



User's Guide O*NET™98 Viewer

User's Guide

O*NET[™] 98 Viewer



Version 1.0 for Microsoft® Windows™

U.S. Government Printing Office Washington, D.C. 1998

Copyright Information

The O*NET 98 Viewer Version 1.0 described in this document was developed under contract to the U.S. Department of Labor, Employment and Training Administration by Trefoil Corporation, Orono, Maine, in cooperation with Aguirre International and the National O*NET Consortium.

Portions of the operating platform/operating system software described in this document are Copyright [©] Microsoft Corporation. All rights reserved.

Information in this document is subject to change without notice. O*NET is trademarked. For general guidance on its use, refer to "Special Notice for Users" on page v. When using O*NETTM 98 in the development of other products, software or systems applications, refer to the "O*NETTM 98 User Agreement" on pages vi-vii for Terms and Conditions of Use.

U.S. Government Printing Office

ISBN 0-16-049746-9

0 9 8 7 6 5 4 3 2 1

Printed in the United States of America

O*NET™ 98 Special Notice for Users

Information in O*NET 98 is based largely on data supplied by occupational analysts from sources such as the *Dictionary of Occupational Titles* (DOT). O*NET 98 provides valid and reliable occupational information that may be useful for a variety of purposes, such as career counseling, development of job training programs, skill standards and labor market information. It should be noted that O*NET 98 occupational information is composite information from many jobs and therefore not intended to describe a particular job.

Purchasers of O*NET 98 may use the products freely for their own personal use. If use includes developing other products, software or system applications using O*NET 98 products, users are subject to terms and conditions described in the O*NET[™] 98 User Agreement (see pages vi-vii) and should register their use with the National O*NET Consortium at http://www.onetcenter.org/ or National O*NET Consortium, North Carolina Employment Security Commission, P.O. Box 27625, Raleigh, NC 27611.

Recipients of federal assistance from the U.S. Department of Labor need to ensure that individuals with disabilities are afforded an equal opportunity to use services based on O*NET 98. For further discussion of these obligations see Equal Opportunity Guidance Letter No. 4 (May 18, 1998), reproduced in its entirety in the O*NET 98 Viewer (More Information section), Viewer *User's Guide* and *Data Dictionary*.

O*NET™ 98 User Agreement

O*NET 98 is a Department of Labor, Employment and Training Administration (DOL/ETA) sponsored project. O*NET is trademarked. The purpose of this Agreement is to establish terms and conditions for O*NET 98 users intending to develop other products, software or systems applications using O*NET 98 products.

Terms and Conditions of Use

No license is required to use O*NET 98 products. Users intending to develop other products, software or systems applications using O*NET 98 products should register with the National O*NET Consortium at http://www.onetcenter.org/ or National O*NET Consortium, North Carolina Employment Security Commission, P.O. Box 27625, Raleigh, NC 27611.

The use of O*NET 98 products in the development of other products, software or systems applications is subject to the following conditions:

1. Since O*NET is trademarked, users must acknowledge the use of O*NET 98 in and on their products. The trademark symbol must be properly displayed when referring to O*NET.

When using the O*NET 98 name, users must use "O*NET 98" as an adjective, not as a noun or a verb, followed by the proper generic product name. For example: "...with O*NET 98 data," "...formulated from O*NET 98 data," or "...includes information from the O*NET 98 database," not "...includes O*NET 98." In addition, the O*NET 98 name must not appear in the possessive or plural form.

- 2. The version number of the source O*NET 98 database must be clearly stated in and on user products.
- 3. Any modifications made to the O*NET data must be clearly specified along with a description of the modifications. Notice of modifications must be prominently displayed in and on user products. Users should be aware that any modification of O*NET 98 data may compromise its validity and reliability for its intended uses.

4. The O*NET 98 Viewer (© 1998 DOL/ETA) may be copied and redistributed freely provided that (1) no modifications are made to any files comprising the Viewer, (2) this Agreement accompanies the files, and (3) all files comprising the Viewer are distributed together and installed as a package on the user's computer.

The following independent files included in the Viewer are Copyright [©] Microsoft Corporation, and may not be distributed separately from the Viewer:

MSARN200.EXE, MSAFIN.DLL, MSAIN200.DLL, MSAJU200.DLL, MSAOLE20.DLL, SOA200.DLL, MSJETINT.DLL, DAO2016.DLL, MSABC200.DLL, MSAEXP20.DLL, MSAJT200.DLL, MSJETERR.DLL.

- 5. Users must not use the O*NET or DOT name as a part of a product name, company name, electronic addresses or in any other manner that may imply that DOL/ETA produced, endorses or supports a user's product.
- 6. Recipients of federal assistance from the U.S. Department of Labor need to ensure that individuals with disabilities are afforded an equal opportunity to use services based on O*NET 98. For further discussion of these obligations see Equal Opportunity Guidance Letter No. 4 (May 18, 1998), reproduced in its entirety in the O*NET 98 Viewer (More Information section), Viewer *User's Guide* and *Data Dictionary*.



O*NETTM 98

(Trademarked logo)

(Use in Text)

Proper Trademark Citation

O*NET[™] 98 is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

An Important Note for Users

The O*NET 98 Viewer was developed for use by the general public. It is based on a prototype version of what will ultimately become the "complete" O*NET database, currently scheduled for release as O*NET 2001.

The database used in O*NET 98 is based largely on data supplied by occupational analysts from sources such as the *Dictionary of Occupational Titles* (DOT). To develop data for this database, analysts evaluated and refined existing occupational data, then applied these data to the O*NET Content Model.

An extensive effort is currently underway to collect new and expanded data for all O*NET occupations from job incumbents and supervisors. These new data will be available in the future as part of O*NET 2001, and will complete the entire O*NET Content Model.

The success and usefulness of the entire O*NET system ultimately depend upon the quantity, quality and representativeness of data collected. The speedy, voluntary participation of employers and employees across the country in O*NET data collection efforts will help ensure that all data contained in this prototype version are updated and/or replaced before the release of the complete O*NET 2001.

Detailed technical reports describing the scientific basis for all data decisions made regarding O*NET are available from the National O*NET Consortium. Please see page one of this *User's Guide* for contact information.

Acknowledgments

O*NET 98 is a project sponsored by the U.S. Department of Labor, Employment and Training Administration, Office of Policy and Research, under the direction of Donna Dye, O*NET Project Director.

The Employment and Training Administration wishes to acknowledge the following organizations for their contributions to the current version of O*NET, the Occupational Information Network:

- Aguirre International
- American Institutes for Research, and its subcontractors: Personnel Decisions Research Institute; Management Research Institute; Jenneret & Associates; Westat; Policy Studies Associates
- DOL Assessment Research and Development Field Centers in the states of California; Michigan; New York; North Carolina (and its contractors: Human Resources Research Organization and University of Illinois at Urbana-Champaign); and Utah
- DOL Occupational Analysis Field Centers in the states of Massachusetts, Michigan, Missouri, North Carolina, and Utah
- National O*NET Consortium, comprised of the North Carolina Employment Security Commission; Ohio Bureau of Employment Services; Center for Employment Security Education and Research; and the Employment and Training Administration
- · Trefoil Corporation

Equal Opportunity Information

The following Equal Opportunity Guidance Letter provides general information and guidance on the use of computer-based services by individuals with disabilities. If applicable, usage of the O*NET software should comply with these guidelines to ensure that individuals with disabilities are afforded an equal opportunity to use the software.

U.S. Department of Labor Civil Rights Center



EQUAL OPPORTUNITY GUIDANCE LETTER NO. 4

MAY 18, 1998

TO: GOVERNORS, STATE JTPA LIAISONS, STATE WORKER ADJUST-MENT LIAISONS, STATE EMPLOYMENT SECURITY AGENCIES (SESA), ONE-STOP CAREER CENTER SYSTEM LEADS, SESA EQUAL OPPORTUNITY (EO) OFFICERS

FROM: ANNABELLE T. LOCKHART

Director

Civil Rights Center

SUBJECT:

Making America's Job Bank/America's Talent Bank Available to and Usable by Individuals with Disabilities

1. **Purpose.** To provide guidance on States' responsibilities to make America's Job Bank/America's Talent Bank (AJB/ATB) available to and usable by individuals with disabilities.

- 2. References. TEIN 28-96 (May 1, 1997): Study On Certification Chartering Criteria For One-Stop Career Centers; TEIN 27-96 (April 28, 1997): One-Stop Disability Initiative; TEIN 21-96 (March 17, 1997): Joint Issuance by the Assistant Secretary for Employment and Training and the Assistant Secretary for Special Education and Rehabilitation Services.
- 3. **Background.** Two statutes that prohibit discrimination on the basis of disability by recipients of Federal financial assistance for labor and workforce programs are section 504 of the Rehabilitation Act of 1973, as amended, and section 167 of the Job Training Partnership Act, as amended. The Department of Labor's regulations implementing Section 504 and Section 167, title 29 CFR parts 32 and 34 respectively, prescribe several recipient obligations to ensure that its services, including America's Job/Talent Bank workstations that are made available to the general public, are, to the maximum extent possible, available to and usable by individuals with disabilities. These obligations include, but are not limited to: (1) ensuring physical accessibility; and (2) providing reasonable accommodation to individuals with disabilities. (See Subpart C of part 32). The Americans with Disabilities Act of 1990 (ADA) imposes similar obligations. See section 4. for a discussion of the ADA and its applicability to State and local governments.
- (1) Physical accessibility to programs and activities. Title 29 CFR 32.28 requires that "each facility or part of a facility constructed by, on behalf of, or for the use of a recipient, shall be designed and constructed in such manner that the facility or part of the facility is readily accessible to and usable by" qualified individuals with disabilities. Section 32.28 further provides that the standards to be used are those most recently issued by the General Service Administration (GSA), unless alternative standards provide greater accessibility. The most recent standards issued by GSA are the Uniform Federal Accessibility Standards (UFAS). (See 41 CFR Subpart 101-19.6.) These guidelines should be used unless alternative guidelines provide greater accessibility. Alternative standards include the Americans with Disabilities Act Accessibility Guidelines (ADAAG). (See 28 CFR part 36.) Additionally, States should be aware that, if state guidelines provide for greater accessibility, those standards should be used.

The term "facilities" is not synonymous with the term "buildings." It has a broader meaning and includes such things as automated teller machines (ATMs) and roadside emergency call boxes. AJB/ATB workstations must be in compliance with accessibility standards. In most instances, such as in the case of ATMs, there is a specific UFAS or ADAAG standard. In others, such as with roadside emergency call boxes and AJB/ATB-type workstations, there is no specific accessibility

standard. In the absence of a specific standard, a recipient should rely upon the general accessible design criteria contained in ADAAG and UFAS. Both ADAAG and UFAS provide guidance to recipients concerning design considerations for accessible routes, clear space, reach ranges, and operating mechanisms.

- (2) Reasonable accommodation. As a separate and additional obligation, recipients must accommodate the disabilities of particular individuals in response to the specific limitations of their disabilities, unless the recipient can show that the provision of an accommodation would constitute an undue burden. (See 29 CFR 32.13 for a discussion of reasonable accommodation and undue burden.) Accommodations can include auxiliary aids as required by 29 CFR 32.4 (b) (7) and 29 CFR 34.6 (b) as well as staff-assisted services.
- Relationship to ADA. The Americans with Disabilities Act of 1990 (ADA) extends the prohibition of discrimination on the basis of disability to covered entities regardless of whether they receive Federal financial assistance. Title I of the ADA, which is enforced by the Equal Employment Opportunity Commission, applies to all employers, employment agencies, labor organizations and joint labor-management committees (see 29 CFR part 1630). Title II, which is enforced by the Department of Justice (DOJ) and in some circumstances DOL, applies to "public entities" (e.g., any State or local government or any department, agency, special purpose district, or other instrumentality of a State or States or local government (see 28 CFR part 35). Title II is patterned after Section 504 of the Rehabilitation Act. Title III of the ADA, also enforced by DOJ, applies to public accommodations and commercial facilities (see 28 CFR part 36). To the extent that recipients of Federal financial assistance for labor and workforce programs are covered entities (e.g., employers, employment agencies, State and local governments and public accommodations) they are also covered by the ADA and its implementing regulations.
- 5. **Policy.** States must ensure that their obligation to provide programmatic and physical access to AJB/ATB is met. This includes ensuring that AJB/ATB workstations meet UFAS standards, unless an alternate standard provides greater accessibility. Further, States must provide accommodations, including auxiliary aids and staff-assisted services necessary to ensure equal opportunity for qualified individuals with disabilities. The Department of Labor supports and encourages States to find the methods and means of ensuring that job-seekers with disabilities and business individuals with disabilities can access the employment related information and use the new Internet tools for labor exchange.

- 6. Action. Recipients should review the location and placement of AJB/ATB workstations available to the public to ensure they are accessible to and usable by individuals with disabilities. Further, recipients should develop and implement strategies to accommodate the specific limitations of individuals with disabilities, including auxiliary aids and staff-assisted services. The determination as to the appropriate accommodation should be made in consultation with the individual with the disability, and may include other interested individuals or groups. Resources listed in 7. can assist the recipient in this regard. Finally, the Department recommends that a three-way partnership of the USDOL, State rehabilitation agencies and local disability advocacy agencies can develop ways to ensure access to service for individuals with disabilities. These activities should be undertaken with the assistance of the SESA Equal Opportunity Officer.
- 7. **Resources.** ETA's affirmative efforts to ensure access to the AJB/ATB system for individuals with disabilities include partnering with the National Federation of the Blind to develop a voice-based system to access AJB and to conduct regional accessibility conferences. In addition, ETA established the One-Stop Disability Initiative in recognition of the fact that the One-Stop Career Center System presents unique challenges as well as opportunities to provide improved services to individuals with disabilities.

A One-Stop Disability Initiative web site, found at www.ttrc.doleta.gov/onestop/dslstp.htm, is a good source for information on this issue. It includes the full text of the publication Technology and Serving Individuals with Special Needs presented by the Electronic One-Stop (EOS) Steering Committee. That publication includes a list of EOS Usability Principles which offers a general framework for the "look and feel" of EOS systems.

The One-Stop Disability Initiative web site also provides a link to information on disability issues in general found on the DOL Disability Initiative website.

http://www.doleta.gov/access/

There are several other Internet web sites which are recommended for those in need of additional information, including:

The Civil Rights Center (CRC):

http://www.dol.gov/dol/oasam/public/regs/ main.htm

CRC is the agency within DOL that enforces section 504, section 167 and, under some circumstances, Title II of the ADA. The site includes laws, regulations and technical assistance related to disability.

The Department of Justice (DOJ) ADA home page:

http://www.usdoj.gov/crt/ada/adahom1.htm

DOJ enforces Titles II and III of the ADA. The site includes laws, regulations and technical assistance related to those two sections as well as links to other disability-related sites.

The Equal Employment Opportunity Commission (EEOC):

http://www.eeoc.gov/

The EEOC enforces Title I of the ADA and has information related to that Title.

The Job Accommodation Network (JAN):

http://janweb.icdi.wvu.edu/

JAN is a federally-funded program to advise employers as well as employees with disabilities on accommodations that are available to assist the worker in the performance of his or her job. JAN maintains a database of thousands of accommodations that have been provided to callers in the past.

ADA links:

http://www.public.iastate.edu/~sbilling/ada.html

The Iowa State University has compiled links to over 100 different websites of value to individuals with disabilities. Information on the ADA, products and services, communications, specific disabilities, legal resources and more are included on this extensive page.

The President's Committee on Employment of People with Disabilities (PCEPD):

http://www.pcepd.gov/

PCEPD is a resource office within the Federal government focusing on disability issues and workers with disabilities. The PCEPD provides information and advice to both employers and individuals with disabilities, setting up and participating in a variety of other conferences and activities throughout the year.

8. **Inquiries.** Questions should be addressed to Everette West of CRC by e-mail at the following address: west-everette@dol.gov.

Contents

	. 1V
O*NET™ 98 Special Notice for Users	v
O*NET™ 98 User Agreement	. vi
An Important Note for Users	viii
Acknowledgments	. ix
Equal Opportunity Information	X
Contact Information	1
SECTION I. INTRODUCTION	
Chapter One: Welcome to O*NET	. 5
Welcome	5
The Content Model	5
Using the O*NET 98 Viewer	5
The Search Menu	6
The Activity Menu	6
Chapter Two: Getting Started	. 9
Installation	9
Hardware Requirements	9
Software Requirements	9
Software Requirements	
Installation from Floppy Disks	
<u>-</u>	. 10
Installation from Floppy Disks	. 10 . 10
Installation from Floppy Disks To Install from the CD-ROM Disc	. 10 . 10 . 10
Installation from Floppy Disks	. 10 . 10 . 10
Installation from Floppy Disks To Install from the CD-ROM Disc To Run the Viewer To Uninstall	. 10 . 10 . 10 . 11
Installation from Floppy Disks To Install from the CD-ROM Disc To Run the Viewer To Uninstall Choosing a User Level	. 10 . 10 . 10 . 11 . 11
Installation from Floppy Disks To Install from the CD-ROM Disc To Run the Viewer To Uninstall Choosing a User Level What the User Levels Mean	. 10 . 10 . 10 . 11 . 11 . 12
Installation from Floppy Disks To Install from the CD-ROM Disc To Run the Viewer To Uninstall Choosing a User Level What the User Levels Mean Additional Features for Expert Users	. 10 . 10 . 10 . 11 . 11 . 12 . 13
Installation from Floppy Disks To Install from the CD-ROM Disc To Run the Viewer To Uninstall Choosing a User Level What the User Levels Mean Additional Features for Expert Users Display Setting Button	. 10 . 10 . 10 . 11 . 12 . 13 . 13
Installation from Floppy Disks To Install from the CD-ROM Disc To Run the Viewer To Uninstall Choosing a User Level What the User Levels Mean Additional Features for Expert Users Display Setting Button Configuring the Viewer's Appearance on Your Monitor	. 10 . 10 . 11 . 11 . 12 . 13 . 13

Table of Contents

Expert Level Settings Options	14
Settings	14
Parameters	
Descriptor Value Presentation	15
Understanding Scales	
Navigating in the O*NET 98 Viewer	16
Keystroke Shortcuts	
Moving Through Online Help	
Other Hints	
Accessibility Options and Built-in Aids	
Windows Accessibility Options	
Built-in Accessibility Aids	18
SECTION II. SEARCHING FOR O*NET OCCUPATIONS	
	0.0
CHAPTER THREE: THE SEARCH MENU	
Using the Search Menu	
Importance of the Search Menu	
Returning to the Search Menu	2.4
e e e e e e e e e e e e e e e e e e e	= 1
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES	25
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25 25
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25 25 25
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25 25 25
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25 25 25 26 26
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25 25 25 26 26 29
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25 25 25 26 26 29
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25 25 25 26 26 29 29
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25 25 26 26 29 29 31
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25 25 26 26 29 29 31
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25 25 25 26 26 29 29 31
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25 25 26 26 29 29 31 31
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25 25 25 26 26 29 29 31 31 32
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25 25 26 26 29 29 31 31 32 35
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25 25 25 26 29 29 31 31 32 35 35
CHAPTER FOUR: SEARCHING BY O*NET TITLES OR CODES Overview	25 25 26 26 29 31 31 32 35 35

