of a whole chapter on technology, when the APDOT was looking at data collection methods, and ruled out the use of field job analysts, the technology was very different then. There has been a lot that technology has done in the last 20 years.

So was there -- I'm just wondering why there has -- there wasn't even a question of the use of field job analysts and data collection with O*NET, in light of the fact that it had been almost 20 years since the APDOT started their work that led to a lot of the decision-making and design.

MS. HILTON: I guess I would just say that the -- that issue appears slightly in Chapter 2 in the whole discussion of the data collection and the fact that the occupational analysts in O*NET don't go to the field and don't -- you know, they only receive paper

descriptions.

But it wasn't something that our panel really looked at, because we were trying to look at O*NET as it is now. Actually, I don't know whether it's still relevant, but if you are interested in this whole question about field job analysts you might want to go back and look at the 1980 report, because they found a lot of problems where those field job analysts were not following the protocols that had been developed nationally, and also they weren't even finding enough -- there were supposed to be at least three analysts I believe rating every job title, and in a lot of cases there was only one or two.

So it is a very complicated issue, and there might still be something in that older report that would be relevant, as you think about that now.

CHAIR BARROS-BAILEY: Thank you.

Dave?

MEMBER SCHRETLEN: Yes, one other

question about the recommendation to focus resources on core database activities, leaving development of most new applications and tools to others.

If Department of Labor asked you, would you regard expanding the use of the O*NET to make it suitable for disability determination a core part of the database activities, or is that one that you would advise them to farm out to others?

Well, that's MS. HILTON: reason we suggested a user advisory panel to try to deal with some of those issues. definitely recognize you know, we that different users have different needs, and this whole area of application -- yes, it's -- you raise a very good question. That's all I can I don't have the answer to it, but it's an important point.

CHAIR BARROS-BAILEY: Tom asked some questions about skills. And I noticed there was not a discussion about the

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application or the importance of skills and skills transfer within Chapter 8, but there was in other areas of the report a lot of discussion about skills.

As a matter of fact, Chapter 10, the number one priority in terms of all of your recommendations is conducting research on the content model, beginning with skills and knowledge demands.

MS. HILTON: Right.

CHAIR BARROS-BAILEY: And I know your report talks about that there were even problems of how to define skill, and I think five different there like four were or definitions, and then the one that was arrived at was -- which was sociotechnical skills, it indicates that there was a view that this was the most prominent. There was no underlying researcher data to bolster that decision. what is currently being used as a theoretical framework for skills does not have a body of research.

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Are you aware of how skills domain
within the content model for the O*NET is
applied, or can be applied in disability, or
any transferable skills assessment?
MS. HILTON: Not specifically with
regard to disability, but in Chapter I
think it's Chapter 6 in the workforce
development chapter, we talk about a number of
electronically created databases that link the
various domains in O*NET skills, abilities,
knowledges and compare that with what an
individual has, what they think their level of
it is, and then it can be linked to other
jobs. So there is some progress being made in
that area.
CHAIR BARROS-BAILEY: And I think
one that I saw on the O*NET Academy was one
called TORQ.
MS. HILTON: Yes.
CHAIR BARROS-BAILEY: And that
talks about an RV team assembler in northern

Indiana, where, through that system, the

transferable skill that is derived is a dental 1 2 hygienist. MS. HILTON: Oh, right. 3 BARROS-BAILEY: 4 CHAIR But in disability determination, retraining cannot be 5 6 considered when looking at transferable skills. We're looking at residual, not rehab 7 potential. 8 MS. HILTON: I see. 9 10 CHAIR BARROS-BAILEY: So in that instance, I haven't found a way to be able to 11 use any of the O*NET data for transferable 12 13 skills assessment, where we are looking at residual issues instead of rehab potential. 14 15 Have you seen that application whatsoever? 16 MS. HILTON: I quess I -- I am not that familiar, but what is just popping to 17 mind -- and I don't know that this is really 18 19 ever done. Ι am more familiar with the applications that I mentioned to you, 20 TORQ. 21

It seems that, in theory at least,

that a person could use O*NET, or a counselor working with a person could use O*NET, and whatever jobs, occupations they had had in the linked past, jobs could be to O*NET the level occupations, and then of the different skills, knowledges, and so forth, required in those previous occupations could be identified.

