Occupational Information Network

Organization: Employment and Training Administration, U.S. Department of Labor. "The Employment and Training Administration (ETA) administers federal government job training and worker dislocation programs, federal grants to states for public employment service programs, and unemployment insurance benefits. These services are primarily provided through state and local workforce development systems."[1]

The Occupational Information Network (O*NET) is operated on behalf of ETA under a grant to the National Center for O*NET Development, North Carolina Department of Commerce. The Center in turn collaborates in O*NET operations with several public and private-sector organizations, including the Research Triangle Institute, the Human Resources Research Organization, North Carolina State University, MCNC, and Maher & Maher.[2]

Purpose and Uses: The O*NET program provides comprehensive occupational descriptions and characteristics for use by job seekers, workforce development offices, human resources professionals, students, researchers, and others. O*NET aims to be a resource that helps individuals explore career options, provides a foundation of information on occupational characteristics and requirements, and tracks emerging occupational titles, tasks, and tools and technology used in performing work.

Data Elements Relevant to Postsecondary Education and Workforce Development: For each of almost 1,000 occupations (organized by an O*NET-SOC taxonomy), O*NET provides 277 descriptors, organized into six groups:

- Worker characteristics (abilities, occupational interests, work values, and work styles)
- Worker requirements (skills, knowledge, and education)
- Experience requirements (entry-level skills and licensing requirements)
- Occupational requirements (work activities and context)
- Occupation-specific information (tasks and tools)
- Workforce characteristics (current and projected occupational workforce)[3]—this is provided through links to other data sources

History and Status: O*NET's predecessor was the Dictionary of Occupational Titles (DOT), which first appeared in 1939. The DOT's purpose was to help state employment offices classify and match job seekers with jobs. The 1939 volume provided concise definitions of about 17,500 jobs, organized into 550 occupational clusters and classified as skilled, semiskilled, or unskilled.

With the publication of the fourth edition of the DOT in 1977, the U.S. Employment Service commissioned a review of the DOT by the National Research Council. Published in 1980, the Council's report found numerous problems regarding coverage and accuracy. In 1990, following the report

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[1] ETA website, http://www.doleta.gov/etainfo/eta_default.cfm.

[2] More information about O*NET partners can be found at http://www.onetcenter.org/about.html.

[3] For a full description of the O*NET Content Model, see http://www.onetcenter.org/content.html.

recommendations, ETA created an advisory panel on the revision of the DOT. The final version of the DOT, with over 12,000 occupations, was published in 1991; much of its information was collected in the 1970s. The panel's report, issued in 1993, recommended developing a database of occupational information. ETA then sponsored a research project that led to the development of the first operational version of O*NET in 1998. "O*NET 98" covered 1,122 occupations.[4] The O*NET classification system is based on the Standard Occupational Classification (SOC) system, with authorization from OMB to add additional detail (an 8-digit O*NET code embedded within the 6-digit SOC schema).

O*NET provides occupation and skills information mandated by the Workforce Investment Act and its successor Workforce Innovation and Opportunities Act. Most broadly, the law requires the Secretary of Labor to oversee the "development, maintenance, and continuous improvement of a workforce and labor market information system," including "Skill trends by occupation and industry."[5]

The O*NET Data Collection Program has clearance from OMB through May 2015.

Methodology: According to ETA:

> The O*NET Program sampling approaches are designed to create and update the O*NET database in a highly cost-efficient and timely manner while maximizing the reliability of the information in it. . . . Approximately 75% of occupations are completed by the Establishment Method. The method uses a stratified two-stage design. At the first stage, a sample of businesses is selected from a national database of more than 15 million establishments provided by Dun & Bradstreet (D&B) . . . . The sample is selected with probability proportional to the expected number of employed workers in the specific occupations being surveyed. Distribution of occupations by industry is based on data from the most current Occupational Employment Statistics survey for the 6 national Census regions of the US. At the second stage, a sample of workers is selected in the occupations within the sampled businesses. . . .

> The OE [Occupation Expert] Method is considered for use when the Establishment Method would likely be problematic because of occupations with very low rates of employment, new and emerging occupations lacking industry employment data, or occupations whose incumbents are in remote locations that are difficult to access. The OE Method can be used only if the occupation is well represented by one or more professional or trade associations that are willing and able to identify experts in the target occupation. For this method, stratified samples of experts are selected from lists of potential respondents. These potential experts are questioned to determine whether they meet the specified criteria to serve as an occupation expert for their respective occupation. Approximately 25% of the occupations are completed by the OE Method.[6]

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[4] Committee on National Statistics, National Research Council, "A Database for a Changing Economy: Review of the Occupational Information Network (O*NET)," Washington, DC: 2010, pp. 5, 11-15 and ETA, "O*NET Data Collection Program, Part A: Justification," April 10, 2012, pp. 4-5.
[5] ETA, op.cit., p. 16-23.
[6] Ibid., p. 9.

Data Products and Services: Access to the O*NET database is free to the public through O*NET OnLine, a web-based application. The database and other files may also be downloaded in several formats. There also is a full suite of O*NET web services and application programming interfaces. The O*NET program also hosts several other online tools, including O*NET Career Exploration Tools, My Next Move, and Mi Proximo Paso. . O*NET information is also integrated into other Federal online tools, including CareerOneStop, Occupational Information on CareerInfoNet, and mySkills myFuture. Many state and local workforce entities, educational institutions, and private sector sites link directly to an O*NET online tool or utilize O*NET web services

Annual Cost: The estimated annual cost to the government for the O*NET Data Collection Program from 2012 to 2015 is approximately $6.0 million.[7]

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[7] *Ibid.*, p. 68.