Chapter Eight: Searching by Describing Skills	39
Overview	39
Building a Skills Profile	39
Skills Search	39
Overview of Skill Searching	40
Performing a Skills Search	40
Step 1— Choose Skill Areas	41
Step 2 — Choose Skills	42
Step 3 — Review Your Skill List	43
Step 4 — Preview and Print Your Skills Search Report	44
Importance of Skill Scale	46
Level of Skill Required Scale	46
Changing the Skills in Your List	47
Changing the Level of Skill Required	47
Step 5 — Using Your Findings	48
CHAPTER NINE: SEARCHING BY LOOKING AT LISTS AND REPORTS	49
Overview	49
Reports	50
More Information	51
Section III. Exploring Occupations	
CHAPTER TEN: THE ACTIVITY MENU	
CHAPTER ELEVEN: VIEWING AN OCCUPATIONAL PROFILE	57
How to Use Profile	
Related Occupations	
nerated occupations	00
CHAPTER TWELVE: LOOKING AT DETAILS FOR AN OCCUPATION	61
Overview of Details for Occupation	61
How to Navigate to Details for Occupation	
Viewing Details	
Additional Useful Reports	
•	
Chapter Thirteen: View Crosswalks	67
Viewing Crosswalks from the Activity Menu	67

SECTION IV. IMPORTANT BACKGROUND INFORMATION O*NET 98 Products 72 Job Zone Definitions 76 SECTION V. REFERENCE INFORMATION FOR EXPERT USERS CHAPTER SEVENTEEN: DATA DICTIONARY 101 Chapter Eighteen: Occupational Units & Analyst Ratings, 105

Chapter Twenty: Profile Parameters	119
Descriptor Selection	119
Max Number of Ability Descriptors	119
Max Number of Knowledge/Skill Descriptors	119
Max Number of Generalized Work Activity Descriptors	120
Lower Limit for Descriptor Selection	120
Chapter Twenty-One: Skill Search Parameters	121
Select Occupation with Mean Importance >= (greater than or equal to)	121
Cutoff Value for "Average Level" of Skill Match	122
Cutoff Value for "High Level" of Skill Match	122
Chapter Twenty-Two: Keyboard Shortcuts	123
General Shortcuts	123
Shortcuts for the Preview Report Screen	123
Index	125

The O*NET 98 Viewer

This product was developed under contract to the U.S. Department of Labor Employment and Training Administration by Trefoil Corporation, Orono, Maine in cooperation with Aguirre International and the National O*NET Consortium

CONTACT INFORMATION:

SOFTWARE-RELATED TECHNICAL SUPPORT

Trefoil Corporation P.O. Box 127 Orono, ME 04473 http://www.trefoil.com/

CONTENT-RELATED QUESTIONS and DETAILED O*NET TECHNICAL REPORTS

National O*NET Consortium O*NET Support Group National Center of O*NET Development http://www.onetcenter.org/

GENERAL O*NET PROJECT INFORMATION

U.S. Department of Labor Employment and Training Administration http://www.doleta.gov/programs/onet/

Section I. Introduction

Chapter One: Welcome to O*NET

Welcome

Welcome to the O*NET 98 Viewer, your window on the modern world of work. The Viewer was created for the general public — to give employers, job seekers, career counselors, government workers, occupational analysts, researchers, and students computerized access to the O*NET Database of occupational information.

Information in O*NET is available for over 1,100 occupations. Each occupation is classified by a unique O*NET title and code and is carefully cross-referenced to occupations in eight other classification systems.

The Content Model

The framework that organizes O*NET data is a skills-based structure called the Content Model. The Content Model classifies data into six domains, "windows" that look into all aspects of the workplace — from descriptions of the worker to requirements of the work.

Using the O*NET 98 Viewer

The O*NET 98 Viewer is a sophisticated piece of software that integrates data from a variety of sources, thus vastly simplifying career exploration and occupational research. You will discover that many different paths can be used to find the information you need. In fact, the very structure of the Viewer tends to offer you additional insights into your queries.

Using the O*NET 98 Viewer should be easy for anyone who is comfortable working in the Windows environment and who has some knowledge of the vocabulary of occupational research. However, it does help to understand what you can expect to achieve with the Viewer before you launch your search. We'll begin with a brief overview of the Search Menu and the Activity Menu, and then go on, chapter by chapter, to explain all of these options in detail. At the end of the *User's Guide*, you'll find detailed reference material for expert users.

The Search Menu

Typically, an information-finding session will begin with the Search Menu. Using the Search Menu, you can do the following:

- Search for occupations by Titles/Codes or Keyword
- Use **Crosswalks** to find O*NET occupations when you know their titles or codes in another classification system
- · Identify suitable occupations by building a list of Skills

The Activity Menu

Once you have selected an occupation, its O*NET title and code appear in the selection box, and the **Activity** Menu automatically opens. The Activity Menu is the second principal menu of the O*NET 98 Viewer. From this menu, you can:

- View a **Profile**, or snapshot, of the occupation. You'll see important occupation characteristics and you can print out a complete Profile report which includes **Related Occupations**
- Access **Details** for all O*NET information available on your selected occupation
- View Crosswalks to see how the O*NET occupational titles and codes are related to titles and codes in other classification systems
- Explore the **Content Model** to learn more about the development and background of O*NET's common language of occupational information

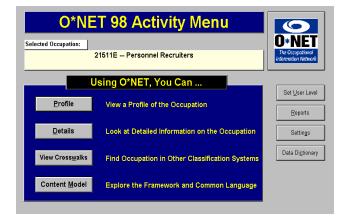
• Consult the **Data Dictionary** for expert's information on occupational descriptors, their scales, and values

Printed **Reports** are available for most information provided in the Viewer.

Online Help is available at any time. Press the Help button to learn more about the screen you are using.



The Search Menu



 $The \ Activity \ Menu$

Chapter Two: Getting Started

- Installation
- · Choosing a User Level
- Deciding How Your Screens Will Display
- Navigating in the Viewer

This chapter helps you set up O*NET on your computer, establish the way the O*NET 98 Viewer looks on your computer screen, decide how much online guidance you wish the Viewer to offer, and specify how much access you need to special features. We also present some hints on moving through the Viewer using either a keyboard or a mouse.

Installation

Hardware Requirements

The O*NET 98 Viewer requires a 486DX or Pentium-level Personal Computer, with 16 MB RAM and 20 MB of free hard disk space for installation. The Viewer can be installed to run from CD-ROM to save hard disk space. This option requires only 3MB of hard disk space. The viewer will run from CD-ROM in all versions of Windows except NT.

Software Requirements

The O*NET 98 Viewer requires Windows 3.1, Win 3.11, Windows for Workgroups, Windows 95, Windows 98, or Windows NT.

Installation instructions for Windows 3.1 apply also to Windows 3.11 and Windows for Workgroups. Instructions for Windows 95 apply also to Windows 98/NT.

Installation from Floppy Disks

Windows 3.1, Windows 3.11 or Windows for Workgroups

- Insert Disk 1 into floppy drive A:
- From the Program Manager dialog box, click Run... and type
 A:\setup.exe

The setup program will create an O*NET 98 Viewer directory, icons, and program group for you as it installs. If you wish to install files in a different directory, type the path and directory name when prompted. Setup notifies you when installation is complete.

Windows 95, Windows 98 or Windows NT

 From START, run A:\setup.exe... and follow the prompts, inserting Disk 1 when you are asked.

You will be asked to accept a directory and a program group. Click OK or type in a different directory path or group, as you wish. By default, an O*NET icon will be created for your desktop. (You can say no to this option.) Setup notifies you when installation is complete.

To Install from the CD-ROM Disc

In Windows 95/98/NT, if the Autorun feature is enabled for your CD-ROM drive, setup will start automatically. Otherwise, navigate to your CD-ROM drive and run **o_setup.exe**. You will be guided through the installation process and given a chance to accept a directory and program group. An icon to run the Viewer will be created for your desktop on Win 95 systems.

To Run the Viewer

- In Windows 3.x, go to the O*NET Program Group and double-click the icon.
- In Windows 95/98/NT, double-click the desktop icon, or go to Start, Programs, O*NET Viewer.

To Uninstall

Windows 3.x or Windows for Workgroups

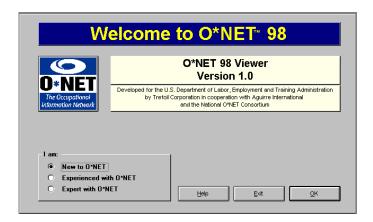
From Program Manager, open the O*NET program group. Double-click the Uninstall icon to uninstall the O*NET 98 Viewer.

All the files in the O*NET program group and all the associated icons will be deleted.

Windows 95, 98 or NT

From Start, choose Settings, Control Panel, Add/Remove Programs. You will see a scroll-down box of programs that can be removed, and you will find O*NET listed as "O*NET 98 Viewer." Highlight it.

Click "Add/Remove." This button is a toggle. Since O*NET is currently installed, it will be removed, along with its program group and icons.



The Welcome Screen

Choosing a User Level

O*NET opens with a few panels of explanatory text. You then see the Welcome screen. Here you are asked to define your level of familiarity with the Viewer. You have these choices:

- New
- Experienced
- Expert

The default setting is for New Users. That's the setting you should choose until you have some experience with both the Search Menu and the Activity Menu. If another user has set the Viewer to a different level, simply click by the User Level you prefer.

As you work in the Viewer, you may change your User Level at any time by going to the Search Menu or the Activity Menu buttons at the top of your screen. The **Set User Level** button appears on both the Search and Activity screens. This button returns you to the Welcome screen where you may reset the User Level. Clicking OK returns you to the Search or Activity screen.

Changes you make to this setting are stored. The last setting you use will be in effect the next time the Viewer is started.

What the User Levels Mean

New User

Select New to O*NET.. if this is one of the first times you are using the O*NET 98 Viewer. As a New User, you are guided with explanatory text through each step of the searches.

Experienced User

Select Experienced With O*NET... if you have used the Viewer before and you are planning to work in the same areas in which you previously worked. As an Experienced User you are able to access all basic functions directly. The explanatory screens will not be shown, allowing faster access to the system. Most users will fall into the Experienced category once they have run the Viewer a few times. The Help button on each screen gives information specific to that screen as well as access to the rest of the Help topics.

Expert User

Select Expert With O*NET... if you are using O*NET in a professional capacity and you are familiar with the content of the screens. As an Expert User, you have access to additional features. Like the Experienced User, the Expert User will not see explanatory screens as she or he moves within the system. However, some additional features are available to the Expert User.

Additional Features for Expert Users

By working at the Expert User level, you will be able to:

- Access the online **Data Dictionary** to obtain detailed information about descriptors. The Data Dictionary button appears on the Activity Menu only when you have selected Expert User.
- Redefine the settings used to present O*NET information. On the Expert User's screen, the Settings button replaces the Display Setting button described below. In the Settings screen, you can change Descriptor Value Presentation from standardized (0-100) values to original scale values, and you can change Parameters for Occupational Profiles and Skill Searches.

These issues are discussed at length under *Parameters* later in this chapter.

TIP:

Expert Users... should check the bottom of all Help screens for any special information or discussions for advanced users of the O*NET 98 Viewer.

Display Setting Button

Configuring the Viewer's Appearance on Your Monitor

The O*NET 98 Viewer can occupy either the entire screen or a window on the desktop. This window can be resized and moved. Changes you make to this setting are stored and will be in effect the next time the Viewer is started. The default setting is a full screen display.

To Change Display Setting

This small menu, reached from the **Display Setting** button on the Search Menu or the Activity Menu, toggles the Viewer between a full screen display and a smaller display set in a window. The window mode can be useful if you would like to have some other application available to view or use while you are running the Viewer. This setting is saved and remains in effect the next time the Viewer is started.

Effect of Different Monitor Resolutions

Depending upon the setting of your display driver, you may notice small differences in the effect of your chosen Display Setting at different screen resolutions and font sizes. (To determine your screen resolution and fonts setting, look at Display in the Control Panel of your Windows system.)

For some monitor resolution settings, the Display Setting button may have little effect, because the window display occupies nearly the whole screen.

640x480 Resolution

Little difference will be observed between full screen and window displays.

800x600 Resolution — (Preferred Setting)

The Viewer has been designed to display optimally at this resolution in either window or full screen mode. (However, if the Large Fonts setting is selected, little difference will be observed between full screen and window displays.)

Higher Resolutions

The Viewer should operate well in either window or full screen mode.

Please report any display problems to O*NET Technical Support. You will find the contact information on page one of this *User's Guide*.

Expert Level Settings Options

Settings

The **Settings** button replaces the Display Setting button when the User Level is set to Expert. The Settings screen available to expert users allows you to do the following:

- Change the Screen Display (See . . . *Display Setting* on preceding page)
- · Change Descriptor Value Presentation (See following page.)
- Change Profile Parameters (See Chapter 20, page 119, Profile Parameters.)

 Change Skill Search Parameters (See Chapter 21, p. 121, Skill Search Parameters.)

Changes made to Screen Display or Descriptor Value Presentation are saved, remaining in effect the next time the Viewer is started.

Changes made to Skills Search Parameters and Profile Parameters remain in effect only for the current session.

Parameters

Descriptor Value Presentation

Each descriptor in the O*NET 98 Database is associated with a scale, such as Importance, Level, and Frequency of activity.

Each scale has a minimum and maximum value.

Importance	1-5
Level	0-7
Frequency	1-4

Because each of these scales covers a different numerical range, a descriptor mean of 3.0 signifies something different in each scale.

To make reports generated by the Viewer more intuitively understandable to users, descriptor means have been standardized to a scale ranging from 0 to 100. This is the default setting for the Data Dictionary, Profile, Skills, and Details.

Expert Users, however, can choose to display means using the original scale value instead of the standardized values. This value presentation is primarily applicable to the Data Dictionary, where you can also view scale anchors and understand the significance of the scale values. Please note that even if you choose original scale values for the Data Dictionary, Profile and Skills, you will still see standardized values in the Details screen. The Details screen cannot be changed.

This setting is saved and will be in effect the next time the Viewer is started.

Understanding Scales

To make sense of the different rankings, you need to understand the significance of the scale. Many people find it particularly difficult to understand the difference between *Importance* and *Level*. As an example, consider skills. While the same skill can be important for a variety of occupations, the amount or level of the skill needed in those occupations can differ dramatically. For example, the skill "speaking" is important for both lawyers and paralegals. However, lawyers (who frequently argue cases before judges and juries) are required to have a High Level of speaking skill, while paralegals only need an Average Level of this skill. For more information, see *Level of Skill Required Scale* (p. 46).

A third scale, *Frequency*, answers the question, "How often is this activity performed on the job?" for the descriptors of Work Activities and Work Context.

The Work Context, Interests, and Work Values descriptors use several additional scales. To better understand them, you should work at the expert user level and use the Data Dictionary.

For a better understanding of all of these issues, researchers, counselors and other professional users are referred to the Content Model Report and *Data Dictionary*. For information on content-related questions, or the availability of these reports, contact the National O*NET Consortium. See page one of this *User's Guide* for contact information.

Navigating in the O*NET 98 Viewer

Keystroke Shortcuts

Most users will move from screen to screen in the Viewer by clicking on the buttons on the screen.

If you do not use a mouse, notice the underlined letter in the button caption. Use the **Alt** key in combination with that letter.

Example: A button marked "QK" can be clicked by holding down the **Alt** key and typing the "O" key.

If a button does not have an underlined letter, use the **Tab** key to move from button to button. Press **Enter** to select the highlighted button.

You will find a chart on *Keystroke Shortcuts* in Chapter 22 (p.123). It includes specific help for moving through the Report Preview screens.

Moving Through Online Help

Scroll through windows by using the scroll bars at the right or the **Arrow** keys on your keyboard. Look for phrases that are underlined and displayed in green:

Example: For more information

These are "hotspots." Clicking on a hotspot will take you to an additional or closely-related screen of online Help. To exit a Help screen, click on **X** or **Exit**. If you are using a keyboard, use your **Tab** key to jump from hotspot to hotspot and press the **Enter** key to get to the related Help screen.

Other Hints

Occasionally a button will appear dimmed or "grayed-out." This means that the function provided by the button cannot be used at this time.

Enter key will select the default button in most screens. If you are selecting from a list, pressing the **Enter** key will make the selection, close the screen, and return you to the previous screen in which you were working.

Esc (Escape) key or **Ctrl+F4** will close most screens. If you are in a screen where you may make a selection from a list, pressing **Esc** will have the effect of closing the screen without making a selection and will return you to the previous screen. In a screen where there is a **Cancel** button, pressing **Esc** will have the same effect as clicking Cancel.

Toolbar The O*NET 98 Viewer displays a toolbar at the top of the screen at all times. The toolbar has buttons for the Search and Activity Menus, the two major parts of the system. Use the toolbar to switch back and forth between major options on the Search and Activity Menus without losing your selected occupation.

Until an occupation is selected, only the Content Model option is available in the Activity Menu.

Exit... (or pressing Alt+F4) closes the Viewer.

Help... (or pressing the F1 key) displays a Help screen appropriate to the screen you are currently viewing.

Accessibility Options and Built-in Aids

Windows Accessibility Options

We recommend exploring *Accessibility Options* in the Control Panel of Windows 95 to enhance your viewing and use of the O*NET 98 Viewer. These options allow you to reset screen colors and contrast, use sticky keys for shortcuts, employ visual/sound cues, and control the action of your mouse. As with any application, you will need to experiment to discover which options work best with the O*NET 98 Viewer and the memory limitations of your own computer. The viewer is usable with the High Contrast display option if the following steps are followed:

- 1) Click "Settings . . ."
- 2) Select "Black on White"

To uninstall Accessibility Options, uncheck your choices and settings and click the OK button at the bottom of your screen. (Note: If you have selected Large Fonts, it may be necessary to scroll down the screen to be able to see this button.)

Built-in Accessibility Aids

All actions are accessible via the keyboard, allowing for the use of foot or breathcontrolled keyboard devices.

Color has been used to aid visibility on desktop and laptop display monitors.

The O*NET toolbar appears at the top of all screens, making it easier to toggle from menu to menu. The button for the screen in which you are working also appears in the toolbar.

The Viewer can be set to full screen or a windowed display. Using Windows Control Panel settings, you can set your monitor to the resolution and screen font size you prefer.

When the Viewer is set to "New User," explanatory text automatically appears onscreen to guide you through your searches. You can switch to "Experienced User" mode. At any time during a session, you can return to "New User" mode.

The Help button on each screen takes you directly to information related to that screen. Many Help pages have "hotspot" jumps to other useful information. From any Help page, you can choose Contents or Index to find answers to questions.

The formatting and printing of all Reports are fully automated for the printer defined as your Windows default.

Technical Support and Content Support are available via the World Wide Web. Please see page one of this User's Guide.

Section II. Searching for O*NET Occupations

Chapter Three: The Search Menu

- · Functions of the Search Menu
- · Importance of the Search Menu

Using the Search Menu

The **Search** Menu is the normal starting point for using the Viewer. You will be led directly to it from the Welcome screen. The goal of working in the Search Menu is to identify occupations by their O*NET titles and codes.