Then, it would be possible to identify other occupations that use those same levels of skills and identify a new occupation, without requiring any training in between, if you see what I mean.

CHAIR BARROS-BAILEY: And I Yes. think Т think when look at we occupational unit that is representative of the team assembler and the dental hygienist, and we look at the DOTs -- the aggregated initially under those OUs, they were pretty heterogeneous as opposed to homogeneous, and a lot of other --

MS. HILTON: Yes.

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1	CHAIR BARROS-BAILEY: And so it was			
2	still it would be very difficult for me as			
3	a vocational expert to have Nancy or Tom			
4	cross-examine me and say, "How did I go from a			
5	team assembler to a dental hygienist?" in			
6	terms of transferability.			
7	MS. HILTON: I see.			
8	CHAIR BARROS-BAILEY: Particularly			
9	if I can't consider retraining.			
10	MS. HILTON: And proving that they			
11	really were capable of becoming the dental			
12	hygienist without any retraining, is that what			
13	you're saying?			
14	CHAIR BARROS-BAILEY: Correct.			
15	MS. HILTON: Yes.			
16	CHAIR BARROS-BAILEY: Or			
17	licensing			
18	MS. HILTON: Yes, right.			
19	CHAIR BARROS-BAILEY: in many of			
20	the states.			
21	MS. HILTON: Right, right.			
22	CHAIR BARROS-BAILEY: Okay. Any			

other questions? Deb?

MEMBER LECHNER: I get the underlying current from your report that one concern about maintaining two separate databases is the cost effectiveness issue of Social Security Administration maintaining a separate database from Department of Labor.

But I didn't see anything in the report that spoke to the cost effectiveness of the data collection methodology used by Department of Labor at the present time. And, you know, when you look at 100 occupations a year, and \$6 million a year to maintain an updated database, that sort of rounds out to \$60,000 per occupation, so -- which I find is really an astounding number.

So I just wondered if there was any consideration to the current cost effectiveness of the process.

MS. HILTON: I guess the -- we didn't really reach a conclusion here, but we did talk at least -- I think in two places in

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the report we talk about the whole tradeoff question. There was certainly an idea that if some research was conducted on some of these domains and descriptors that perhaps not all of those descriptors were necessary, because there are 239, which is a very lot. Maybe that's why it costs \$60,000.

So if research would find that there would not need to be quite so many knowledges or skills or problem-solving, which appears in four different places, so that what -- it's called pruning, the idea of pruning it down a little bit, that would definitely improve the cost effectiveness of it.

But we didn't go specifically into the costs of, you know, doing surveying job incumbents versus using occupational analysts, and so forth. We didn't have the data to do that for one thing.

CHAIR BARROS-BAILEY: Any other questions?

(No response.)

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1	Okay. I have one last question.		
2	And you just heard from Deb Lechner. Deb is		
3	the person that I mentioned when I met with		
4	you, that she and Joe had done the study that		
5	is mentioned in Chapter 8 in reference to the		
6	IOTF. And that reference in Chapter 8 makes		
7	it seem like the concept of the O*NET D was		
8	being tested by that study, and in reality		
9	that was a study of field job analysts.		
10	And I is that an area of the		
11	report that has been corrected in terms of a		
12	clarification of what how that study is		
13	represented?		
14	MS. HILTON: Yes, we did make that		
15	change.		
16	CHAIR BARROS-BAILEY: Thank you.		
17	Thank you.		
18	Any other questions from the panel?		
19	(No response.)		
20	Thank you. It has been a great		
21	pleasure to have you here. I think our		
22	discussions are really important. There are a		

lot of things that I learned in terms of your process, in terms of where the report was issued along that process. There were some conclusions that I was coming to in terms of what your report meant within that context that I think were clarified today.