The Search Menu offers a variety of ways to locate occupations and to get their designated O*NET occupational titles and codes. You may do the following:

- Search by Titles/Codes
- Search by Keyword
- Search by Related Occupations
- Search by matches in Crosswalks
- Search by building a list of personal **Skills**
- Search by reading through Reports and More Information

Each of these options is discussed in a separate chapter.

Importance of the Search Menu

O*NET has its own naming and numbering system for classifying titles and codes. This system is based upon the Occupational Employment Statistics (OES) classifications. To work in the Activity Menu, you need to identify your target occupation by its actual O*NET title or code. The buttons on the left side of the Search Menu screen make this process easy and interesting.

To learn more about how O*NET was designed and organized, be sure to read *How O*NET Titles and Codes Were Derived*, (p. 26).

You may notice that both the **Search** Menu and the **Activity** Menu are available to you from the toolbar at the top of the Welcome screen. The Activity Menu is the other main menu of the O*NET 98 Viewer. However, the Activity Menu is largely disabled until you have selected a specific O*NET occupational title or code in the Search Menu. Once you have selected an O*NET occupation, the Activity Menu will automatically open, allowing you to find many kinds of information about your selected occupation. See Chapter 10, (p. 55) *The Activity Menu*.

Returning to the Search Menu

You can return to the Search Menu at any time, from any menu, by selecting its button at the top of your screen.



The Search Menu

Chapter Four: Searching by O*NET Titles or Codes

- Titles and Codes Search Options
- Derivation of O*NET Titles and Codes

Overview

Titles/Codes This button takes you on a search of O*NET occupations by title or classification code. It also offers you a way to **search by keywords or phrases** describing the occupation. In addition, you can ask for a list of occupations related to the occupation that interests you. Titles/Codes offers a wealth of information. Take time to explore it fully.

What You Can Do

The **Titles/Codes** screen displays over 1,100 O*NET titles, codes and definitions. From this screen, you can do the following:

- View the occupation list by occupation title
- View the occupation list by codes
- Type in a particular occupational title or code
- \bullet Scroll through the list to select an occupation
- \bullet Use keywords to search for titles and text definitions
- View a list of related occupations

For additional ways to identify an occupation from the Search Menu, select the **Crosswalks** or **Skills** buttons and perform a search from these menus.

How O*NET Titles and Codes Were Derived

The structure of O*NET is based on the Occupational Employment Statistics (OES) classification system of the Bureau of Labor Statistics. It has been expanded through O*NET research to provide more detailed information on certain occupations.

Generally, the titles used for O*NET occupations reflect OES titles.

O*NET codes are similar to five-digit OES codes, with more detailed information on particular occupations indicated by the addition of a sixth alphabetic character.

As the revision of the Standard Occupational Classification (SOC) is implemented, O*NET's classification structure will evolve to reflect that new system.

For Expert Users...

To understand more about the development of O*NET, please read Chapter 18, (p. 105), O*NET Occupational Units and Analyst Ratings.

How to Search by Title or Code

Select Titles/Codes. The O*NET 98 Occupations Titles & Codes menu opens. First, make a selection in the View By . . . box located in the right hand corner of the screen. (The default selection is View By Title.)

When **View By Title** is selected, O*NET occupational titles are displayed. They are in alphabetical order. A definition is displayed for the highlighted title. If you start typing in the **Search For...** box, the list will scroll to match your typing. This can be a useful tool if you know the first letter or two of an occupational title.

When **View By Code** is selected, O*NET occupations are listed in O*NET code order, and their titles are also displayed. If you start typing numbers in the **Search For...** box, the list will scroll to match the code you type.

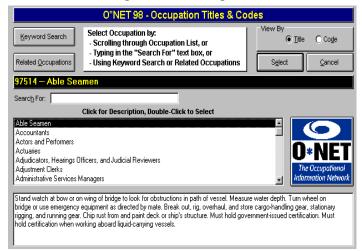
As you scroll through or click on the occupational titles, a definition of the high-lighted occupation is displayed in the text box at the bottom of the screen. Clicking the **View By** box at the corner of the screen toggles the display quickly between **Codes** or **Titles**. **Codes** will show the occupation within its industry group. **Titles** will show similarly titled occupations, but these may be in various industries.

Select will select the highlighted occupation and open the Activity Menu.

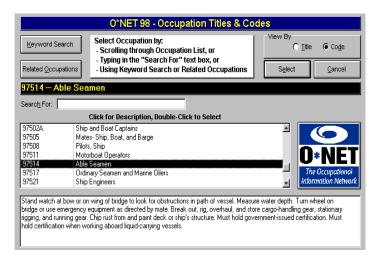
Cancel will return you to the Search Menu without changing the currently selected occupation.

TIP:

Reports button (in the Search Menu) offers a report defining the currently selected occupation and listing its tasks.



"Able Seamen" by Title



"Able Seamen" by Code

Chapter Five: Searching by Keyword

· Using Keywords to Search in Titles and Definitions

Overview

Information in O*NET is accessed by searching on a specific O*NET occupational title or code. A Keyword Search is a quick way to discover the most useful O*NET titles and codes for the kind of work you have in mind when you don't know its formal title.

A Keyword Search will look for an occupation based on a word or phrase describing it. You simply type a word or phrase in the Search box. For example, if you wanted to do work that helps preserve the environment, but you didn't know the formal titles for those occupations, you could do a keyword search for "environment."

How to Perform a Keyword Search

- From the Search Menu, choose <u>Titles/Codes</u>, <u>Keyword Search</u>.
- Type a word, a part of a word, or a phrase in **For Keyword**
- · Click Search.

Searching for O*NET Occupations

By default, the Keyword Search will look at all O*NET occupational titles, and also at their text definitions.

- To restrict the search to titles only, uncheck **Definitions**.
- To restrict the search to definitions only, uncheck **Titles**.
- To create the *largest* By Titles list, type only part of the keyword.

Examples of a Keyword Search "By Title:"

- Typing "admin" will pick up entries for administrative assistants, administrators, etc.
- Typing "animal" will pick up nine titles; typing the plural "animals" will pick up only one title.

When the search is finished, an alphabetical list of occupations is displayed. The number of occupations found is also noted.

• Scroll and click through this list to display the definition of each occupation. If you have asked for a search by both title and definition, you may find your keyword in the text definition of the occupation, rather than in the title. It can be a word or a part of a word: a search for "mate" will bring up definitions including "budget estimates" and "materials."

Select closes Keyword Search, automatically opens the Activity Menu and places the highlighted occupation into the Selected Occupation bar. From the Activity Menu, the **Reports** button takes you to a Reports menu, where a report of the Current Occupation and its tasks can be previewed and printed. With the occupation still selected, this same report can be printed from the Search Menu.

Cancel returns you to Titles/Codes without changing the current selection in that screen.

Chapter Six: Searching by Related Occupations

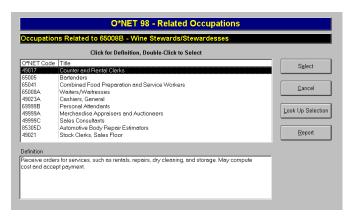
- Reaching the Related Occupations Screen
- · Printing a Report of All Related Occupations
- Explanation for Expert Users

Related Occupations

The **Related Occupations** screen displays a list of occupations that have similarities to the one you have selected. These similarities could be working conditions, general skill requirements, or other characteristics. This option can be helpful if you would like to investigate different but related career fields or if you are an employer looking in other fields for employees with transferable skills. Once you have found an occupational title similar to the one you seek, Related Occupations may turn up exactly the occupational title you have in mind.

The lists of related occupations were empirically derived using a mathematical algorithm comparing the selected occupation to all other O*NET occupations. All the O*NET Knowledge, Skills, Abilities, Work Context and Generalized Work Activities variables were used to make these comparisons. The lists of related occupations were further refined through a rational, multi-stage sensitivity screening process.

The procedure used for developing Related Occupations is only one of many ways to use O*NET information for different purposes. For example, the use of O*NET education variables to compare and associate O*NET occupations may result in significantly different lists of related occupations.



Related Occupations from Titles/Codes

Navigating to Related Occupations

Related Occupations is reached by choosing either **Titles/Codes** from the **Search** Menu, or **Profile** from the **Activity** Menu. Related Occupations displays titles and definitions of up to ten occupations that are related to the occupation displayed in the title bar.

Two Ways to Search by Related Occupations

- From Search Menu, <u>Titles/Codes...</u> you will see a scrollable list of occupations. You can view their definitions by clicking on each title that interests you. (A double-click opens the Activity Menu.) Select one of these related occupations for further exploration. You can explore through the Activity Menu or by returning to Search Menu and looking at Crosswalks.
- From **Activity** Menu, **Profile** . . . the occupations and definitions are displayed together.

HINTS:

Report can preview and print ALL the related occupations and their definitions. Looking at the report *on screen* is an efficient way to study the related occupations.

Cancel will return you to the Titles and Codes screen.

Select will close your Related Occupations search and automatically place the occupation you have highlighted in the display bar in the Titles/Codes screen.

Look up Selection will find additional occupations related to an occupation highlighted in the list. It may be helpful to trace several different related kinds of work in this manner.

Chapter Seven: Searching through Crosswalks

- Looking up Occupations by Title or Code
- Looking up Occupations by Typing a Text Definition

Finding an Occupation by Using Crosswalk Search

If you know an occupational title or code in one of eight other classification systems (such as Census Occupations), you can use Crosswalk Search to find its equivalent in the O*NET system. You will find the Crosswalks button on the Search Menu.

When to Use Crosswalks from the Search Menu

Crosswalks show the relationship of O*NET occupations to titles and codes in eight other occupational classification systems. Often, an O*NET occupation will correspond to more than one occupation in another system. In the same way, an occupation in another system may be matched with more than one O*NET occupation.

Use Crosswalks from the Search Menu to:

- Look up the O*NET title and code for an occupation whose title or code you already know from another classification system. O*NET will present its closest matches, and you can select one of these to use as the basis for further exploration.
- Search for an occupation whose formal title you don't know. You do
 this by typing in a word, phrase, or part of a word. For example,
 you can query Crosswalks for all titles that contain the word

"computer" to find computer-related occupations, or you could search for "admin" to pick up titles that include "administrator," "administration," and "administrative."

How to Conduct a Crosswalks Search

When you open **Crosswalks** from the Search Menu with no occupation selected (as would be normal at the very beginning of a session), the title bar will be blank and Crosswalks will open displaying an alphabetical list of titles from the *Dictionary of Occupational Titles* (DOT), beginning with occupations under "A."

- 1. To conduct your search in a particular crosswalk, select that classification system from the drop down menu at the top of the screen. There are eight classification schemes.
 - Dictionary of Occupational Titles (DOT)
 - Standard Occupational Classification System (SOC)
 - Classification of Instructional Programs (CIP)
 - Guide for Occupational Exploration (GOE)
 - 1990 Census Occupations (CEN)
 - · Office of Personnel Management Occupations (OPM)
 - Military Occupational Codes (MOC)
 - Apprenticeship Information Management System (AIMS)

These are described fully in Chapter 19, (p. 109), *More about Crosswalks*.

- 2. In the Search In . . . option, choose either Codes or Titles.
- **3.** In the **For Condition** . . . option, indicate whether you wish the search to find codes or titles that contain the search text or that start with the search text. Use **Starts With** for searching for a known code. Use **Contains** for searching for titles.
- **4.** In the **Search For...** box, type the text you wish to locate.
- 5. Click Search.

TIP:

The text you type can be a whole word, a phrase, or even part of a word. If the results surprise you, the word may be hidden within them. For example, searching for "mate" will turn up titles including "ship's <u>mate</u>, <u>mate</u>rial handler," etc. Scroll through the whole list carefully to find your target occupations.

Chapter Eight: Searching by Describing Skills

- Overview of Using the Skills Profile Option
- · Choosing Skills from a Skill Group for Your List
- · Reviewing Your Results Report
- · Changing Your Skill List
- · Changing the Level of Skill Required

Overview

The Skills option on the Search Menu helps you to create a list of skills and to use that list to find occupations where those skills are important. The detailed explanation below, as well as Help screens within the menus, will guide you in carefully building a Skills List and using it to search for occupations. You will discover what occupations require the skills you have chosen, and also whether there are important skills for those occupations that you have not included in your list.

Building a Skills Profile

Skills Search

A Skills Search uses a list of skills you have selected and identifies occupations where those skills are needed. The results of a Skills Search will also tell you, for each occupation you explore, if there are any skills needed that you have *not* put in your list.

Having the skills to do the job is an important first step for good job performance and personal satisfaction. For an employer, a skills-based search can help create job descriptions and locate workers whose skills are transferable. Such a search is also recommended for workers seeking to use their current skills in new careers.

Overview of Skill Searching

Building and using a Skills List takes several steps, which are explained in detail below. First, here is a brief overview.

- Build your Skill List. It is not necessary to choose skills from each group. You can even concentrate on a single skill or a single group of skills.
- Review your list, making sure it has the skills you want to use.
- Request your report. You'll see a list of occupations where the skills you listed are important.
- Select one of the occupations, then return to the Activity Menu to investigate further by calling up Profiles and Details.

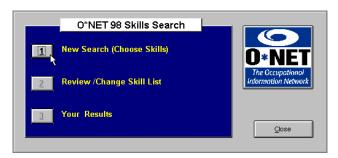
After identifying O*NET occupations employing the skills you have selected, you can use the O*NET 98 Viewer to discover a wide range of information about these occupations, including work activities, knowledge requirements, work environments, training requirements, and preferred work styles.

Performing a Skills Search

From the Search Menu, choose **Skills.** The Skills Search screen opens, offering three options:

- · New Search (Choose Skills)
- · Review/Change Your List
- · Your Results

When this screen first appears, **Review/Change Skill List** and **Your Results** are dimmed. After you have selected skills, these buttons become available.



Skills Search

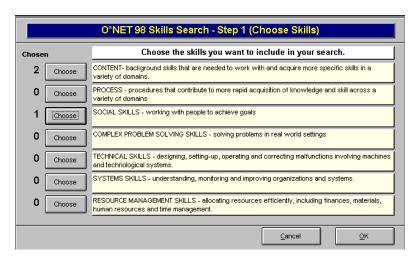
Step 1— Choose Skill Areas

When you select New Search from the Skills Search Menu, the **Step 1 (Choose Skills)** screen opens.

Here you see descriptions of seven broad skill areas. Each contains skills of a certain type. O*NET emphasizes these broad areas because they are transferable across occupations. For example, *Social Skills: working with people...* would be useful in a number of different work situations.

Click Choose... to select a skill area to explore. (You can tab between areas.)

Click **QK...** to continue, after you have worked through all seven skill areas.



Use the Step 1 Menu to explore various types of skills.

Click **Cancel** to return to the Skill Search Menu without saving your choices.

TIP:

If you are revising a list of already chosen skills, clicking Cancel will leave your original selections unchanged.

Step 2 — Choose Skills

When you select a Skill Type to explore, the **Choose Skills** screen opens, displaying all of the skills for that group. The Skill Type title appears at the top of the screen. Two list boxes appear:

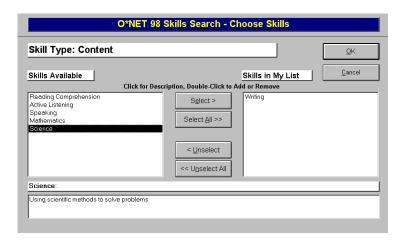
- · Skills Available
- · Skills in My List

To add a skill . . .

 Highlight the skill, then click Select or press the Enter key or double-click the skill.

To remove a skill...

• Highlight the skill, then click **Unselect** or press the Enter key or double-click the skill. It will be restored to Skills Available.



In Step 2, you select specific skills.

In either box, as you highlight a skill, you will see its definition displayed.

OK saves your choices and takes you back to the Step 1 menu.

As you accumulate your choices, numerals indicating the number of skills you have chosen from each skill group appear on the left side of those group headings. When you have worked through all seven groups, click <u>OK</u> to continue to Step 3.

Cancel returns you to the Skills Search Menu without saving.

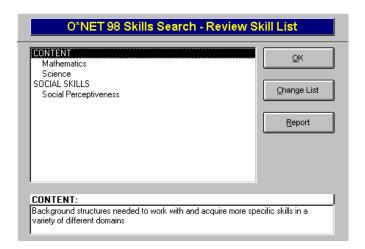
Step 3 — Review Your Skill List

The Review Skill List screen displays your Skill List organized by group names and skills within the groups. You can click a skill group or skill name to view the description in the box below.

Change List . . . returns you to the Skill group menu to revise your list of choices.

Report . . . prints a list of your skills and their definitions.

OK... continues the search.



A chance to review your choices

Step 4 — Preview and Print Your Skills Search Report

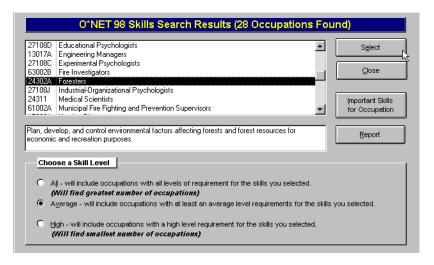
The O*NET 98 Viewer calculates your matches and opens **Skills Search Results**, an alphabetical listing of occupations for which the skills in your list are important. The heading tells you how many occupations were found. Scroll through the list, using the scroll bars or the arrow keys. As you highlight each occupation, its definition appears in the text box.

You can preview and print two different kinds of reports:

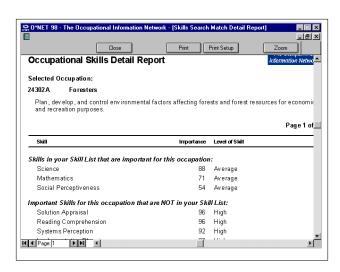
- Report (Skills Search Results screen) creates a record of the skills used in your search, and a descriptive list of occupations that require those skills. It does not describe their skill requirements in detail. This report is helpful if you want to read over the occupational definitions before spending more time investigating. It may be viewed on screen or printed.
- Important Skills for Occupation takes you to the Important Skills screen, where you can scroll through a listing of skill requirements for the highlighted occupation. The first skills listed correspond to those on your Skill List. The report also tells you about skills important to the occupation that were not on your list. Finally, if there were skills on your list that are not important for the occupation, these are listed as well.

The Report button on the Important Skills for Occupation screen creates an **Occupational Skills Detail Report** describing the occupation, the Importance and Level of each skill required, and a reminder list of the skills used in your search. *The values for both Importance and Level are printed, along with a Key to Importance Values*.

You may print the Occupational Skills Detail Report or go back and look at another occupation in the list.



This screen shows the results of your search. "Important Skills" gives you more details on a single selected occupation. "Report" prints your Skill List and definitions of all occupations that need your skills.



A portion of the Important Occupational Skills Detail Report

Understanding the Scales

Importance of Skill Scale

This scale answers the question:

"How important is this skill to performance on the job?"

100 Extremely Important

75 Very Important

50 Important

25 Somewhat Important

0 Not Important

Since this is a report requesting Important Skills, the numbers will range from 100 (Extremely Important) down to about 50 (Important). You can see numerically exactly how important the skill is to the performance of the job. Note: these cutoff points can be reset by expert users. It can be useful to lower the cutoff value when searching for occupations where most of the skills are rated below 50 in importance.

Level of Skill Required Scale

This scale answers the question:

"What level of this skill is needed to perform this job?"

Skill Level refers to the level or amount of a skill that the job duties of an occupation demand. While the same skill can be important for a variety of occupations, the amount or level of the skill needed in those occupations can differ rather dramatically.

For example, "using mathematics to solve problems" is rated as a very important skill for a wide variety of occupations, including Mail Clerks, Bookkeepers and Statisticians. However, to perform the job duties of a Statistician requires a skill level of 90, while a Bookkeeper needs a skill level of 60, and a Mail Clerk needs a skill level of 33.

Changing the Skills in Your List

You may wish to change your Skill List if the occupations listed are not satisfactory. Just click **Close** to return to the Review Skill List menu.

Changing the Level of Skill Required

By default, the Viewer lists occupations requiring at least average amounts (levels) of the skills you have listed. The report you print will be for occupations at or above the level that is selected when the report is created. You may wish to change the level of skill required to see how this alters the number of occupations listed.

To change the Skill Level, click one of the three choices in the box at the bottom of the screen. A description of each of the three Skill Level Ranges is presented by the buttons. The list of occupations will change with your range selection. By clicking on each in turn, you can quickly review the occupations at each Skill Level.

Remember, Skill Level answers the question, "What level of this skill is needed to perform this job?"

- ALL includes occupations where the skills on your Skill List are considered important, but the *level of skill* needed to perform the job may be Low, Average or High. ALL will find the most occupations.
- AVERAGE includes occupations where the performance level for the skills on your list must be at least average.
- HIGH includes occupations where the performance level for the skills on your list must be high. HIGH will find the fewest number of occupations.

Step 5 — Using Your Findings

When you are finished looking at your Report, you can do the following:

- Click Select to select a highlighted occupation and open the Activity Menu
- Click <u>Close</u> to return to the <u>Skills Search</u> Menu to initiate a new search or change your skills

Note: Your Skill List and search results are saved for the current session. You may return to the Skill Search at any time and revise your list or return to the Skill Search Results at any time and select a new occupation from the list.

Hints for Skill Searching

You may always change your mind. The O*NET 98 Viewer will help you modify and quickly rerun your search.

Use the Help button when you have questions during your search. The Help screen applies directly to the menu you are working on at the time.

Reports can be displayed on the screen or they can be printed.

For Expert Users...

Some interesting occupations require a variety of skills, the most important of which of which are rated just below "Important" (50). Long-distance truck driving is an example. To find such occupations, it may be necessary to lower the cutoff value for both Level and Importance scales. Do this by changing the setting in Parameters from the Settings button on the Search Menu.

Chapter Nine: Searching by Looking at Lists and Reports

- Overview
- · A Review of Ten Reports Available from the Search Menu

This chapter covers information available from two buttons (Reports and More Information) on the Search Menu.

Overview

Almost all of the information provided in the Viewer may be generated in the form of formatted, printable reports. Some of these reports are lengthy. Preview them on screen before printing. A zoom feature allows you to place your cursor on any section of the report and click to enlarge the area. The following major sets of reports are available directly from Search Menu.

- · Equal Opportunity Guidance Letter No. 4
- · Current O*NET Occupation
- All O*NET Occupations by Title
- · All O*NET Occupations by Code
- All O*NET Occupations by Title, Code and Definition
- BAT Apprenticeable Occupations
- BLS Employment Projections
- · America's Career Kit
- · Unpublished DOT Occupations
- Vendor Enhancements

Reports

This button allows you to view or print useful lists of information about occupations. Simply glancing through these lists can inspire your career search.

The Reports screen allows you to choose from four different reports that can be viewed on the screen or printed:

Current Occupation (Title, Code, Definition and Tasks)

• Defines the occupation you have currently selected in the title bar. Employers may wish to use this report as a starting point for composing job descriptions.

All Occupations by Code (Title and Code only)

• Lists all O*NET occupations, sorted in order of code, showing title and code only. This report is about 30 pages on most printers.

All Occupations by Title (Title and Code only)

• Lists all O*NET occupations, sorted in order of title, showing title and code only. This report is about 30 pages on most printers.

All Occupations (Title, Code and Definition)

• Lists all O*NET occupations, sorted in order of title, showing title, code and definition. This report is about 90 pages on most printers.

Preview a report on the screen by clicking **Preview**, or print it by clicking **Print**.

Because several of these reports are lengthy, the Viewer displays an approximate page count and will ask you to confirm that you want to print the report before sending it to the printer. You may elect to print only certain pages of the report.

More Information

This button allows you to choose among six different reports that can be viewed on the screen or printed.

Equal Opportunity Guidance Letter No. 4

 This letter presents guidelines for providing computer-based services to individuals with disabilities.

BAT Apprenticeable Occupations

 This 46-page report lists occupations officially recognized as apprenticeable by the Bureau of Apprenticeship and Training.

BLS Employment Projections

• This report from the Bureau of Labor Statistics summarizes new employment projections.

America's Career Kit

 This report includes information about America's Job Bank, America's Talent Bank, America's Learning Exchange, and America's Career InfoNet.

Unpublished DOT Occupations

• This report lists 23 DOT occupations and their O*NET equivalents, developed since the last publication of the DOT.

Vendor Enhancements

• This report describes examples of products that software developers may be producing using O*NET data.

You can preview a report on the screen by clicking **Preview**, or print it by clicking **Print**.

Section III. Exploring Occupations

Chapter Ten: The Activity Menu

· Overview of the Activity Menu

Activity Menu

The **Activity** Menu allows access to useful information about the occupation you have selected. To select a different occupation to explore, click on the **Search** Menu button at the top of the screen.

The Activity Menu can help you answer questions for any occupation:

- What general experience or education do I need?
- · What occupation-specific training and skills do I need?
- · What abilities will my prospective employer seek in me?
- · What demand is there for workers, and what is the pay?
- · What additional training will I need?

The main functions of the Activity Menu are found on the left side of the screen.

Profile gives you a profile or snapshot of the selected occupation. It presents summary information about the most important characteristics of the occupation.

Details gives you more detailed information about the selected occupation. The current version of the Viewer includes 483 variables for each occupation, as well as a list of occupation-specific tasks.

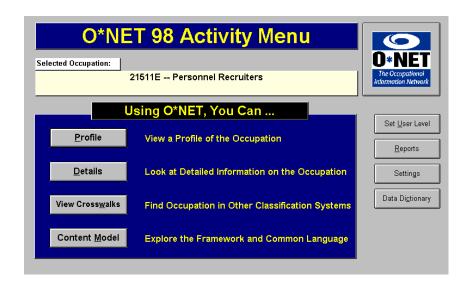
View Crosswalks shows you how other systems, such as the *Dictionary of Occupational Titles*, would classify the selected occupation. Viewing Crosswalks may give you additional career ideas.

Content Model allows you to browse the O*NET Content Model. The Content Model is a hierarchical structure that organizes information about an occupation. The Content Model forms the basis for organizing the information presented in the O*NET 98 Viewer.

Three other functions of the Activity Menu — **Set User Level, Reports,** and **Display Setting** — appear also on the Search Menu. These functions are described elsewhere in this *User's Guide*. See pp. 11-14 and Chapter 9 (p. 49).

For Expert Users...

Data Dictionary This is an additional button on the Activity Menu available to expert users. It displays complete information about each descriptor, including name, definition, outline position, variable name, scale, and value (standardized or original scale). Double-clicking a descriptor produces an even more detailed report. The Data Dictionary screen also allows you to produce a report of significant Content Model descriptors for the selected occupation.

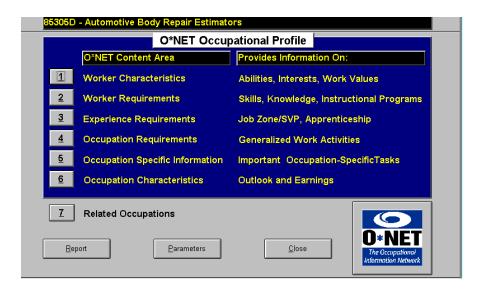


The Activity Menu

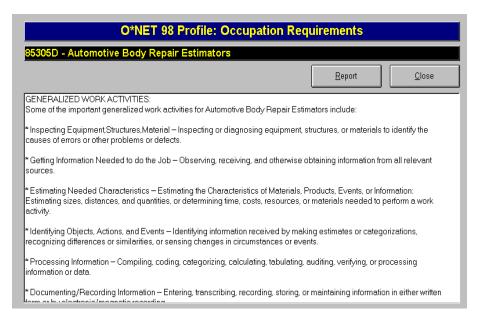
Chapter Eleven: Viewing an Occupational Profile

- · Descriptors that Comprise the Profile
- · How to View and Print a Profile
- · How to View and Print Related Occupations

Profile provides summary information about an O*NET occupation. The summary information is presented under the six domains of the Content Model. A seventh button provides information on Related Occupations.



The Profile Menu. "Report" prints information for all seven areas.



A scroll-down display of Generalized Work Activities from Profile

The six domains provide a useful overview of the important aspects of an occupation. By looking at the information presented in an Occupational Profile, you can get a better understanding of what it takes to perform the occupation. Only the most important characteristics are presented under Profile. Additional information is available through Details or Data Dictionary.

How to Use Profile

- Click the buttons to view information for each of the six domains of the Content Model. For example, when you choose Worker Characteristics, you get a report showing the Abilities, Interests, and Work Values for that occupation.
- Click **Report**, **Print** for a printout of all the Profile information for the occupation selected in the title bar. For most occupations, the printed Profile is about ten pages long. The report will include

Related Occupations (described on the following page and in Chapter 6, [p. 31]).

Hint:

You can find even more information by using the **Details...** button, discussed in Chapter 12 of this *User's Guide*. (See p. 61.)

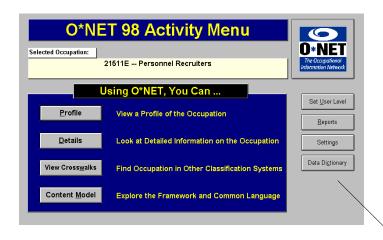
For Expert Users...

Information on **Experience Requirements** also includes Specific Vocational Preparation (SVP) ranges.

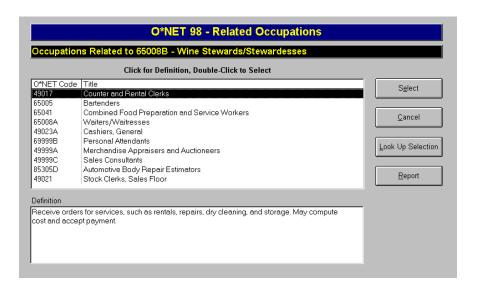
Clicking the **Parameters** button allows you to change Profile Parameters.

Any changes you make here will remain in effect for the current session only.

Defaults are restored when the Viewer is started again.



Information in addition to that in Profile is available to expert users through the Data Dictionary. The Data Dictionary button appears to the expert user when an occupation is selected in the Activity Menu.



Related Occupations reached from Search Menu, Titles/Codes shows up to ten other occupational titles where the work, skills or requirements are similar to the selected occupation.

Related Occupations

At the bottom of the Occupational Profile menu, you will see a seventh button, **Related Occupations**. Click it to view up to ten occupations that have characteristics similar to the occupation you are exploring. This information can help you expand your career exploration by identifying occupations that may require similar or transferable skills. These occupations may even be in a different industry, but their characteristics are similar. Read Chapter 6, (p. 31) for more information about searching by related occupations.

Chapter Twelve: Looking at Details for an Occupation

- · Getting More Information by Using the Details Option
- Printing Reports from the Detail Option
- Other Useful Reports Available Elsewhere in the Viewer

Overview of Details for Occupation

While Profile gives you a view of an occupation's sub-domains, the Details for Occupation screen allows you to view 483 variables for each O*NET occupational title. This information is organized in terms of the following:

Knowledge

Organized sets of principles and facts applying in general domains

Skills

Developed capacities that facilitate learning, or the more rapid acquisition of knowledge, and that facilitate performance of activities that occur across jobs

Abilities

Enduring attributes of the individual that influence performance

Work Activities

General types of job behaviors occurring on multiple jobs

Work Context

Physical and social factors that influence the nature of work

Tasks

Occupation-specific tasks

Interests

Preferences for work environments

Work Values

Importance of particular aspects of work



The Details for Occupation Menu

How to Navigate to Details for Occupation

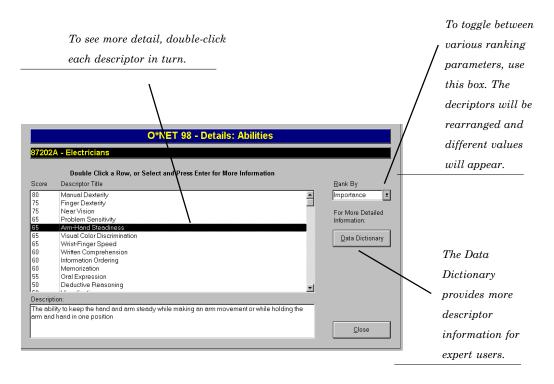
- Clicking Details on the Activity Menu takes you to the Details for Occupation Menu, which displays a choice of eight information buttons. Seven of these buttons offer lists of descriptors;
 Tasks offers a list of occupation-specific Tasks.
- The title bar reminds you of the occupation selected. Click one of the buttons to open the **Details**: *nnn* (*group descriptor*) menu.
- The **Details:** nnn menu shows you a list of descriptive words or phrases. These descriptors are ranked numerically. If more than one scale is used, a small box to the right of the list of descriptors tells you which scale is currently displayed. As you toggle between these scales, you probably will see the descriptors rearranged on the screen; their numerical values are also displayed and will change with the scale. By default, the most important descriptor

is listed first. By scrolling down the list, you can read some text about each descriptor in the list.

You have the option to change the scale being presented. For example, rather than knowing how *important* a descriptor like being exposed to bright light is, you might be more interested in the *frequency* with which the exposure occurs.

Please Note...

Work Context descriptors are displayed somewhat differently from the others. These descriptors are arranged by descending order of value without regard to scale.



Details: nnn Menu, reached from the opening Details Menu, here shows Abilities descriptors ranked by importance or level.

How Rankings Are Presented in Details

This screen displays one or more bar graphs showing the descriptor values for the element you selected in one of the **Details** areas.

Descriptors of: Ranked by:

Knowledge, Skills, and Abilities Importance and Level

Work Activities Importance, Level, and Frequency

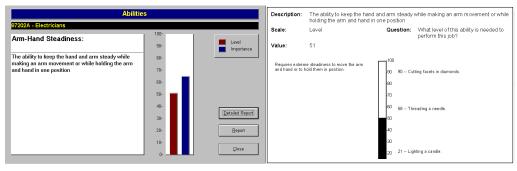
Work Context, Interests, Work Values Varies with descriptor

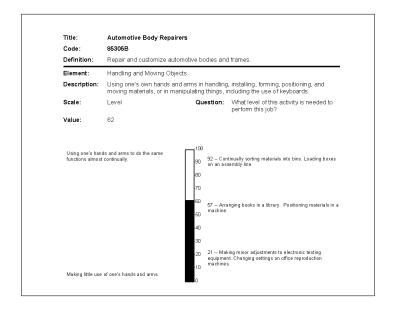
See *Understanding Scales* (p. 16) for more information on rankings.

Viewing Details

The easiest way to navigate Details is to select and double-click on a highlighted descriptor in the **Details: nnn** menu, where you can view a screen about the descriptor and press the option for **Detailed Report.** The chart in the Detailed Report typically has both a graph and narrative text. You may print this chart. Looking at the Detailed Report on screen is your best way to understand quickly the significance of this descriptor to the occupation. Once you have viewed a few descriptors in this manner, go back and change the manner in which they are ranked and observe the differences. The ability to change the method of ranking in Details helps you retrieve the information in the most useful format.

Each report in Details covers only the highlighted descriptor. There is no way to print out the entire list of descriptors and their numerical values. If you would





Another Detailed Report from the Abilities button. Notice that the graph is labeled with text to help explain the significance of the scores.

like a printed listing of all descriptors, described by scale and ranked by value, use the Data Dictionary option available to expert users.

Additional Useful Reports

If you are using the Viewer for career exploration, you may find it useful to print the additional report available under **Profile**. This **Occupational Profile Report**, available from the Activity Menu, Profile screen, furnishes you with a written summary and definitions for the important Abilities, Interests, Work Values, Skills, and Knowledge required. It also gives you examples of Instructional Programs, Related Occupations, the Job Zone, Generalized Work Activities you could expect on the job, Tasks you would typically perform, and Employment Outlook and Earnings.

After studying this Occupational Profile, you can return to Details to understand exactly how important a specific ability is, or how much of a certain skill you might need.

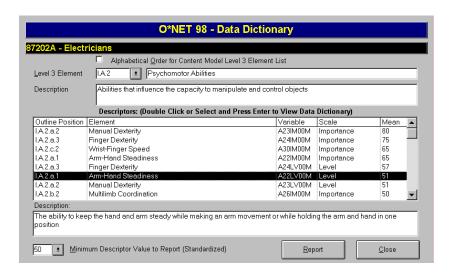
For Expert Users...

Data Dictionary

A button allowing you to access the **Data Dictionary** appears on your Details menu screen. The Data Dictionary contains more detailed information, offering additional ways to gauge the significance of descriptors for an occupation, beyond what is found in Profile and Details.

Expert users are advised to use the Data Dictionary rather than the Details screen. The Data Dictionary gives a more complete definition of each element. Set the Viewer to Expert User level, and Activity Menu will display the Data Dictionary button, which will take you directly to the appropriate screen.

Please read Chapter 17 (p. 101), Data Dictionary.



Chapter Thirteen: View Crosswalks

Viewing Crosswalks from the Activity Menu

View Crosswalks shows the relationship of O*NET occupations to other occupational classification systems. From this screen, you can view matches for your selected occupation in eight classification schemes. You can also print a report showing all matches for the currently selected occupation. Often, you will find an O*NET occupation corresponds to more than one occupation in another system. An occupation in another system can correspond to more than one O*NET occupation as well.

The View Crosswalks screen opens showing the occupation you have selected entered in the title bar by its O*NET title and code. By default, the crosswalk opens with matching occupations from the *Dictionary of Occupational Titles* (DOT) displayed. To see matches from other classification schemes, use the drop-down list at the top of the screen. The O*NET title and code remain in the title bar as you do so. You can select from eight systems; some systems may offer no matches, but most will offer several.

- Apprenticeship Information Management System (AIMS)
- 1990 Census Occupations (CEN)
- $\bullet \ Dictionary \ of \ Occupational \ Titles \ (DOT)$
- ullet Guide for Occupational Exploration (GOE)
- Military Occupational Codes (MOC)
- Office of Personnel Management Occupations (OPM)
- Standard Occupational Classification (SOC)

Exploring Occupations

TIP:

Use **Report** to quickly display and print corresponding occupations for your O*NET occupation from ALL eight crosswalks. This report can provide avenues for further exploration. Crosswalks are described fully in Chapter 19 (p. 109), *More about Crosswalks*.

Section IV. Important Background Information

Chapter Fourteen: What is O*NET?