And I do want to point out to everybody that there was a section of your report on page 1-11 that I thought was really important in terms of the distinction between what we're doing here and the fact that we are a panel that keeps on going, and that your panel was really time-limited. And so I think that's important to understand reports and context.

And in page 1-11, it says in some cases the evidence that could be assembled and considered with the available resources within the timeframe of study was insufficient, leaving the panel with unanswered questions. And so I think that's really important for us to acknowledge, that

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what you said at the very beginning of your presentation, that there were some areas that you just didn't have an opportunity to address.

And so I know some of our questions are way more detailed than you had the opportunity to cover. And so I thank you for the time that you have spent with us today, for answering our questions, and for the opportunity to speak with you.

It looked like Mark wanted to say something. Did you want to say something?

Okay.

MEMBER WILSON: Just more of a comment in terms of this, because I think it's a very relevant issue, this sort of costbenefit analysis, and the resources required to keep things current and up to date.

And if you look at it from a sort of classical occupational analysis standpoint, and you're the Department of Labor, where this is a relatively small, you know, potentially

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in some bureaucrats' minds, insignificant part of what the Department of Labor is all about, the resources that one might devote to that, and the justification for those resources is very different than, you know, I perhaps I should have, but it wasn't until fairly far into the process that I understood the scale of the operation on which Social Security operates, the underlying industries, in terms of private insurance.

So of the in costs terms litigation, the costs in terms of getting this right, are enormous. And so if you look at it as a percentage of DOL's budget, in terms of what might be devoted to this issue, you might come to a very different cost-benefit analysis than if you look at it in terms of the \$140 billion, plus perhaps another \$140 billion in private benefits in terms of justifying the effort to do a more bottom-up, job-oriented, more detailed set of descriptors. Just a thought.

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CHAIR BARROS-BAILEY: Thanks, Mark.

And that was something we talked about when

we met with you in January, the \$140 billion a

year that is used -- spent by Social Security

billion

on disability for beneficiaries

dependents, \$128

beneficiaries.

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And if would take that we equivalent amount of money and apply it to the federal budget, in terms of the discretionary spending, that it would equate to about 14 budgets of federal agencies including NASA, including the federal courts, including the executive office, including Congress. When we started adding all of those up, it was pretty huge to see the impact of disability. And that was jus t he federal impact; it didn't include private insurance.

And so you could see that we are very passionate as a panel in terms of what we are doing, because this has huge implications to people we see on a daily basis.

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So I want to thank you again. We recognize that disability determination, and its application in terms of the O*NET, was but one of the many parts of the O*NET that your panel evaluated. And there were time and resource issues that you could not control that caused limitations and delimitations to the scope of your work.

We want to thank you for your time to come here to St. Louis and be with us here to present in terms of the panel's findings. We recognize your hard work over there. We recognize it. And you worked for over a year on it, and I know that you continue to work.

One of the things we talked about over breakfast was how long after a panel finishes its work do you present, and you said it could be years that you might be presenting on this. So we know that it continues for you, although the panel has been disbanded.

So we want to thank you for your insights. They have been tremendously

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1	helpful, and that you have provided to us as			
2	we report back to Commissioner Astrue in terms			
3	of our findings.			
4	Thank you.			
5	MS. HILTON: Thank you for inviting			
6	us.			
7	CHAIR BARROS-BAILEY: Okay. We			
8	will take a 15-minute break and resume our			
9	meeting.			
10	(Whereupon, the proceedings in the foregoing			
11	matter went off the record at 10:46			
12	a.m. and went back on the record at			
13	11:12 a.m.)			
14	CHAIR BARROS-BAILEY: Okay. Let's			
15	come back on the record, please.			
16	I think that the meeting this			
17	morning was incredibly valuable. I learned a			
18	lot from the process. One of the things that			
19	most stood out for me was that although our			
20	report is referenced in Chapter 8, when I			
21	talked to Margaret about that and its			
22	reference in the very first page, the National			

Academies of Science panel did not deliberate on our report.