- Overview
- O*NET Products
- · The Content Model

O*NET, the Occupational Information Network, is the nation's new primary source of occupational information. O*NET gives Americans the tools needed to participate fully and actively in a rapidly changing world of work. It offers:

- Information about what skills are in demand.
- Information to help transfer workers with proven skills to new careers
- Information on employment levels, occupational outlook, and wages

O*NET is a comprehensive database system that collects, organizes, describes and disseminates data on occupational characteristics and worker attributes. O*NET uses advanced technology to define the key elements of an occupation: descriptions of the worker and requirements of the work. Currently, there are over 1,100 occupations listed in O*NET, each with a unique title and code, and each electronically linked through O*NET to the eight major existing job classification systems.

Designed, developed and tested by scientific and technical experts under the leadership of the U.S. Department of Labor, O*NET is a collaborative effort to move beyond the sixty-year-old structure of the *Dictionary of Occupational Titles* (DOT).

O*NET 98 Products

O*NET 98 includes a suite of products using or linked to the O*NET Database and Content Model:

- The O*NET 98 Viewer, providing access to information on over 1,100 O*NET occupations. This is the software described in this *User's Guide*.
- The O*NET 98 Viewer User's Guide you are reading now.
- The core Database containing analyst-derived data on specific parts of the Content Model.
- A Data Dictionary providing the definition, description, and location of variables within the O*NET Database.

O*NET 98 products will help employers, workers, educators, and students use O*NET information to make informed decisions about education, training, careers, and work.

The O*NET 98 Content Model

The Six Domains of the Content Model

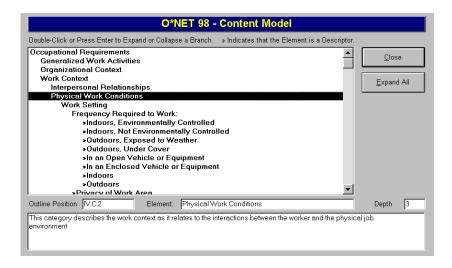
- Worker Characteristics
- Worker Requirements
- Experience Requirements
- Occupation Requirements
- · Occupation Specific Information
- Occupation Characteristics

By using comprehensive terms to incorporate occupational definitions across all sectors of the economy, the O*NET structure standardizes the way that occupa-

tional information is defined and described. The data in O*NET form a common ground of understanding on which public and private work force initiatives can work together. O*NET is a communication link to help integrate learning, training, and work.

A technical report, "Development of Prototype Occupational Information Network (O*NET) Content Model" is available from the National O*NET Consortium.

Please see page one of this *User's Guide* for full contact information.



From Activity Menu, a clickable diagram of the Content Model can be used to explore the organization of information under each of the six domains. The example here was opened from the Occupational Requirements domain. The Outline Position number refers to the location of the highlighed element within the hierarchical structure of the Content Model.

Chapter Fifteen: Job Zones

· Definitions of the Five Job Zones

Job Zones were developed for users of O*NET 98 to help them transition from the DOT's measures of Specific Vocational Preparation (SVP) to O*NET's measures of experience, education, and job training. Job Zone information is provided in the Occupational Profile.

A Job Zone represents a group of occupations that are similar in terms of the following:

- · how most people get into the job,
- · how much overall experience people need to do the job,
- · how much education people need to do the job, and
- how much on-the-job training people need to do the job.

Occupations within a Job Zone require similar amounts of preparation.

- Job Zone 1 occupations that need Little or No preparation
- Job Zone 2 occupations that need Some preparation
- Job Zone 3 occupations that need Medium preparation
- Job Zone 4 occupations that need Considerable preparation
- Job Zone 5 occupations that need *Extensive* preparation

Job Zone Definitions

Job Zone 1: Little or No Preparation Needed

Overall Experience — No previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a general office clerk even if he/she has never worked in an office before.

Education — These occupations may require a high school diploma or GED certificate. Some may require a formal training course to obtain a license.

Job Training — Employees in these occupations need anywhere from a few days to a few months of training. Usually, an experienced worker could show such an employee how to do the job.

Examples — These occupations involve following instructions and helping others. Examples include *bus drivers*, *forest and conservation workers*, *general office clerks*, *home health aides*, and *waiters/waitresses*.

SVP Range — Below 4.0

Job Zone 2: Some Preparation Needed

Overall Experience — Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is *not* needed. For example, a drywall installer might benefit from experience installing drywall, but an inexperienced person could still learn to be an installer with little difficulty.

Education — These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.

Job Training — Employees in these occupations need anywhere from a few months to one year of working with experienced employees.

Examples — These occupations often involve using knowledge and skills to help others. Examples include *drywall installers*, *fire inspectors*, *flight attendants*, *pharmacy technicians*, *salespersons* (*retail*), and *tellers*.

SVP Range -4.0 to < 6.0

Job Zone 3: Medium Preparation Needed

Overall Experience — Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training and often must have passed a licensing exam in order to perform the job.

Education — Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.

Job Training — Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.

Examples — These occupations usually involve using communication and organizational skills to coordinate, supervise, manage, or train others to accomplish goals. Examples include *dental assistants*, *electricians*, *fish and game wardens*, *legal secretaries*, *personnel recruiters*, and *recreation workers*.

SVP Range -6.0 to < 7.0

Job Zone 4: Considerable Preparation Needed

Overall Experience — A minimum of two to four years of work-related skill, knowledge, or experience is needed for these occupations. For example, an accountant must complete four years of college and work for several years in accounting to be considered qualified.

Education — Most of these occupations require a four-year bachelor's degree, but some do not.

Job Training — Employees in these occupations usually need several years of work-related experience, on-the-job training, and/or vocational training.

Examples —Many of these occupations involve coordinating, supervising, managing, or training others. Examples include *accountants*, *chefs and head cooks*, *computer programmers*, *historians*, *pharmacists*, and *police detectives*.

SVP Range - 7.0 to < 8.0

Job Zone 5: Extensive Preparation Needed

Overall Experience — Extensive skill, knowledge, and experience are needed for these occupations. Many require more than five years of experience. For example, surgeons must complete four years of college and an additional five to seven years of specialized medical training to be able to do their job.

Education — A bachelor's degree is the minimum formal education required for these occupations. However, many also require graduate school. For example, they may require a master's degree, and some require a Ph.D., M.D., or J.D. (law degree).

Job Training — Employees may need some on-the-job training, but most of these occupations assume that the person will already have the required skills, knowledge, work-related experience, and/or training.

Examples — These occupations often involve coordinating, training, supervising, or managing the activities of others to accomplish goals. Very advanced communication and organizational skills are required. Examples include *athletic trainers*, *lawyers*, *managing editors*, *physicists*, *social psychologists*, and *surgeons*.

SVP Range — 8.0 and above

A detailed technical report on the development of Job Zones, "Stratifying Occupational Units by Specific Vocational Preparation (SVP)," is provided in the O*NET Data Dictionary. Contact the National O*NET Consortium for information on the availablility of this report. See page one of this User's Guide for contact information.

Chapter Sixteen: Samples of Reports

There are a number of reports available in the O*NET 98 Viewer. To give you an overview, a portion of the initial page of each type of report is reproduced here. You may wish to print out each of these reports to familiarize yourself with the functioning of the O*NET 98 Viewer. All reports can be previewed on screen.

O*NET 98	O*NET The Occupational information Network	
O*NET Code	Title	Page 1 of 28
13002A	Treasurers, Controllers, and Chief Financial Officers	
13002B	Financial Managers, Branch or Department	
13005A	Human Resources Managers	
13005B	Training and Development Managers	
13005C	Labor Relations Managers	
13005E	Employee Assistance Specialists	
13008	Purchasing Managers	
13011A	Advertising and Promotions Managers	
13011B	Sales Managers	
13011 C	Marketing Managers	
13011 D	Fundraising Directors	
13014A	Property Officers and Contract Administrators	

"All Occupations by Codes" from Search Menu, Reports

O*NET 98 Occupations by Title



07544	
97514 Able	Seamen
21114A Acco	untants
34056A Acto	rs and Performers
25313 Actu	aries
28105 Adju	dicators, Hearings Officers, and Judicial Reviewers
53123 Adju	stment Clerks
13014B Adm	inistrative Services Managers
13011A Adv	ertising and Promotions Managers
53908 Adv	ertising Clerks
97923B Aeri	al Tram Tenders
22599 C Aero	space Engineering Technicians
22102 Aero	space Engineers
39999B Agei	nts and Business Managers of Artists, Performers, and Athletes
79999K Agri	cultural Crop Farm Managers

"All Occupations by Titles" from Search Menu, Reports

O*NET 98 Occupational Description



P	ad	e	1	of	1

21511E Personnel Recruiters

Description Seek out, interview, and screen applicants to fill existing and future job openings and promote career opportunities within an organization.

Tasks

- 1. Interviews applicants to obtain work history, training, education, job skills, and other background information.
- 2. Provides potential applicants with information regarding facilities, operations, benefits, and job or career opportunities in organization.
- 3. Conducts reference and background checks on applicants.
- 4. Contacts college representatives to arrange for and schedule on-campus interviews with students.
- 5. Reviews and evaluates applicant qualifications or eligibility for specified licensing, according to established guidelines and designated licensing codes.

"Current Occupation" from Search Menu, Reports defines the selected occupation and lists tasks.

O*NET 98 Occupations (Title, Code & Definition)



Code Title Page 1 of 71

97514 Able Seamen

Stand watch at bowor on wing of bridge to look for obstructions in path of vessel. Measure water depth. Turn wheel on bridge or use emergency equipment as directed by mate. Break out, rig, overhaul, and store cargo-handling gear, stationary rigging, and running gear. Chip rust from and paint deck or ship's structure. Must hold government-issued certification. Must hold certification when working aboard liquid-carrying vessels.

21114A Accountants

Analyze financial information and prepare financial reports to determine or maintain record of assets, liabilities, profit and loss, tax liability, or other financial activities within an organization. Exclude auditors.

34056A Actors and Performers

Perform dramatic roles, comedic routines, or tricks of illusion to entertain audiences.

25313 Actuaries

Apply knowledge of mathematics, probability, statistics, and principles of finance and business to problems in life, health, social, and casualty insurance, annuities, and pensions.

28105 Adjudicators, Hearings Officers, and Judicial Reviewers

Conduct hearings to review and decide claims filed by the government against individuals or organizations, or individual eligibility issues concerning social programs, disability, or unemployment benefits. Determine the existence and the amount of liability, recommend the acceptance or rejection of dains, or compromise settlements according to laws, regulations, policies, and precedent decisions. Confer with persons or organizations involved and prepare written decisions.

53123 Adjustment Clerks

Investigate and resolve customers' inquiries concerning merchandise, service, billing, or credit rating. Examine pertinent information to determine accuracy of customers' complaints and responsibility for errors. Notify customers and appropriate personnel of findings, adjustments, and recommendations, such as exchange of merchandise, refund of money, credit to customers' accounts, or adjustment to customers' bills.

13014B Administrative Services Managers

Plan, direct, and coordinate supportive services of an organization, such as recordkeeping, mail distribution, telephone reception, and other office support services. May oversee facilities planning, maintenance, and custodial operations. Include facilities managers. Exclude procurement managers.

13011A Advertising and Promotions Managers

Plan and direct advertising policies and programs to create or promote interest in a product or service for a department, an entire organization, or on an account basis.

53908 Advertising Clerks

Receive orders for classified advertising in a newspaper or magazine from customers in person or by telephone. Examine and mark classified advertisements according to copy sheet specifications to guide composing room in assembling type. Verify conformance of published advertisements to specifications for billing purposes.

97923B Aerial Tram Tenders

Tend aerial tramways to convey refuse, coal, ore, or other materials from plant or mine.

22599C Aerospace Engineering Technicians

Operate, install, calibrate, and maintain integrated computer/communications systems consoles, simulators, and other data acquisition, test, and measurement instrument equipment to launch, track, position, and evaluate air and space vehicles. May record and interpret test data. May fabricate, assemble, and test aircraft parts and mechanisms in laboratory.

22102 Aerospace Engineers

Perform a variety of engineering work in designing, constructing, and testing aircraft, missiles, and spacecraft. May conduct basic and applied research to evaluate adaptability of materials and equipment to aircraft design and manufacture. May recommend improvements in testing equipment and techniques. Include aeronautical and astronautical engineers.

"All Occupations by Title, Code & Definition" from Search Menu, Reports

BLS EMPLOYMENT PROJECTIONS 1996-2006



Summary



Page 1 of 3

Projections for the American work force from 1996 to 2006 were issued by the Bureau of Labor Statistics, U.S. Department of Labor, in November 1997. These projections provide information on where future job growth is expected by industry and occupation and what the demographic makeup of the work force pursuing those jobs is likely to be.

These 10-year projections of economic growth, the labor force, and employment by industry and occupation are widely used for studying long- range economic and employment trends, planning education and training programs, and developing career information.

The report below is a BLS summary of the projections by industry and occupation. Detailed data for occupations appears in the O*NET 98 Viewer Occupational Profiles.

Labor force

The supply of workers, the labor force, is projected to increase by 15 million over the 1996-2006 period, from 134 million to 149 million. This represents an increase of 11 percent, less than the 14 percent increase over the previous 10-year period, 1986-96. The projections indicate that the demographic composition of the labor force is expected to change because the population itself will change and because work force participation will change.

"Bureau of Labor Statistics Employment Projections" from Search Menu, More Information

O*NET 98 Vendor Enhancements



Page 1 of 1

A beta version of O*NET 98 was made available to software developers in 1997. This limited release enabled developers to become familiar with the O*NET database structure and content, and begin building occupational and career information applications based on O*NET data.

Developers are expected to enhance the "core" O*NET database and produce value-added applications supporting diverse human resource development and management needs. These applications may be used to:

- *Align educational and job training curricula with current workplace needs
- *Create occupational clusters based on skills, knowledges, and job tasks
- * Identify and analyze transferable skills
- * Develop resumes, job orders, and descriptions of personnel positions
- * Develop career counseling tools

"Vendor Enhancements Report" from Search Menu, More Information

UNPUBLISHED DOT OCCUPATIONS



Page 1 of 4

Occupational analysis conducted subsequent to the last publication of the Dictionary of Occupational Titles resulted in the development of descriptions and codes for 23 occupations not appearing in the DOT Fourth Edition, Revised 1991. These occupations were used, along with all other DOT occupations, in the development of O*NET occupations and ratings. In O*NET 98, these DOT occupations are crosswalked to O*NET occupations. They are not, however, linked to occupations in the other seven classification systems included in the Viewer. Full descriptions and underlying data for these occupations are available from the National O*NET Consortium. See About the O*NET 98 Viewer Help file for contact information.

The unpublished DOT codes and titles, and related O*NET codes and titles are:

019.062-010 GEOGRAPHIC INFORMATION SYSTEM SPECIALIST (profess. & kin.)

O*NET: 25103B Geographic Information Systems Specialists

029.261-030 MICROSCOPIST, ASBESTOS (business ser.) O*NET: 24505E Environmental Science Technicians

031.167-018 TELECOMMUNICATIONS SPECIALIST (profess. & kin.)

O*NET: 22126B Electronics Engineers, except Computer

076.224-018 MOVEMENT THERAPIST (medical ser.)

O*NET: 32311B Corrective Therapists

078.367-014 SPECIMEN PROCESSOR (medical ser.)
O*NET: 32905 Medical and Clinical Laboratory Technicians

079.262-010 UTILIZATION-REVIEW COORDINATOR (profess. & kin.)*

O*NET: 32996A Health Service Coordinators

079.262-014 MEDICAL RECORD CODER (medical ser.)

O*NET: 32911 Medical Records Technicians

094.224-022 EMPLOYMENT TRAINING SPECIALIST (social ser.)

O*NET: 31514 Vocational and Educational Counselors

162.117-034 MEDIA BUYER (business ser.) O*NET: 13011C Marketing Managers

164.117-022 MEDIA PLANNER (business ser.)

O*NET: 13011A Advertising and Promotions Managers

"Unpublished Dictionary of Occupational Titles Occupations" from Search Menu, More Information shows unpublished DOT codes/titles and their related O*NET OU codes/titles.

BAT Apprenticeable Occupations



apprenticeship (in hours), applicable DOT code, and crosswalked O*NET code and title, if any,



The occupations in this report are listed by the Bureau of Apprenticeship and Training (BAT) Bulletin 97-02 as officially recognized apprenticeable occupations. The report shows the AIMS (Apprenticeship Information Management System) code and apprenticeable occupation title. Also provided is information on minimum term of

BAT apprenticeable occupations are based on DOT Codes and titles which are then crosswalked to O*NET codes and titles. The corresponding O*NET occupation may be broader in scope.

A* following the DOT code indicates an unofficial, temporary DOT code issued under the Occupational Code Request (OCR) program. Initial O*NET research has related these codes to O*NET occupations. However, their appearance here does not indicate official approval of the DOT title or code.

A ** following the DOT code indicates an OCR or DOT occupation which is linked to an "All Other..." O*NET occupation for which no data is included in the O*NET 98 analyst database. These occupations do not appear in this version of the O*NET 98 viewer.

Page 1 of 45

			-
AIMS Code	Title	Min. Term (Hours)	DOT Code
0860	ACCORDION MAKER O*NET Occupation: 89397A Custom Precision	8000 n Woodworkers, Musical Instrur	730281010 nents
0861	ACOUSTICAL CARPENTER O*NET Occupation: 87105 Ceiling Tile Installe	8000 ers and Acoustical Carpenters	860381010
0862	ACTOR O*NET Occupation: 34056A Actors and Perfor	4000 rmers	150047010
0703	AGRICULTURAL SERVICE WORKER O*NET Occupation: 79036 Sprayers/Applicate	4000 ors	408381560*
0990	AIR & HYDRONIC BALAN TECH O*NET Occupation: 85902A Heating and Air C	6000 Conditioning Mechanics	637261034
0686	AIR-COND MECH (auto serv) O*NET Occupation: 85302B Automotive Spec	2000 iatty Technicians	620281010
0002	AIR-COND INSTALLER WINDOW O*NET Occupation: 85711A Electric Home Ag	6000 opliance and Power Tool Repair	637261010 rers
0865	AIRCRAFT MECH, ARMAMENT O*NET Occupation: 93102C Aircraft Systems	8000 Assemblers, Precision	806361030
0003	AIRCRAFT MECH,ELECTRICAL O*NET Occupation: 85728A Aircraft Electricia	8000 ns	825381010
0866	AIRCRAFT MECH,PLUMB & HYDRA O*NET Occupation: 93102C Aircraft Systems	8000 Assemblers, Precision	806381066

"Bureau of Apprenticeship & Training report on BAT Apprenticeable Occupations," from Search Menu, More Information shows each occupation's minimum term of apprenticeship in hours.

O*NET 98 Related Occupations



Page 1 of 1

Wine Stewards/Stewardesses (65008B)

Select, requisition, store, and serve wines in restaurant. Assist patrons in making wine selections to accompany meals. Replenish stock and maintain storage conditions for wine inventory.

Code Title

49017 Counter and Rental Clerks

Receive orders for services, such as rentals, repairs, dry cleaning, and storage. May compute cost and accept payment.

65005 Bartenders

Mix and serve to patrons alcoholic and nonalcoholic drinks following standard recipes.

65041 Combined Food Preparation and Service Workers

Perform duties which combine both food preparation and food service. Workers who spend more than 80 percent of their time in one job are classified in that occupation.

65008A Waiters/Waitresses

Take food orders and serve food and beverages to patrons in dining establishments.

49023A Cashiers, General

Receive payments, issue receipts, handle credit transactions, account for the amounts received, and perform related clerical duties in a wide variety of business establishments.

69999B Personal Attendants

Perform a variety of personal services such as arranging for or providing valet services, issuing locker room supplies, or checking hats and coats for customers in club, restaurant, recreational facility, hotel, or other hospitality establishment.

49999A Merchandise Appraisers and Auctioneers

Appraise and estimate value of items, such as paintings, antiques, jewelry, cameras, musical instruments, machinery, and fixtures for loan, insurance, or sale purposes. May sell merchandise at auction.

49999C Sales Consultants

Select, recommend, or purchase merchandise or services for customers shopping either in person or by telephone at department or specialty stores. Include personal shoppers and wedding consultants.

85305D Automotive Body Repair Estimators

Estimate cost of repairing damaged automobile and truck bodies.

49021 Stock Clerks, Sales Floor

Receive, store, and issue sales floor merchandise. Stock shelves, racks, cases, bins, and tables with merchandise and arrange merchandise displays to attract customers. May periodically take physical count of stock or check and mark merchandise.

Related Occupations Provided by North Carolina Occupational Analysis Field Center

"Related Occupations" from Search Menu, Titles/Codes, Related Occupations [with Wine Stewards selected], Report displays occupations related to the selected OU.

O*NET Occupational Profile

Page 2 of 10

O*NET Occupational Profile: Worker Characteristics

Personnel Recruiters (21511E)

Abilities

Some of the important abilities for Personnel Recruiters include:

- Oral Comprehension -- The ability to listen to and understand information and ideas presented through spoken words and sentences
- Oral Expression -- The ability to communicate information and ideas in speaking so others will understand
- Written Comprehension -- The ability to read and understand information and ideas presented in writing
- Speech Clarity -- The at
- Written Expression -- T understand

Interests

The primary interests of r

- Enterprising -- People w and carrying out project and making decisions. I thinking.
- Social -- People with So things, objects, machine work with their hands. T people.

Work Values

Some of the work values include:

- Support--look for jobs who comfortable with manage for competent, considerate
- Achievement--look for jo the results of your efforts

Employment Outlook:

Separate employment figures for Personnel Recruiters are not available. However, this occupation is included in the larger group of "Personnel, Training, and Labor Relations Specialists." In 1996, Employment in the United States for this occupation was 328,000, of which 15,000 were self-employed.

It is projected that by the year 2006 employment in this occupation will grow by 17.9%, an increase of 59.000 positions. In addition 94.000 openings (29% of current positions) will become available due to employee tumover.

Earnings:

National median annual wages for similar OES Occupations are as follows: \$34,611 Personnel, Training, and Labor Relations Specialists



Employment projections supplied by Bureau of Labor Statistics (BLS)

Earnings Data Supplied by America's Labor Market Information System (ALMIS)



"Occupational Profile" from Search Menu, Titles/Codes, Profile, Report gives you a multi-page look at any selected occupation. The two excerpts on this page show Worker Characteristics and the Occupational Outlook for Personnel Recruiters.

O*NET Occupational Profile



Personnel Recruiters (21:

Seek out, interview, and screen opportunities within an organizat

O*NET Content

- 1. Worker Characteristic
- 2. Worker Requirements
- 3. Experience Requirem
- 4. Occupation Requirem
- 5. Occupation Specific I
- 6. Occupation Characte
- 7. Related Occupations

O*NET 98 Occupational Profile: Related Occupations

Personnel Recruiters (21511E)

Some occupations related to Personnel Recruiters include:

Code Title

21505 Special Agents, Insurance

Recruit independent insurance sales agents in field and maintain contact between them a office. Advise agents on matters pertaining to conduct of business such as cancellations, accounts, technical problems, claims procedures, new business contacts, and new produgather information for underwriter.

21508 Employment Interviewers, Private or Public Employment Service

Interview job applicants in employment office and refer them to prospective employers for consideration. Search application files, notify selected applicants of job openings, and refe applicants to prospective employers. Contact employers to verify referral results. Record a various pertinent data.

21511B Employer Relations and Job Development Specialists

Develop relationships with employers to facilitate placement of job applicants or students i employment opportunities.

21511C Employee Relations Specialists

Perform a variety of duties and promoting employee h

34056J Talent Directors Audition and interview perfo or motion picture productio

61099D Janitorial Supervi Supervise work activities of duties, inspect work, and in May purchase janitorial sup employees, and recommen educational institutions, and

43011 Appraisers, Real Appraise real property to de purposes.

19999A Amusement and

O*NET Occupational Profile: Occupation-Specific Infon

Personnel Recruiters (21511E)

Some of the important occupation-specific tasks Personnel Recruiters include:

- Interviews applicants to obtain work history, training, education, job skills, and information.
- Provides potential applicants with information regarding facilities, operations, because opportunities in organization.
- Conducts reference and background checks on applicants.
- Contacts college representatives to arrange for and schedule on-campus interstudents.
- Reviews and evaluates applicant qualifications or eligibility for specified licensi established guidelines and designated licensing codes.
- Notifies applicants by mail or telephone to inform them of employment possibi consideration, and selection.
- Hires or refers applicant to other hiring personnel in organization.
- * Arranges for interviews and travel and lodging for selected applicants at comp

Three more pages from the Profile Report

O*NET Occupational Profile: Worker Requirements

Personnel Recruiters (21511E)

Skills

Some of the important skills for Personnel Recruiters include:

- Speaking -- Talking to others to effectively convey information
- Active Listening -- Listening to what other people are saying and asking questions a
- Information Gathering -- Knowing how to find information and identifying essential in
- Reading Comprehension -- Understanding written sentences and paragraphs in wo documents
- Judgment and Decision Making -- Weighing the relative costs and benefits of a pote
- Management of Personnel Resources -- Motivating, developing, and directing peop work, identifying the best people for the job
- Idea Generation -- Generating a number of different approaches to problems
- Coordination -- Adjusting actions in relation to others' actions
- Writing -- Communicating effectively with others in writing as indicated by the needs audience

Knowledges

Some of the important knowledges for Personnel Recruiters include:

Personnel and Human Resources -- Knowledge of policies and practices involved in personnel/human resource functions. This includes recruitment, selection, training, promotion regulations and procedures; compensation and benefits packages; labor negotiation strategies; and personnel information systems

Instructional Programs

Examples of instructional programs needed to become Personnel Recruite

 EDUCATION, GENERAL: An instructional program that generally describes the thec practice of learning and teaching; the basic principles of educational psychology; the teaching; the planning and administration of educational activities; and the social fou

[&]quot;Worker Requirements" is also part of the Profile Report.

O*NET Occupational Profile: Occupation Requirements

Personnel Recruiters (21511E)

Generalized Work Activities

Some of the important generalized work activities Personnel Recruiters may perfor include:

- Staffing Organizational Units -- Recruiting, interviewing, selecting, hiring, and promoting person for the organization.
- Judging Qualities of Things, Srvc., People -- Making judgments about or assessing the value, importance, or quality of things or people.
- Communicating With Persons Outside Org. -- Communicating with persons outside the
 organization, representing the organization to customers, the public, government, and other
 external sources. This information can be exchanged face-to-face, in writing, or via
 telephone/electronic transfer.
- Getting Information Needed to Do the Job -- Observing, receiving, and otherwise obtaining information from all relevant sources.
- Communicating With Other Workers -- Providing information to supervisors, fellow workers, an subordinates. This information can be exchanged face-to-face, in writing, or via telephone/t
- Identifying or categori:

O*NET Occupational Profile: Experience Requirements

Personnel Recruiters (21511E)

Job Zone

To help you understand how much preparation is needed to perform this it has been placed into one of five Job Zones. A Job Zone summarizes experience, education and training usually required for an occupation.

Personnel Recruiters:

Job Zone Three: Moderate Preparation Needed

Overall Experience Previous work-related skill, knowledge, or experience i

these occupations. For example, an electrician must he three or four years of apprenticeship or several years of training, and often must have passed a licensing exam

perform the job.

Education Most occupations in this zone require training in vocation

related on-the-job experience, or an associate's degree

require a bachelor's degree.

"Generalized
Work Activities"
and "Job Zone"
information
complete the
Profile Report.

O*NET 98 Skills Search - Skill Selection List

Following are the skills you have chosen to focus on for this O*NET 98 Skills Search:



Page 1 of 1

CONTENT

- Science
- Using scientific methods to solve problems
- Reading Comprehension
 Understanding written sentences and paragraphs in work related documents

PROCESS

★ Monitoring

Assessing how well one is doing when learning or doing something

RESOURCE MANAGEMENT SKILLS

* Management of Financial Resources

Determining howm oney will be spent to get the work done, and accounting for these expenditures

"Skills Search — Skill Selection List" from Search Menu,

Skills, [build a skill list], Review Skill List, Report

	T 98 Skills Search Results
Code	Title
22121	Civil Engineers, Including Traffic Perform engineering dulies in planning, designing, and overseeing construction and maintenance of structures and facilities such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipellines, power plants, vater and sewage systems, and waste disposal units. Include traffic engineers who specialize in studying whicular and pedestrain traffic conditions.
34038B	Commercial and Industrial Designers Develop and design manufactured products, such as care, home appliances, and children's toys. Combine artistic talent with research on product use, marketing, and materials, to create the most functional and appealing product design.
21908A	Construction and Building Inspectors
	Inspect structures to determine structural soundness and compliance with specifications, building codes, and other regulations. Inspections may be general in nature or may be limited to a specific area, such as electrical systems or plumbing.
32521	Dietitians and Nutritionists
	Organize, plan, and conduct food service or nutritional programs to assist in promotion of health and control of disease. May administer activities of department providing quantity food service. May plan, organize, and conduct programs in untititional research.
13017A	Engineering Managers Plan, direct, and coordinate work in engineering fields, spending a majority of time performing managerial work for
	which a background consistent with that described for engineers is required.
24302A	Foresters
	Plan, develop, and control environmental factors affecting forests and forest resources for economic and recreation purposes.
22308	Landscape Architects
	Plan and design landscape for public and private grounds and land areas to maximize utility and aesthetic appeal.
22108	Mining Engineers, Including Mine Safety
	Determine the location and plan the extraction of cost, metaltic ores, nometallic minerals, and building materials, auch as stone and gravel. Work involves conducting preliminary surveys of deposts or undeveloped mines and surveys of deposts or undeveloped mines and making geological and topographical surveys, evolving methods of mining best suited to character, type, and size of deposts, and supervising mining operations.
61002A	Municipal Fire Fighting and Prevention Supervisors Supervise fire fighters who control and extinguish municipal fires, protect life and property, and conduct rescue efforts.
13017B	Natural Sciences Managers Plan, direct, and coordinate work in life and physical sciences, spending a majority of time performing managerial work for which a background consistent with that described for life or physical scientists is required.
15008A	Nursing Directors Plan, direct, and coordinate facilities or programs providing nursing care or instructional programs related to nursing.
22311B	Surveyors
	Make exact measurements and determine property boundaries. Provide data relevant to the shape, contour, gravitation, location, elevation, or dimension of land or land features on or near the earth's surface for engineering.

"Skills Search Results" from Search Menu, Skills [build a skill list], [run the search]. Report prints out definitions of occupations that match the user's Skill Selection List.

O*NET 98 Skills Search



Occupational Skills Detail Report

Selected Occupation:

22121 Civil Engineers, Including Traffic

Perform engineering duties in planning, designing, and overseeing construction and maintenance of structures and facilities such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power plants, water and sewage systems, and waste disposal units. Include traffic engineers who specialize in studying vehicular and pedestrian traffic conditions.

Page 1 of 2

Skill	Importance	Level of Skill
kills in your Skill List that are important for	this accumption:	
Reading Comprehension	85	Average
Science	75	Average
Monitoring	65	Average
Management of Financial Resources	60	Average
mportant Skills for this occupation that are	NOT in your Skil	IList:
Mathematics	90	High
Operations Analysis	85	High
Implementation Planning	85	High
Information Gathering	80	Average
Critical Thinking	80	Average
Writing	80	Average
Problem Identification	80	Average
Speaking	75	Average
Judgment and Decision Making	75	Average
Product Inspection	75	Average
Active Listening	70	Average
Idea Evaluation	70	Average
Identification of Key Causes	70	Average
Identifying Downstream Consequences	70	Average
Solution Appraisal	65	Average
Systems Evaluation	65	Average
Idea Generation	65	Average
Active Learning	65	Average
Visioning	65	Average
Coordination	65	Average

"Occupational Skills Detail Report" from Search Menu, Skills [build a skill list], [run the search], Important Skills for Occupation, Report. This illustration shows a portion of the detail about a single selected occupation [Civil Engineers]. Note that this report quantifies the Importance of the four skills on the searcher's list. The Detail Report also points out what additional skills are important. Three of these additional skills actually require High levels of ability. Compare this report with the following one.

Occupational Skills Detail Report

Selected Occupation:

21908A Construction and Building Inspectors

Inspect structures to determine structural soundness and compliance with specifications, building codes, and other regulations. Inspections may be general in nature or may be limited to a specific area, such as electrical systems or plumbing.

Page 1 of 2

Skill	Importance	Level of Skill
Skills in your Skill List that are important for	r this occupation:	
Reading Comprehension	79	Average
Management of Financial Resources	75	Average
Monitoring	67	Average
Science	67	Low
Important Skills for this occupation that are	NOT in your Skil	IList:
Product Inspection	100	Average
Problem Identification	96	Average
Judgment and Decision Making	92	Average
Writing	88	Average
Identification of Key Causes	88	Average
Speaking	83	Average
Active Listening	83	Average
Critical Thinking	83	Average
Testing	83	Average
Information Gathering	83	Average
Mathematics	79	Average
Systems Evaluation	79	Average
Information Organization	71	Low
Active Learning	67	Average
Idea Evaluation	67	Average
Systems Perception	67	Low
Solution Appraisal	63	Low
Identifying Downstream Consequences	58	Low
Visioning	58	Low
Operations Analysis	58	Low
Persuasion	58	Low

Another "Occupational Skills Detail Report," this one for Construction and Building Inspectors. Contrast this report with the previous one using the same Skills List. The values for Importance are slightly lower for the four skills in the Selection List. However, the Importance of some skills not included in the search is quite significant to potential job success, even though only Average levels of those skills are required.

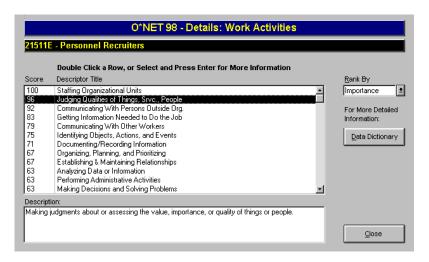
O*NET 98 Crosswalks



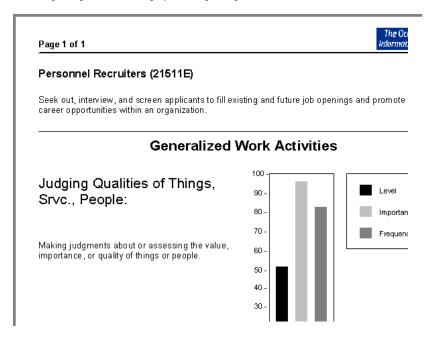
Personnel Recruiters (21511E)

Code		C	rossv	valk Title	Page 1 of 2		
Crosswalk: CEN		19	990 C	ensus Occupations			
027		Р	erson	nel, Training, and Labor Relations Specialists			
Crosswalk: CIP		CI	lassifi	cation of Instructional Programs			
130101		Е	ducati	on, General			
130401		Е	ducati	on Administration and Supervision, General			
130405		El	emen	tary, Middle and Secondary Education Administration			
130601		Е	ducati	onal Evaluation and Research			
130603		E	ducati	onal Statistics and Research Methods			
130604		Е	ducati	onal Assessment, Testing and Measurement			
521001		Н	Human Resources Management				
Crosswalk: D	от	Di	ictiona	ary of Occupational Titles			
0991670	010	С	ertifica	ation and Selection Specialist			
2U53b7L	J5U	Su	pervis	or, Contingents			
1662670	126	Re	cruite	r			
1662670	38	Pe	rsonn	el Recruiter			
Crosswalk: G	0 E	Gu	ide fo	r Occupational Exploration			
110304		So	cial R	esearch: Occupational			
Crosswalk: M	oc	Mil	litary (Occupational Codes			
1. MO0 2. Serv 3. Enlis	C (Mil rice E sted/(Leve	itary Iranc Office	Occup h (A = er (E =	Military Occupations are the following: ation Code) Army, C = Coast Guard, F = Air Force, M = Marine Corps, N = Navy) Enlisted, O = Commissioned Officer, W = Warrant Officer) ade Range			
79R	Α	Е	3-5	Recruiter			
79S	Α	Е	3-5	Care er Counselor			
00 Z	Α	Е	5	Command Sergeant Major			
JF	С	Е	4-9	Personnel-Recruiter			

"Crosswalks" from Activity Menu, View Crosswalks, [select a specific occupation], Report. No matter what Crosswalk is being visually inspected, Report prints the complete list of matches from all classification schemes. Please note: this Crosswalks report is not available when Crosswalks is used from the Search Menu.

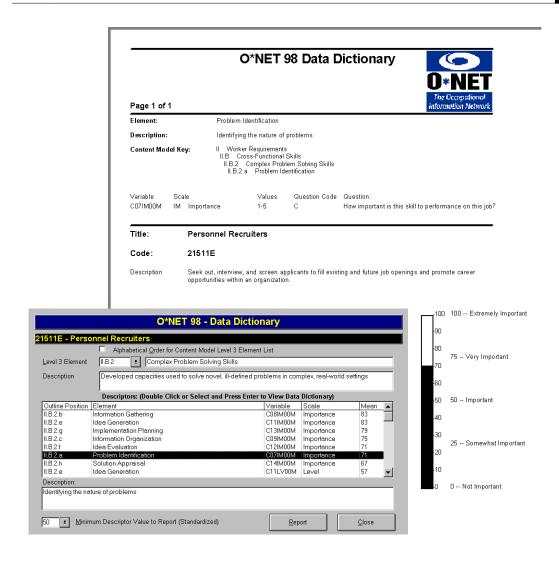


Details: Work Activities screen, from Search Menu, Titles/Codes [Personnel Recruiters selected], Details, Work Activities. Double-clicking any highlighted descriptor takes you to a screen where "Report" prints the simplified Graph Report shown below.



O*NET 98 - Details Page 1 of 3 Information Network Title: Personnel Recruiters Code: 21511E Definition: Seek out, interview, and screen applicants to fill existing and future job openings and promote career opportunities within an organization. Element: Judging Qualities of Things, Srvc., People Description: Making judgments about or assessing the value, importance, or quality of things or people Scale: Level Question: What level of this activity is needed to perform this job? Value: 52 Making very difficult judgments about the quality 92 -- Trying to establish the value of a recently discovered or importance of things or people for which there ancient art work. Determining the importance of a new is limited guidance or supporting information. mental health delivery program to the residents of a major 80 70 -60 57 -- Determining the value of property lost in a fire. Judging the importance of a news story and where it should be located in a newspaper. 40 -30 21 -- Determining whether to remove a tree that has been damaged. Judging the quality of writing paper. -10 Making easy judgments about the quality or importance of things or people when there are a lot of guidelines.