As a matter of fact, they got it after the panel was disbanded. And so their recommendations at the end of the chapter have nothing to do with the content of our report. In fact, there is no contradiction between their conclusions and our report. There is no contradiction in terms of what they say in recommendation number one in terms of looking and analyzing the user needs for SSA, and the fact that that had already been done in our report.

So it was a timing issue, but the way it's reflected in Chapter 8 is it almost seems like our report having been referenced or cited in the first page, that it became a filter for the rest of the chapter when it was not the case. It was something they added later on to try to make it as complete as possible.

And so when I talked to Margaret

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about the potential of making a clarification in Chapter 8 about that, as she was willing to make a clarification about Deb's research back when she was with IOTF and the fact that it wasn't testing the O*NET D concept, it never got that far way back then, they are so far in their process with the National Academies of Science in terms of the publication of the final report that cannot make that clarification.

And so I indicated to her that that would probably be a clarification that would be included in report back the our it's Commissioner, because I think Particularly, important one. we are sensitive in this panel to how people read flat documents in context of time with what we experienced in January, some people going to subcommittee reports that don't reflect the final recommendations that appeared final report to the Commissioner.

So I wanted to -- I think we got a

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lot of information that we potentially have the need -- more than just the few minutes we have allocated for this meeting before we end or adjourn for the day to really discuss. And so I wanted to see if maybe we could talk about the implications of what we learned for a couple of things that we've talked about over the last day and a half and the agenda.

National Academy of Science roundtable, the OIS-1 study, but I think it merits a lot more discussion than we have time for. And so I would propose that we consider doing a teleconference at some point in the next few weeks to address the broader issue in terms of the takeaways and how this might affect our advice and recommendations back to SSA.

So let me open it up in terms of the implications to the couple of things that we have been talking about the last couple of days. First, the National Academy of Science roundtable, meaning not just dealing with the

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1	O*NET issues, but we had discussed yesterday
2	about the DOT issues, you know, the
3	implications of this report overall, not just
4	Chapter 8, and the implications of the Miller
5	study from 1980 in terms of the overall design
6	and recommendation issues.
7	Any thoughts about any changes, of
8	whether we need to have that, how we need to
9	have it?
10	MEMBER WILSON: Just a point of
11	are we still in a public meeting? I notice
12	our name tags are gone.
13	(Laughter.)
14	CHAIR BARROS-BAILEY: I think the
15	staff is just being a lot more efficient, but
16	I think I know who you are. So, yes, we are
17	in the public meeting.
18	Okay. Let me Sylvia, go ahead.
19	MEMBER KARMAN: Well, one thing is
20	is that it as we are anticipating the
21	National Academies of Science's final report

at the end of April, depending on when that

report -- final report comes out, we may want to adjust the timing that we were thinking about for the National Academies of Science subject matter, at least roundtable.

So that may -- that just might be something that we may want to tackle, because we did talk about that yesterday in terms of possibly having that in June. All things being equal, that might be a good idea, but then again, on the other hand, if we don't receive the report until, you know, the end of April, possibly even May, we certainly want to have enough time for all of the people we invite to would that panel, as well as ourselves, to have time to read it and really reflect on it.

So, I don't know, I am just putting that out there. That's one thing.

MEMBER WILSON: I agree. I think there is no rush. I am not opposed to having some sort of teleconference on -- to sort of process some of the things that we heard here

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1	today, but I think it's important to have the
2	report in hand, the final report, have read it
3	and digested it. You know, I saw a lot of
4	people taking lots of notes and stuff, so, you
5	know, I doubt that we will forget any of that.
6	So
7	CHAIR BARROS-BAILEY: Okay. Thank
8	you. And Allan?
9	MEMBER HUNT: I was just going to
10	point out that the final report is not going
11	to be materially different from what we've
12	seen, because obviously their process
13	prohibits that. So
14	CHAIR BARROS-BAILEY: Okay. So
15	what I'm hearing and seeing around the table
16	is that the roundtable concept is on the
17	table, very much so, moving forward. And
18	there might be some variation in terms of what
19	we had put the timeline to be within the road
20	map that we discussed yesterday.
21	Shanan?