From the Graph Report screen discussed on the previous page, pressing "Detailed Report" will produce a multi-page report showing detailed information on each descriptor. (A similar report is available from Data Dictionary, and is discussed on the following pages. The Data Dictionary is accessible at the Expert User level.)



Here is a typical screen from the Data Dictionary option available to Expert Users. When a highlighted descriptor is double-clicked, the "Individual Descriptor Detail Report" shown here is produced. Data Dictionary Detail Reports show both standardized (1-100) variable values and the value on each question's original scale.

O*NET 98 Significant Content Model Descriptors

(Standardized Threshold: 50)

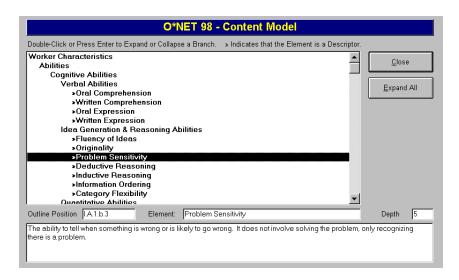


Personnel Recruiters (21511E)

Pan	- 4	 67

			Page 1 of 7			
Var Name	OutlinePosition	Description	Scale	Value		
I.A.1	Cognitive Abilities					
	Abilities that influence the acquisition and application of knowledge in problem solving					
A01IM00M	I.A.1.a.1	Oral Comprehension	IM	90		
A03IM00M	I.A.1.a.3	Oral Expression	IM	85		
A02IM00M	I.A.1.a.2	Written Comprehension	IM	80		
A04IM00M	I.A.1.a.4	Written Expression	IM	70		
A12IM00M	I.A.1.c.1	Mathematical Reasoning	IM	65		
A03LV00M	I.A.1.a.3	Oral Expression	LV	60		
A04LV00M	I.A.1.a.4	Written Expression	LV	57		
A02LV00M	I.A.1.a.2	Written Comprehension	LV	57		
A13IM00M	I.A.1.c.2	Number Facility	IM	55		
A01LV00M	I.A.1.a.1	Oral Comprehension	LV	54		
A13LV00M	I.A.1.c.2	Number Facility	LV	51		
I.A.4	Sensory Abilities					
	Abilities that influer	nce visual, auditory and speech perceptio	n			
A52IM00M	I.A.4.b.5	Speech Clarity	IM	80		
A41IM00M	I.A.4.a.1	Near Vision	IM	60		
A52LV00M	I.A.4.b.5	Speech Clarity	LV	57		
A51IM00M	I.A.4.b.4	Speech Recognition	IM	55		
A41LV00M	I.A.4.a.1	Near Vision	LV	51		
A49IM00M	I.A.4.b.2	Auditory Attention	IM	50		
LB.1	Occupational Intere	ests				
	personality types a	est Profile (OIP) Classification: based on nd work environments. Six interest categ	ories are used to describe			
	Conventional. Eac characteristic each profiles have been high-point profile c	upations: Realistic, Investigative, Artistic, h OIP consists of six numerical scores ind work environment (or interest area) is for assigned indicating which interests are n posists of one to three interest codes, dep minimum degree of descriptiveness.	dicating how descriptive ar each OU. In addition, hig nost characteristic of an OU	h-point J. Each		
1050100M	Conventional. Eac characteristic each profiles have been high-point profile c	h OIP consists of six numerical scores ind work environment (or interest area) is for assigned indicating which interests are m onsists of one to three interest codes, dep	dicating how descriptive ar each OU. In addition, hig nost characteristic of an OU	h-point J. Each		

From the Data Dictionary screen shown on the previous page, the Viewer opens to a screen where Report can print a full list of "Significant Content Model Descriptors" for the selected occupation [Personnel Recruiters]. With the report threshold value set at 50, only descriptors rated 50 and above will be printed. The on-screen Data Dictionary display shows all descriptors for the selected occupation.



Content Model screen, from Activity Menu, Content Model, Worker Characteristics, with "Expand All" option chosen reveals the hierarchical structure of the data in O*NET. As yet, the Content Model does not offer printed reports, but it will help you understand the way O*NET data is organized. Outline Position refers to the level in the Data Dictionary. To understand the Data Dictionary, you may wish to read the Content Model Report and look at the printed Data Dictionary. Contact the National O*NET Consortium for information on availability of these reports. Please see page one of this User's Guide for contact information.

Section V. Reference Information for Expert Users

Chapter Seventeen: Data Dictionary

· How the Data Dictionary Is Organized

The Data Dictionary is intended for technical users only, as the information presented is quite technical in nature. Using the Data Dictionary available from the Activity Menu, you can see complete detail for each of 483 variables (or "elements") whose data is included in the current version of the database.

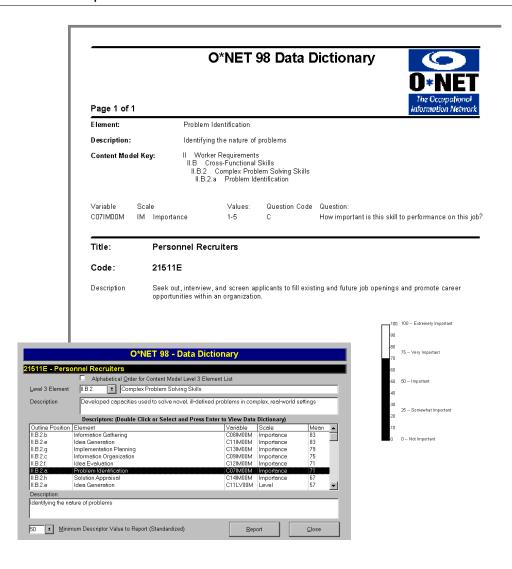
The descriptors are grouped at Level 3 of the Content Model hierarchy. This level was chosen as a reasonably-sized grouping of a set of descriptors. Within each group, the descriptors are presented *in descending order of mean value* for the selected occupation.

- I. Level One Domains "Worker Characteristics, etc."
- I.A. Level Two Sub-Domains "Abilities, Interests, Work Values, etc."
- I.A.1. Level Three Descriptor Categories "Cognitive Abilities, etc."

The Data Dictionary opens with Cognitive Abilities (outline position I.A.1). You can select a different Level 3 descriptor category by clicking the drop-down Level 3 Element list. This list is presented in Content Model outline position order. You can change to alphabetical order by checking the "Alphabetical Order..." checkbox.

The box below the Level 3 descriptor selection displays the selection's text definition.

The list box in the center of the screen shows each descriptor's Content Model outline position, the descriptor element name, the variable name, the scale name, and the mean value for the selected occupation.



Here is a typical screen from the Data Dictionary option available to Expert Users.

When a highlighted descriptor is double-clicked, the "Individual Descriptor Detail
Report" shown here is produced. Data Dictionary Detail Reports show both standardized (1-100) variable values and the value on each question's original scale.

O*NET 98 Significant Content Model Descriptors (Standardized Threshold: 50)



rersonne	l Recruiters (21	1511E)		
			P	age 1 of 7
Var Name	OutlinePosition	Description	Scale	Value
I.A.1	Cognitive Abilities			
	Abilities that influer	nce the acquisition and application of kno	wledge in problem solving	
A01IM00M	I.A.1.a.1	Oral Comprehension	IM	91
A03IM00M	I.A.1.a.3	Oral Expression	IM	8
A02IM00M	I.A.1.a.2	Written Comprehension	IM	8
A 0 4 I M O 0 M	I.A.1.a.4	Written Expression	IM	7
A12IM00M	I.A.1.c.1	Mathematical Reasoning	IM	6:
A03LV00M	I.A.1.a.3	Oral Expression	LV	61
A04LV00M	I.A.1.a.4	Written Expression	LV	5
A02LV00M	I.A.1.a.2	Written Comprehension	LV	5
A13IM00M	I.A.1.c.2	Number Facility	IM	5:
A01LV00M	I.A.1.a.1	Oral Comprehension	LV	5
A13LV00M	I.A.1.c.2	Number Facility	LV	5
I.A.4	Sensory Abilities			
	Abilities that influer	nce visual, auditory and speech perception	on	
A52IM00M	I.A.4.b.5	Speech Clarity	IM	8
A41IM00M	I.A.4.a.1	Near Vision	IM	6
A52LV00M	I.A.4.b.5	Speech Clarity	LV	5
A51IM00M	I.A.4.b.4	Speech Recognition	IM	5
A41LV00M	I.A.4.a.1	Near Vision	LV	5
A49IM00M	I.A.4.b.2	Auditory Attention	IM	5
I.B.1	Occupational Intere	ests		
	Occupational Intere personality types a environment of occ Conventional. Eac	est Profile (OIP) Classification: based on nd work environments. Six interest categ upations: Realistic, Investigative, Artistic h OIP consists of six numerical scores in work environment (or interest area) is fo	gories are used to describe s, Social, Enterprising, and dicating how descriptive an r each OU. In addition, high	the work d
	profiles have been high-point profile c	assigned indicating which interests are r onsists of one to three interest codes, de minimum degree of descriptiveness.		
1050100M	profiles have been high-point profile c	assigned indicating which interests are n onsists of one to three interest codes, de		

From the Data Dictionary screen shown on the previous page, the Viewer opens to a screen where Report can print a full list of "Significant Content Model Descriptors" for the selected occupation [Personnel Recruiters]. With the report threshold value set at 50, only descriptors rated 50 and above will be printed. The on-screen Data Dictionary display shows all descriptors for the selected occupation.

By default, values are presented in standardized (0-100) format. In either the Search or Activity Menus, you can use the Settings dialog box to switch to Original Scales if desired. With original scales, each scale may have a different range. For example, Importance ranges from one to five, while Level ranges from zero to seven. Thus, a value of 50 would be displayed as 3.0 for an Importance descriptor, while it would be displayed as 3.5 for a Level descriptor.

Within each category the descriptors are displayed in descending order of values for the selected occupation. If you are using Original Scales, it may appear the descriptors are missorted because the *sort order is determined by the standardized scales*.

To really make sense of scale values, it is essential to view the scale anchors (descriptions of the significance of certain numeric values on the scale). To do this you can double-click a descriptor in the list box to view the Data Dictionary Report. This report closely parallels the printed *Data Dictionary* that describes the O*NET Database and the Content Model.

The Data Dictionary Report shows the following information. For more information about the meaning of these items see the printed *Data Dictionary*. See page one of this *User's Guide* for contact information.

Descriptor Element Name and Definition

Full Content Model Descent

Variable Name

Scale Name

Scale Range

Question Code

Question

In addition, the selected code and title are printed, as well as a graph showing the descriptor mean on an anchored scale with complete labels.

Report... will display a report of "Significant Content Model Descriptors" for the selected occupation.

The threshold for including descriptors in this report is set by the "Minimum Descriptor Value to Report" control. Setting this value to zero will produce a report with all 483 variables listed.

Chapter Eighteen: O*NET Occupational Units and Analyst Ratings

How O*NET Data Were Developed

The O*NET Team conducted research to develop data for use in the O*NET Database. This project had three major tasks:

- Development of Occupational Units (OUs)
- · Development of Task Statements for each OU
- Development of Ratings of the OUs for selected domains in the O*NET Content Model

Development of Occupational Units

To create O*NET Occupational Units (OU), the linkages between *Dictionary of Occupational Titles* (DOT) occupations and (Occupational Employment Statistics (OES) occupations in the National Occupational Information Coordinating Committee (NOICC) Crosswalk were analyzed.

The first step in this process was to create clusters of DOT occupations that showed similar profiles when analysts examined quantitative variables from the *Dictionary of Occupational Titles, Revised Fourth Edition, 1991.* Quantitative variables for Worker Function, Aptitude, General Educational Development and Specific Vocational Preparation were used to cluster DOT occupations by skill level.

These clusters of DOT occupations were then examined for the following:

- Belongingness the degree to which work activities of the DOT occupation matched the work activities described in the OES
- Homogeneity the degree of skill transferability between occupations within each occupational cluster

Skill transferability among DOT occupations within a cluster was measured by estimating the retraining time required from each of the DOT occupations to a single DOT occupation that most closely matched the OES definition. Analysts defined "retraining" as the amount of time required by a worker in one DOT occupation to acquire the additional occupation-specific knowledge and skills for proficient performance in another DOT occupation. Analysts used DOT task data and *Occupational Outlook Handbook* information to identify the skills and knowledge required.

DOT occupations that did not match the OES definition were reassigned to the appropriate OES category. The DOT occupations within an OES occupation were then re-clustered as needed to reflect similar retraining times.

If this process determined that the OES occupations were homogeneous, the 1995 OES five-digit code, title, and definition were adopted as the occupational unit (OU) code, title, and definition.

If this process resulted in DOT occupations being subclustered into two or more OUs, then each OU was assigned the original OES five-digit code plus a unique letter added at the end to create a six-character OU code (i.e., five digits and one letter).

For example, OES occupation 15005 is Education Administrators. The DOT occupations originally linked to this OES occupation were organized into two subclusters. Two OUs, with six-character codes, were created: 15005A College and University Administrators and 15005B Educational Program Directors. The titles and definitions of these OUs were created to be consistent with the original OES titles and definitions. Some of these subclusters were later adopted by the Standard Occupational Classification (SOC) Revision Committee and, in some cases, the titles and definitions were modified for use in the new SOC. In these instances, the revised SOC titles and definitions were adopted for use in O*NET. Fifty OUs (called residuals) were created to account for occupations that cannot be classified as one of the 1,100 occupations in the Viewer. These occupations all have titles

that start with "All Other. . ." For example, All Other Social Scientists. These occupations do not appear in the Viewer because no data have been collected yet about these occupations.

Development of Task Statements

The DOT definitions within the DOT Database were disaggregated into individual task statements linked to DOT codes.

These extracted DOT task statements were then re-aggregated into the newly created OUs. To condense the task list and eliminate duplicate statements, analysts reviewed and combined task statements within OUs that had nearly the same meaning. This resulted in a list of 10 to 20 task statements associated with each OU.

Development of Ratings of the OUs

This section discusses the development of ratings of the OUs for selected domains in the O*NET Content Model.

Ratings on Content Model Categories

Occupational Analysts and Industrial/Organizational Psychology graduate students were trained to rate the OUs on selected O*NET questionnaires using the OU task lists. The sub-domains covered by these questionnaires included Basic and Cross-Functional Skills, Generalized Work Activities (GWAs), Abilities, Knowledge, and Work Context. For the purposes of collecting analyst ratings, the following modifications were made to the O*NET questionnaires.

- The Job Entry Requirement scale was eliminated from the Basic and Cross-Functional Skills questionnaire.
- The Frequency scale used in the GWAs and Work Context questionnaires was changed from a seven-point absolute scale ranging from "once per year or less" to "hourly or more often" to a four-point relative scale ranging from "almost never" to "always."
- Some items in the Work Context questionnaire were altered and/or eliminated.

Each OU was rated independently on Skills, GWAs, Abilities, Knowledge and Work Context by five raters to minimize the effects of rater error. Each rater rated a set of 125 OUs on a single O*NET questionnaire during a rating cycle. Over 1,100 OUs were rated for the six Content Model domains.

Reliability of Ratings

The table below shows the average reliability across five raters for the scales in the sub-domain.

$Sub ext{-}Domain$	Scale	Average Reliability
Abilities	Level	.74
	Importanc	e .71
GWAs	Level	.88
	Importanc	e .85
	Frequency	.81
Knowledge	Level	.83
, and the second	Importanc	e .83
Skills	Level	.87
	Importanc	
Work Context	Various	.74

Chapter Nineteen: More about Crosswalks

 Information about the Classification Schemes Referenced by Crosswalks

The O*NET Database identifies jobs by both occupational code and title. These identifiers are based on the Occupational Employment Statistics (OES) classification codes, titles, and definitions. Occupation List displays all the Occupational Codes and Titles contained in the O*NET Database.

Using the O*NET 98 Viewer, you can cross-reference any O*NET occupational code or title to codes and titles in eight additional occupational classification schemes.

- Dictionary of Occupational Titles (DOT)
- Standard Occupational Classification System (SOC)
- Classification of Instructional Programs (CIP)
- Guide for Occupational Exploration (GOE)
- 1990 Census Occupations (CEN)
- Office of Personnel Management Occupations (OPM)
- Military Occupational Codes (MOC)
- Apprenticeship Information Management System (AIMS)

Using View Crosswalks (from the Activity Menu), you can search for an occupation within one of these other classification systems by using its O*NET title or code. The Viewer will show you the occupation's title and code in the other system.

Dictionary of Occupational Titles (DOT)

The *Dictionary of Occupational Titles* (DOT) is a compendium or dictionary of occupational titles in common usage in U.S. markets. It comprehensively identifies and defines virtually all civilian-sector occupations. The Dictionary of Occupational Titles is one of the fundamental tools of all career guidance counselors involved in assisting individuals to make occupational choices.

Though originally developed in 1939 by the U.S. Department of Labor to help its own staff match workers with jobs and to assist in providing occupational guidance in local Employment Service offices, the DOT now is used throughout the civilian sector.

Each occupation in the DOT is described by a nine-digit code.

- The first three digits sort occupations into occupational categories, divisions, and groups.
- The second three refer to the rated level of complexity of the occupation in relation to data, people, and things, respectively.
- The third group of digits provides a unique suffix for every occupation.

Each occupation has a base title (primary title) and may have alternative titles. This crosswalk includes only the base title corresponding to each DOT code.

For more information on the DOT, refer to:

U.S. Department of Labor, Employment and Training Administration.

1991 Dictionary of Occupational Titles (Fourth ed., Revised, Vols. 1-2). Washington, DC: U.S. Government Printing Office.

Standard Occupational Classification System (SOC)

The SOC Crosswalk cross-references the O*NET occupational codes and titles with the Standard Occupational Classification (SOC) codes and titles. The NOICC Crosswalk describes the SOC in this manner:

The Standard Occupational Classification (SOC) provides a mechanism for cross-referencing and aggregating occupation-related data collected by social and economic statistics reporting programs. The system is designed to maximize the analytical utility of statistics on labor force, employment, income and other occupational data collected for a variety of purposes by various agencies, professional associations, labor unions and private research organizations.

The classification covers all occupations in which work is performed for pay or profit, including work performed in family-operated enterprises where direct pay may not be made to family members. The SOC provides a coding system and nomenclature for identifying and classifying occupations with a framework suitable for use in and out of government. It has been adopted by NOICC as a standard classification system.

For more information on the SOC, refer to:

U.S. Department of Commerce, Office of Federal Statistical Policy and Standards. (1980). Standard Occupational Classification Manual. Washington, DC: U.S. Government Printing Office.

For more information about the NOICC Master Crosswalk, Version 4.3 and its incorporation of the SOC codes and titles, refer to:

National Occupational Information Coordinating Committee (NOICC) Master Crosswalk (Version 4.3) [Electronic Database]. (1996). Des Moines, IA: National Crosswalk Service Center.