MEMBER GIBSON: I was going to say

one thing we might consider, though, is based 1 2 on the responses here, and our understanding of how the panel operates, I think we should 3 4 probably, as part of this teleconference, discuss our expectations for what we will 5 achieve through this roundtable. 6 The 7 CHAIR BARROS-BAILEY: Four Square Document, excellent. Thank you. 8 MEMBER SCHRETLEN: Yes, that's -- I 9 10

MEMBER SCHRETLEN: Yes, that's -- I was just going to say that it calls into question in my mind, what is the purpose of the roundtable? Do we need to visit that and ask ourselves as a panel what -- what we -- what our goals -- what we want to accomplish.

CHAIR BARROS-BAILEY: Okay.

MEMBER KARMAN: I guess we should definitely consider that over the next few weeks. And then, when we meet again, we should, you know, talk -- discuss it and just, like you said, revisit the purpose, given the responses we had.

I do know that we have many more

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questions, but you're right, I mean, it may not -- it may not --

MEMBER SCHRETLEN: It raises in my mind the question of might our time be better served doing other things than a roundtable, like spending time talking about how to respond to this, or how this panel might advise SSA to respond.

MEMBER GIBSON: I would concur with that, and I would just say, though, I do want to -- that we mentioned the fact that the NAS roundtable will also be taking a secondary look at the original report, not just this report. So there does still leave that one particular issue on the table.

CHAIR BARROS-BAILEY: And I think there were a lot of questions that were more technically oriented, where there were members of the National Academies of Science, O*NET, and DOT roundtables that addressed more technical aspects beyond obviously Chapter 8, that might be beneficial in terms of the

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research process.

You know, when we look at some of the things that have been -- we have been asked to provide advice and recommendations on, in terms of data collection and field job analysts, what they found with DOT and, you know, 30 years ago why it was addressed or not addressed, some of those scientists might have some thoughts about that in this report, you know, other methods for data collection, same thing with sampling, some of the linkage issues -- that might be helpful.

MEMBER SCHRETLEN: If they would attend.

CHAIR BARROS-BAILEY: If they would attend, absolutely.

Mark?

MEMBER WILSON: Yes. I think that's the issue, and it's an excellent point. In terms of what the roundtable would be, my plans were always to recommend that it be very similar in format to the one I attended that

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Dave had organized, where we as a panel, certainly those interested would formulate a set of questions that the technical experts would be asked to address. And that wouldn't be the only thing, but that would be the start of the discussion.

And I think the area that remains unexplored, in terms of looking at various recommendations in the NAS report, were some of the issues that Shanan and I were -- you know, can you tell us about the reviews? Can you tell us who wrote this? There aren't that many experts, and so, assuming that they would come, the IO psychology panel members of NAS and some people who were involved in the original DOT report, are the obvious invites to this.

But. if they were not significant or all numbers -- or all of them were not able to attend, then I think it would potentially be something that we would have to it reexamine whether as to or not was

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valuable.

CHAIR BARROS-BAILEY: And maybe, you know, beyond the panel members, I remember reading Handel and his comment in terms of job complexity. There might be other aspects of other people who presented that might not necessarily have been on the panel who might be helpful to have as part of that process.

But so what I'm hearing is that we want to keep the NAS roundtable concept on the table, be a lot more specific in terms of what the Four Square Document would include, what's the purpose, and what we would learn from it in terms of cost-benefit, time analysis, and also timing.

Okay. Mark.

MEMBER WILSON: Well, and maybe one way to get at the issue that David raised, and also your initial comments about, you know, do we need a teleconference to discuss the process, you know, I would be very interested and would invite, as we did in terms of the

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Research Committee and reading the NAS report, what questions the various panel members have and, you know, that is kind of a moot point now, but I would certainly be interested in, well, were we able to assemble an august body of work analysis experts who are expert, what questions would you want to ask them? What issues should they address that were similar to the kinds of questions that, you know, David was asking his people?