Classification of Instructional Programs (CIP)

This Crosswalk cross-references the O*NET occupational codes and titles with the Classification of Instructional Programs (CIP) codes and titles. The NOICC crosswalk provides the following description of the CIP:

The Classification of Instructional Programs (CIP), published in 1981 and revised in 1985 and 1990, is the U.S. Department of Education's standard for federal surveys and state reporting of institutional data, including program offerings, enrollments and completions.

CIP is built on a three-level hierarchical system. It consists of six digits that permit aggregation of comparable

programs at varying levels of detail, from the broad twodigit program category level—through an intermediate four-digit level—to the most detailed six-digit program level.

CIP was designed to be exhaustive and to avoid duplication among the categories. In cases where a program has historically been classified in either of two places, a cross-reference has been provided from one two-digit grouping to another. In these cases the program will appear in two different areas. However, all program titles will have a single unique code derived from a single area.

For more information on the CIP, refer to:

U.S. Department of Education, National Center for Education Statistics. (1991). A Classification of Instructional Programs, 1990 Edition. Washington: U.S. Government Printing Office.

For more information about the NOICC Master Crosswalk, Version 4.3 and its incorporation of the CIP codes and titles, refer to:

National Occupational Information Coordinating Committee (NOICC) Master Crosswalk (Version 4.3) [Electronic Database]. (1996). Des Moines, IA: National Crosswalk Service Center.

Guide for Occupational Exploration (GOE)

This Crosswalk cross-references the O*NET occupational codes and titles with the GOE codes. The NOICC crosswalk provides the following description of the GOE:

The Guide for Occupational Exploration (GOE) published in 1979, with a second edition published in 1984, organizes occupations on the basis of interest areas, work groups and subgroups. Descriptive information is provided for each work group but not subgroups, which are composed simply of lists of DOT codes. The GOE is intended for use both by vocational counselors and by individuals themselves to assist with career and occupational exploration.

For more information on the GOE, refer to:

Harrington, T. F., & O'Shea A. J. (1984). Guide for Occupational Exploration (2nd Ed.). National Forum Foundation.

U.S. Department of Labor, Employment and Training Administration. (1979). Guide for Occupational Exploration. Washington, DC: U.S. Government Printing Office. This report is out of print, but may be available from private developers/vendors of occupational information.

For more information about the NOICC Master Crosswalk, Version 4.3, refer to:

National Occupational Information Coordinating Committee (NOICC) Master Crosswalk (Version 4.3) [Electronic Database]. (1996). Des Moines, IA: National Crosswalk Service Center.

1990 Census Occupations (CEN)

This Crosswalk cross-references the O*NET occupational codes and titles with the 1990 Census codes and titles. The NOICC crosswalk provides the following description of the 1990 Census:

The Census of Population is a complete count for the population of the United States and its territories that has been taken every ten years since 1790. Recent Censuses have collected characteristics such as age, sex and race for 100 percent of the population and more detailed information from a sample of the population.

The 1990 Census of Population used two questionnaires. Industry, occupation and class of worker questions were contained in the long form distributed to a sample of all households. The responses were classified into 236 industrial categories and 501 occupational categories. The 1990 occupational categories were developed from the Standard Occupational Classification (SOC) system.

For more information on the 1990 Census, refer to:

U.S. Department of Commerce, Bureau of Census. (1992). 1990 Census of Population Alphabetical Index of Industries and Occupations. Washington, DC: U.S. Government Printing Office.

For more information about the NOICC Master Crosswalk, Version 4.3 and its incorporation of the 1990 Census codes and titles, refer to:

National Occupational Information Coordinating Committee (NOICC) Master Crosswalk (Version 4.3) [Electronic Database]. (1996). Des Moines, IA: National Crosswalk Service Center.

Office of Personnel Management Occupations (OPM)

This Crosswalk cross-references the O*NET occupational codes and titles with the Office of Personnel Management (OPM) codes and titles. This crosswalk was designed primarily for OPM's internal use.

Apprenticeship Information Management System (AIMS)

This Crosswalk cross-references the O*NET occupational codes and titles with occupations officially recognized as apprenticeable by the Bureau of Apprenticeship and Training (BAT), Employment and Training Administration, U.S. Department of Labor. You can print out the full report of BAT Apprenticeable Occupations linked to O*NET occupations by accessing the "More Information" button on the Search Menu of the O*NET 98 Viewer.

For more information on apprenticeship training, contact:

U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, 200 Constitution Avenue, NW, Washington, DC 20210.

Military Occupational Codes (MOC)

This Crosswalk cross-references the O*NET occupational codes and titles with the Military Occupational Codes (MOC) and titles. Because each service branch uses a different coding system, a military occupation is identified by four fields rather than by a single code:

MOC Military Occupational Code. This code may be taken

from any of the occupational coding systems used by the military. It may be an Army or Marine Corps Military Occupational Specialty (MOS) Code, a Navy or Coast Guard Rating, a Navy Enlisted Classification (NEC)

Code, an Air Force Specialty Code (AFSC) etc.

Service Branch A Army

C Coast Guard

F Air Force

M Marine Corps

N Navy

Enlisted/Officer (EO) Code

E Enlisted

O Commissioned Officer

W Warrant Officer

Skill Level/Pay Grade Range

When there is no occupational distinction in O*NET terms between skill levels or pay grades, the level or grade may be coded as a range (for example, 1-5).

Example #1:

When you use the Crosswalks function available from Search Menu or the Activity Menu to look in the MOC Crosswalk for O*NET occupation 55338A "Bookkeeping and Accounting Clerks,"

O*NET Code

O*NET Title

55338A

"Bookkeeping and Accounting Clerks"

one of the military occupations displayed is as follows:

MOC

Title

73D A E 1-4 "U.S. Army Accounting Specialist"

You can read the MOC 73D A E 1-4 Recruiter as follows:

MOC	Service Branch	$EO\ Code$	Level/Grade	Title
73D	A	E	1-4	Accounting Specialist
	(Army)	(Enlisted)	(Includes skill levels 1-4)	

Example #2:

Military personnel classified with more than one code who wish to search O*NET Crosswalks for their classification codes should search for each code separately.

An enlisted man or woman classified with code SK 2815 (SK = Storekeeper, 2815 = Independent Duty Afloat Storekeeper) will find the NEC 2815 crosswalks to the following O*NET occupations:

58023 Stock Clerks - Stockroom, Warehouse or Storage Yard

55344 Billing, Cost and Rate Clerks

55338A Bookkeeping and Accounting Clerks

However, a search for the Rating SK produces the following O*NET occupations:

Skill Levels 8-9

81011 First-Line Supervisors and Manager/Supervisors-Transportation and Material Moving Machine and Vehicle Operators

15023D Storage and Distribution Managers

Skill Levels 6-7

51002B Storekeepers21308A Purchasing Agents and Contract Specialists

Skill Levels 4-9

58023 Stock Clerks - Stockroom, Warehouse or Storage Yard

Skill Levels 4-5

58028 Shipping, Receiving, and Traffic Clerks

Note that a crosswalk search for codes starting with SK also finds Coast Guard Rating SK.

For more information on military classification codes, please consult the Defense Manpower Data Center site on the World Wide Web:

http://www.dmdc.osd.mil/

Chapter Twenty: Profile Parameters

Detailed Information about Redefining Profile Parameters

Profile Parameter settings affect the way that an Occupational Profile is constructed. These settings apply for the current session only; default settings will be restored when the O*NET 98 Viewer is next started.

Descriptor Selection

Descriptors (Content Model elements) are normally chosen for inclusion in the Profile by looking for those with an importance value greater than or equal to the "Lower Limit for Descriptor Selection." This setting allows you to use the Level scale instead of the Importance scale for selection of Content Model elements to include in the Profile.

Max Number of Ability Descriptors

This is the greatest number of Ability descriptors that will be included in the Worker Characteristics section of the Profile, regardless of descriptor value. The minimum is two.

Max Number of Knowledge/Skill Descriptors

This is the greatest number of Knowledge and Skill descriptors that will be included in the Worker Requirements section of the Profile, regardless of descriptor value. The minimum selection is one Knowledge and two Skills.

Max Number of Generalized Work Activity Descriptors

This is the greatest number of Generalized Work Activity descriptors that will be included in the Occupational Requirements section of the Profile, regardless of descriptor value. The minimum is two.

Lower Limit for Descriptor Selection

This is the threshold for selection of descriptors in any category. Descriptors with means below the threshold will be selected only if the minimums are not found above the threshold.

Save saves the current parameters.

Cancel leaves the parameters unchanged.

Restore Defaults restores system default parameters. These are always restored on Viewer startup.

Chapter Twenty-One: Skill Search Parameters

Details about Importance Thresholds

These parameters affect the way that occupations are found in the Skills Search. These settings apply for the current session only; default settings will be restored when the Viewer is next started. Only users working at the Expert User level can reset these threshold parameters.

Select Occupation with Mean Importance >= (greater than or equal to)

This is the Importance threshold for selecting an occupation based on the user's skill list. An occupation will be selected as a match for the user's skill list *if both of the following conditions are met*:

- (1) The mean importance of the skills in the skill list is greater than or equal to the threshold. The default is 50. (This mean rating is calculated by dividing the total of the skill values by the number of skills.)
- (2) At least 80% of the skills in the skill list have importance ratings greater than or equal to the threshold. (This percentage is calculated by dividing the number of the skills above the threshold by the total number of skills.)

Importance Values are as follows:

- 100 Extremely Important
- 75 Very Important
- 50 Important
- 25 Somewhat Important
- $0 \quad \ \, \text{Not Important} \\$

For example, assume that there are five skills in the user's skill list and the threshold is 50. Consider the following occupations:

• Occupation 1 — importance ratings: 60, 40, 60, 70, 50

This occupation will be considered to match the skill list because the mean rating is 54, and four of the five skills are rated at or above the threshold value, which is 50.

• Occupation 2 — importance ratings: 90, 90, 90, 30, 40

Even though the mean rating is 68, this occupation will not be considered to match the skill list because only 60% of the skills (only three of the five skills) are rated at or above the threshold value of 50.

Cutoff Value for "Average Level" of Skill Match

This is the threshold for computing the level of skill required when "Average Level" is selected. The default is 50, and this value can be raised or lowered. The mean level rating of all skills in the skill list must be greater than or equal to this value for the occupation to be included in the "Average Level" selection.

Some interesting occupations require a variety of skills, the most important of which of which are rated just below "Important" (50). Long-distance truck driving is an example. To find such occupations, it may be necessary to lower the cutoff value for both Level and Importance scales. Do this by changing the setting in Parameters from the Settings button on the Search Menu.

Cutoff Value for "High Level" of Skill Match

This is the threshold for computing the level of skill required when "High Level" is selected. The default is 70, and this value can be raised or lowered.

Save saves the current parameters.

Cancel leaves the parameters unchanged.

Restore Defaults restores system default parameters. These are always restored on Viewer startup.

Chapter Twenty-Two: Keyboard Shortcuts

General Shortcuts

To do this

Move from button to button
Use most action keys
Go to Activity Menu
Go to Search Menu
Go to Online Help
Exit the Viewer

Press
Tab (Press Enter to select)
Alt+ the underlined letter
Alt+A
Alt+B
Alt+B
Alt+H (or F1)
Alt+X

Shortcuts for the Preview Report Screen

To do this Press Preview the report V Р Print the current report S Open the Printer Setup dialog box (Use Tab to move in this box) Zoom in/out Z Go to a page F5, <page number>, Enter Scroll down in large increments Page Down key Scroll up in large increments Page Up Key Move Up, Down, Right, Left **Use Arrow keys**

Reference for Expert Users

Move up or down in page increments Move to right edge of the page Move to left edge of the page Move to upper-left corner of the page Move to lower-right corner of the page

Close Print Preview

Ctrl+Arrow keys Ctrl+Right Arrow Ctrl+Left Arrow Ctrl+Home Ctrl+End

C

Index

Α

Accessibility Options 18
Activity Menu 6, 7, 24, 32, 55–56
Data Dictionary button 56
Disabled 24
Analyst Ratings 107
Apprenticeship Information Management Sys. (AIMS) 114

В

BAT Apprenticeable Occupations 49, 51, 84, 114 Bureau of Apprenticeship & Training 51, 84, 114 Bureau of Labor Statistics Employment Projections 51, 82

C

Census Occupations 1990 (CEN) 113
Change Descriptor Value Presentation. See Parameters
Change Profile Parameters. See Parameters: Profile
Change Skill Search Parameters. See Parameters: Skill Search
Change the Screen Display. See Configuring the Viewer's Appearance
Change User Level 12
Classification of Instructional Programs (CIP) 111–112
Configuring the Viewer's Appearance 13
Content Model 5, 56
Domains of 57–58, 72–73, 107–108
Screen 98
Technical Report 73

Content-related Questions. See National O*NET Consortium Copyright Information iv Crosswalk Search 35-37 View 67-68 Crosswalks 109-117 Apprenticeship Information Management Sys. (AIMS) 114 Census Occupations 1990 (CEN) 113-114 Classification of Instructional Programs (CIP) 111–112 Dictionary of Occupational Titles (DOT) 110 Guide for Occupational Exploration (GOE) 112–113 Military Occupational Codes (MOC) 115-117 Office of Personnel Management Occupations (OPM) 114 Standard Occupational Classification System (SOC) 110-111 D Data Dictionary 7, 56, 58, 101-104 Access for Expert Users 13, 66 Department of Labor, to contact 1 Descriptor Value Presentation 13, 15 Descriptors 119 Abilities 61, 64, 119 Generalized Work Activities 16, 61, 64, 120 In Data Dictionary 97, 101-104 In Details 62-64 In Profile 119–120 Interests 16, 62, 64 Knowledge 61, 64, 119 Lower Limit 120 Skills 61, 64, 119 Work Context 16, 61, 63, 64 Work Values 16, 62, 64 Detailed Report for Occupation 64, 95 Details for Occupation 6, 61–66 Bar Graphs 64 Detailed Report 64, 95 How Organized 61

Development of Task Statements 107 Dictionary of Occupational Titles (DOT) 36, 67, 105, 110 Display Setting 13–14

Ε

Employment and Training Administration 1
Equal Opportunity Guidance Letter x, 51
Experienced User. See User Level
Expert User. See User Level
Explanatory Screens 12

F

Frequency. See Scales

G

Getting Started 9–19 Graph Report Screen 94, 95 Guide for Occupational Exploration (GOE) 112–113

Н

Hardware Requirements 9 Help Screens 7, 12, 13, 17, 18, 39 Hotspots 17, 18

ı

Importance Value for Descriptor Selection 119 Installation 9–11

J

Job Zones 75-78

K

Keyboard Shortcuts 16, 123–124 Keyword Search 6, 29–30

L

Level of Skill Required. See Scales Level Scale for Descriptor Selection 119

M

Military Occupational Codes (MOC) 115–117 Monitor Resolutions 14

Ν

National O*NET Consortium 1 Navigating in the O*NET 98 Viewer 16–17, 62, 123–124 New User. *See* User Level

0

O*NET 71

Background Information 71–73

Design and Organization 24, 26

O*NET 98 Products 72

Occupation Details 61–66

Occupational Employment Statistics (OES) 24, 26, 105–107, 109

Occupational Profile. See Profile

Occupational Skills Detail Report 44, 45, 91, 92

Occupational Units 105–108

OES Occupations 26, 105–107

Office of Personnel Management Occupations (OPM) 114

Original Scales. See Scales: Original

P

Parameters
Changing 48
Descriptor Value Presentation 15
Importance Threshold 121
Profile 14–15, 119–120
Skill Search 15, 121–122
Profile, Occupational 6, 57–60

Q

Questions about Content. See DOL, Employment & Training Administration Questions about Reports and Documents. See National O*NET Consortium Questions about Technical Problems. See Trefoil Corporation

R

Ratings of the OUs 107–108 Reliability 108 Related Occupations 6 Defined 31 From Activity Menu, Profile 32–33, 57, 60 From Search Menu, Titles/Codes 32-33, 60 How Derived 31 Reports 49-51, 79-98 All Occupations by Code 50, 79 All Occupations by Title 50, 80 All Occupations by Title, Code & Definition 50, 81 America's Career Kit 51 Available from Search Menu 49-51 BAT Apprenticeable Occupations 51, 84 BLS Employment Projections 51, 82 Crosswalks Report 68, 93 Current Occupation 27, 30, 50, 80 Data Dictionary Detail Reports 96, 102–103 Equal Opportunity Guidance Letter 51. See also x Formatting and Printing 19 More Information 51 Occupational Outlook 86 Occupational Profile 58, 65, 86 Occupational Skills Detail Report 44, 45, 91, 92 Related Occupations 32 Significant Content Model Descriptors 97, 103 Skill Search Results 44 Skill Selection List 44, 90 Unpublished DOT Occupations 51, 83 Vendor Enhancements 51, 82 Worker Characteristics 86

Requirements

For Software and Hardware 9

```
S
Scales 15-16, 46
  Anchors 104
  Changing Cutoff Value 48
  Difference between Importance and Level 16
  Frequency 16, 107
  Importance of Skill 46, 121
  Level of Skill Required 46, 122
  Original 15, 104
  Skill Search Parameters 121
  Standardized 15, 102, 104
  Understanding 16, 46
Screen Display 13, 14-15
Search
  Crosswalk. See Crosswalk: Search
  Keywords 29-30
  Lists and Reports 49–51
  Related Occupations 31–33
  Skills 39-48
  Titles or Codes 25-27
Search Menu 6, 7, 23-24, 32
  Importance of 24
Settings button
  For Expert Users 14-15
Shortcuts. See Keyboard Shortcuts; Navigating in the O*NET 98 Viewer
Skill Level
  Choice 47
  Ranges 46, 47
Skill List 43, 47
Skill Required. See Scales
Skills Search 6, 39-48, 121-122
Skills Search Parameters 121–122
  Cutoff Value for "Average Level" of Skill Match 122
  Cutoff Value for "High Level" of Skill Match 122
  Threshold Value 122
```

```
Skills Search Results 44
  Changing 47
  Report 90
Software Requirements 9
Special Notice for Users v
Standard Occupational Classification (SOC) 110-111, 113
  Revision of 26
Support, Software-Related 1
Т
Task Statements 61, 62, 65, 107
Technical Reports viii, 16, 73, 78, 104. See also National O*NET Consortium
Technical Support 14, 19. See also Trefoil Corporation
Titles/Codes 6, 25-27
  How Derived 26
Toolbar 17, 18, 24
Trefoil Corporation 1
U
U.S. Department of Labor 1
Uninstalling
  Accessibility Options 18
  The Viewer 11
User Agreement vi-vii
User Level 11-13
  Additional Features for Expert Users 13
  Experienced with O*NET 11–12
  Expert with O*NET 11-13, 14, 26, 48, 66, 99-124
  New to O*NET 11-12, 18
V
View By Code 26
View By Title 26
View Crosswalks. See Crosswalk: View
```

W

Web Sites
Disability Information xiii—xiv
DOL, Employment & Training Administration
http://www.doleta.gov/programs/onet/ 1
National O*NET Consortium
http://www.onetcenter.org/ 1
Trefoil Corporation
http://www.trefoil.com/ 1