MEMBER KARMAN: I appreciate that, because I am thinking that as we formulate the questions or purpose around what we might want to do in terms of a roundtable, and then ask ourselves, gee, you know, is there perhaps a better way for us to attain these answers to these questions than doing that? You know, perhaps there is some other method approach.

Because, you know, to the extent that we would be asking additional questions and maybe -- specifically, with regard to that

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particular report, in its final form or prepublication, is for us as a panel to be able reconcile for Social Security to the recommendation that, well, there is this modification notion on the table with regard to O*NET, and its use -- possible use for Social Security, which Social Security has looked at.

And also, the recommendations in the report itself that really get at the data quality issues, and how can we deal with that as a panel moving forward and making recommendations to Social Security about the development of its occupational information systems.

And it may be, as David pointed out, and, Mark, you also seconded it, that maybe there are better ways of getting at that.

MEMBER SCHRETLEN: And I just think it might be very useful for all of us to think about what we might do, in a sense kind of

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preemptively, or prospectively, and do we want to wait until the Department of Labor reaches out and makes some overture, or do we want to anticipate that with something and say, in case you are thinking about reaching out and making some overture --

(Laughter.)

-- here are some preliminary thoughts, before you decide whether or not you might want to form some kind of interagency.

Just to make it clear what their -- how steep the mountain is.

MEMBER KARMAN: In fact, I am kind of glad you mentioned that, because one of the things that has come to mind is that in the discussion that we had earlier, David, when you had raised the issue of the bars, for example, the behaviorally-anchored ratings, and Tom Plewes had suggested that, well, you know, these are things that could be studied, you know, perhaps a comparison of the current anchors with things that may or -- may be more

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useful to Social Security, or measures that may be more useful.

I am thinking that that may be something that could be readily integrated, that kind of a study may be a point that may be readily integrated into the OIS design study, may give us some traction on that issue early on, at least to take a look at that, and be in a position to say to the Department of Labor, or whomever, "Well, you know, we actually did take a look at that and here is what we found."

MEMBER SCHRETLEN: So we could conceivably respond to that, both rationally and empirically.

MEMBER KARMAN: Yes, sir.

CHATR BARROS-BAILEY: With something that is happening right now. mean, what kind of became evident from the discussion this morning is that we are delivering happened on what has chronologically is beyond -is happening

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imply. 1 beyond what the recommendations Ι 2 mean, they implied something that is static in time for them in August of last year. 3 4 And we are -- we are, what, about seven months beyond that, and so, you know, 5 6 they even mentioned in their -- I think it was Tom who said, "We anticipated you." And "you" 7 meaning the recommendations that we had and 8 the information that we had in our report. 9 10 I think it's kind of a timing issue. So we've talked about the 11 roundtable. We have talked about the 12 13 implications for study. We have talked about a teleconference. I am going to ask Debra 14 15 Tidwell-Peters to scan for dates for 16 teleconference for us to maybe process this particular topic further. 17 Anything else in terms of specific 18 19 to this topic that we need to discuss at this point? 20 (No response.) 21

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Okay.

22

Then, I am going to take us

1	through the rest of the agenda, so we can
2	finish on a timely basis today.
3	Okay. We have a couple of things
4	to include on the agenda, approval of minutes.
5	Elena e-mailed us all, and we got copies of
6	the minutes earlier this week. I would
7	entertain a motion to approve the minutes.
8	MEMBER GIBSON: So moved.
9	CHAIR BARROS-BAILEY: Shanan moved.
10	Do I have a second?
11	MEMBER WILSON: Second.
12	CHAIR BARROS-BAILEY: Mark seconded
13	the approval of the minutes. Is there any
14	discussion?
15	MEMBER HARDY: Yesterday I gave
16	some corrections to Debra Tidwell-Peters.
17	They were purely spelling and editing things,
18	and I believe that these minutes would be with
19	those corrections. I just wanted to put that
20	on the record.
21	CHAIR BARROS-BAILEY: Okay. So
22	there were some typographical kinds of

1 corrections. And I'm assuming what will go up on the website will be the corrected minutes. 2 Any other discussion? 3 (No response.) 4 All those in favor? 5 (Chorus of ayes.) 6 7 Okay. Opposed? (No response.) 8 That was unanimous. The minutes 9 10 have been approved. Let's open up very quickly the 11 discussion for the agenda for June. 12 If we 13 looked at our road map, there is probably a lot that is going to be going on. I know that 14 there is going to be a lot going on between 15 16 now and June in terms of the public feedback period from many different ways, probably the 17 electronic collection of the information, the 18 19 review of that information. A lot of us are going to be on the 20 road quite a bit over the next few months, and 21

so we -- that is probably going to be a big

area that we are going to be reviewing in terms of the public feedback. We are going to be having probably a lot of organizations providing us feedback in terms of the report, so I anticipate that is going to be a big area.

I think there are going to be a couple of technical reports that may be offered at that time, so we will probably have presentations around those. I'm assuming research in terms of maybe some of what we're going to be talking about with the NAS at the teleconference we may need to include in there.

Any other thoughts? Allan?

MEMBER HUNT: Labor market.

CHAIR BARROS-BAILEY: Labor market, yes, absolutely, the roundtable. That is going to be a big one that we will need to talk about in terms of consideration for the agenda.

Deborah?

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MEMBER LECHNER: I think we probably would have a report -- some sort of report on the recommendations for the job training and certification of job analysts -- CHAIR BARROS-BAILEY: Yes.

MEMBER LECHNER: -- at that point.

CHAIR BARROS-BAILEY: There is probably going to be quite a bit happening in the next few months on that as well, yes.

Tom?

MEMBER HARDY: You are looking at possibly having a draft content model by May from the workgroup? Are we going to be looking at that, do you think, or will that still not be quite ready?

MEMBER KARMAN: Well, it certainly is on track for us to be working with the workgroup to finish our considerations around the person-side elements for the content model. So I am not sure whether or not we will have something to share with the entire panel in June, but that's where we're headed,

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1	anyway, as far as drafts are concerned.
2	CHAIR BARROS-BAILEY: I think from
3	an administrative standpoint I got a lot out
4	of the training, the professional development,
5	and I want to thank you again for doing that,
6	Mark and Shanan. And so we will be looking at
7	and might also kind of scan for other areas
8	that people would really want to see
9	additional training about.
10	I know we talked about the legal
11	issues, in terms of defensibility, and, you
12	know, is June a good timing, is there a lot
13	going on in June, might we do it another time.
14	So we will probably scan for that as well in
15	terms of professional development.
16	Okay. Any other considerations for
17	the agenda for June?
18	(No response.)
19	Hearing none, I would entertain a
20	motion to adjourn our second annual quarterly
21	meeting for the OIDAP.

MEMBER HARDY: I make a motion to

1	adjourn.
2	CHAIR BARROS-BAILEY: So moved by
3	Tom. Seconded by Allan?
4	MEMBER HUNT: Yes, I second the
	motion.
5	
6	CHAIR BARROS-BAILEY: All those in
7	favor?
8	(Chorus of ayes.)
9	I'll note that was unanimous, and
10	we are adjourned.
11	Thank you.
12	(Whereupon, at 11:34 a.m., the proceedings in
13	the foregoing matter were
14	adjourned.)
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TAB C

Appendix C: Timeline of NAS O*NET Panel and OIDAP Activities

(February 2009 through May 2010)

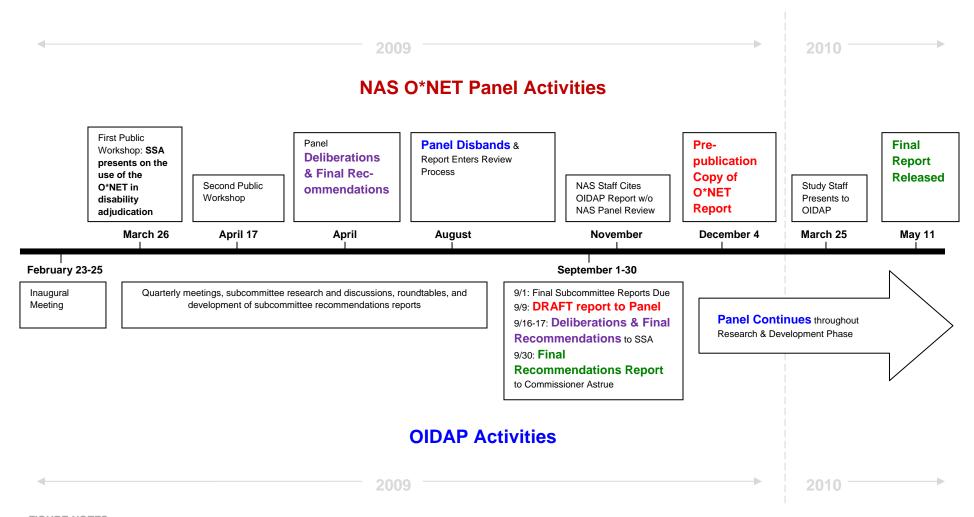


FIGURE NOTES

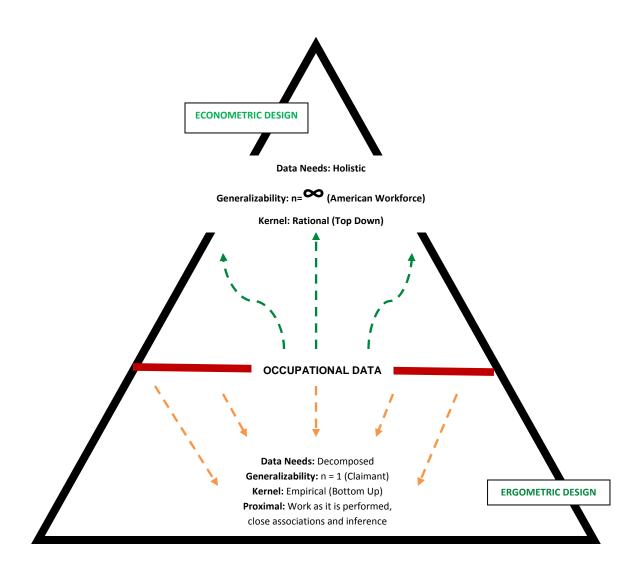
NAS timeline from panel's final recommendations to release of pre-publication and then final report: 13 months (April 2009 → May 2010)

OIDAP timeline between subcommittee recommendations, report draft, deliberations, final recommendations, and final report: 1 month (September 1 -30, 2009)

- ✓ Different processes, different timelines
- √ NAS recommendations made in absence of OIDAP research and recommendations
- ✓ OIDAP recommendations complement and refine NAS recommendations on SSA occupational information needs and the usefulness of O*NET in disability adjudication

TAB D

ECONOMETRIC V. ERGOMETRIC WORK ANALYSIS DESIGNS



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Table 1

Comparison of Ergometric and Econometric Approaches to Work Analysis

Element	Ergometric	Econometric
- a		
Definition	Measurement of work as	Measurement of work as a
	performed by the worker	labor market category
Primary Scales of Measurement	Ordinal, Interval & Ratio	Nominal
Measurement Approach	Decomposed	Holistic
Measurement Precision	Moderate to High	Low
Unit of Analysis	Position & Job	Large Aggregations of Jobs
Primary Purpose/Application	Human Resources	Policy Development
Organizational Level	The Enterprise	The Economy
Primary Threats to Validity	Internal & SCV	External & Construct
Level of Legal Scrutiny	Moderate to High	Low
Sample Systems	Task Inventory & PAQ	O*NET & SOC
Primary Discipline	Psychology	Economics

Note. SCV = statistical conclusion validity; PAQ = position analysis questionnaire; O*NET = Occupational Network; SOC = Standard Occupational Classification

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Anyone requiring materials in alternative formats or further information regarding this document or the Occupational Information Development Advisory Panel should contact the Panel staff. Records are maintained of all Panel proceedings in accordance with the Federal Advisory Committee Act and are available for public inspection at the Panel office, by appointment.



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