



# computerized interest profiler

User's Guide



U.S. Department of Labor  
Employment and Training Administration



## SPECIAL NOTICE: USER'S AGREEMENT

The O\*NET™ Career Exploration Tools are composed of the O\*NET WORK IMPORTANCE LOCATOR, O\*NET INTEREST PROFILER, O\*NET WORK IMPORTANCE PROFILER, O\*NET COMPUTERIZED INTEREST PROFILER, and O\*NET ABILITY PROFILER products and are owned by the U.S. Department of Labor, Employment and Training Administration (DOL/ETA). All O\*NET Assessment/Counseling Tools are copyrighted. O\*NET is a trademark of DOL/ETA.

The DOL/ETA developed the O\*NET Career Exploration Tools as career counseling, career planning, and career exploration tools. In order for each tool to provide an objective assessment, extensive research and development was conducted to ensure that the directions, format, items, and score reports lead to valid assessment. The DOL/ETA adhered to the high standards of the American Psychological Association, the American Education Research Association, and the National Council on Measurement in Education in developing the O\*NET Career Exploration Tools. In developing the tools, fairness analyses were conducted to ensure that score results were equally valid both from a statistical and a usability perspective.

Results provided from the O\*NET Career Exploration Tools are part of a whole-person approach to the assessment process. They provide useful information that individuals can use to identify their strengths, the parts of work they like to do, and the parts of work that they may find important. Individuals can use results to identify training needs and occupations that they may wish to explore further. Individuals are strongly encouraged to use additional information about themselves with O\*NET Career Exploration results when making career decisions.

As such, the use of the O\*NET Career Exploration Tools is authorized for career exploration, career planning, and career counseling purposes only. Each O\*NET Career Exploration Tool must be used consistent with its own "User's Guide." No other use of these tools or any part of the tools is valid or authorized.

All users are bound by the terms of "Special Notice: User's Agreement." If you use any of the O\*NET Career Exploration Tools, you have agreed to be bound by the terms of "Special Notice: User's Agreement."

**If any of the O\*NET Career Exploration Tools are used for a purpose or purposes other than career exploration, career planning, and career counseling purposes, it is a violation of this Agreement and neither the U.S. Department of Labor nor the Employment and Training Administration is liable for any misuse of the tools.** The DOL/ETA reserves the right to pursue all legal remedies for violations of this "Special Notice: User's Agreement."

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3. "O\*NET In It" bug with ™ symbol must appear in and on user products. This graphic can be obtained from the National O\*NET Consortium web site (<http://www.onetcenter.org>) under the listing, "Developer's Corner."



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### SPECIAL NOTICE: O\*NET DEVELOPER'S AGREEMENT

Users intending to develop other products, software or systems applications using O\*NET Career Exploration Tools products must follow the "O\*NET Developer's Agreement," which can be found on the "Developer's Corner" at <http://www.onetcenter.org>, or contact the National O\*NET Consortium, North Carolina Employment Security Commission, P.O. Box 27625, Raleigh, NC 27611.

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The development of the **O\*NET Computerized Interest Profiler** was directed by Phil Lewis and David Rivkin. Ten research phases were conducted in support of the development of the instrument, each of which required multiple steps and the participation of a wide variety of staff, contractors, and pilot sites. Grateful acknowledgment for their prominent roles in this process is made to Jeannie Stroupe, Dr. James Rounds, Ann Kump, Diana Williams, Ronald Boese, Dr. Brian Young, Victoria Gray, Maureen Mendick, Brenda Dunn, and Jerry Pickett. A special thanks is given to Dr. René V. Dawis for his technical contribution and the guidance he provided at the conception of the project.

## Overview

The U.S. Department of Labor's Employment and Training Administration has developed the **O\*NET® Career Exploration Tools**, a group of career counseling assessment tools. The tools are designed to assist a wide variety of users with identifying information about themselves. They can use this self-knowledge to guide their exploration of occupations included in the Occupational Information Network (O\*NET), the automated replacement for the *Dictionary of Occupational Titles* (U.S. Department of Labor, 1991a).

The tools stress whole-person assessment. Users are able to take a variety of valid and reliable assessment instruments, each providing important information that can help them explore the world of work. The **O\*NET Career Exploration Tools** include:

Tool	Format	Purpose
<b>O*NET® Interest Profiler</b>	Paper-and-pencil	Help individuals identify work-related interests
<b>O*NET® Computerized Interest Profiler</b>	Computer-based	Help individuals identify work-related interests
<b>O*NET® Work Importance Locator</b>	Paper-and-pencil	Help users decide what is important to them in a job
<b>O*NET® Work Importance Profiler</b>	Computer-based	Help users decide what is important to them in a job
<b>O*NET® Ability Profiler</b>	Paper-and-pencil	Help individuals identify what they can do well

These assessment tools help individuals discover three important pieces of information that are valuable when exploring careers:

- 1) what they like to do,
- 2) what is important to them in the world of work, and
- 3) what they do well.

**O\*NET Career Exploration Tools** are designed to be interactive and flexible. Individuals are able to take one or all of the instruments, depending on their particular needs. They also may take the tools in conjunction with privately-developed career counseling tools. Additionally, the O\*NET interest and work importance tools can be self-administered by a large percentage of clients, with no outside assistance. The tools provide individuals with results presented on score reports that are self-interpretable. The tools and their associated reports also are useful for group settings, such as training programs, classrooms, and job search programs. This guide can help workforce professionals assist clients in using the tools and can help them incorporate the tools into their programs.

This User's Guide was developed for the **O\*NET Computerized Interest Profiler (CIP)** in order to help users:

1. understand the theory behind the CIP,
2. learn how to administer the CIP,
3. interpret CIP results,
4. understand how the CIP was developed, and
5. incorporate the CIP into workforce development programs.

User's Guides also are available for the other **O\*NET Career Exploration Tools**. For more information on these guides or other O\*NET products, contact the National Center for O\*NET Development.

Internet: <http://www.onetcenter.org>

e-mail: [onet@ncmail.net](mailto:onet@ncmail.net)

regular mail: Customer Service  
National Center for O\*NET Development  
Post Office Box 27625  
Raleigh, NC 27611

fax: (919) 715-0778

## **Special Notice: Proper Use of O\*NET Computerized Interest Profiler™ Results**

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Please pay particular attention to the proper use of the **O\*NET Computerized Interest Profiler** results. Part of your responsibility as an administrator/user of the **O\*NET Computerized Interest Profiler** is to ensure its proper use.

**O\*NET Computerized Interest Profiler** results provide useful information that individuals can use to discover the type of work activities and tasks that they would enjoy on the job. They can use results to identify training needs and occupations that they may wish to explore further. Individuals are strongly encouraged to use additional information about themselves when making career decisions.

The results of the **O\*NET Computerized Interest Profiler** are authorized for career exploration, career planning, and career counseling purposes only. No other use of this tool or any part of this tool is valid or authorized.

Please read the **Special Notice: User's Agreement** before administering the **O\*NET Computerized Interest Profiler**.

For further information on proper use of **O\*NET Computerized Interest Profiler** results, contact:

National Center for O\*NET Development  
Attention: Customer Service  
P.O. Box 27625  
Raleigh, NC 27611

phone: (919) 733-2790  
fax: (919) 715-0778  
e-mail: [onet@ncmail.net](mailto:onet@ncmail.net)

## 1. INTRODUCTION

One of the U.S. Department of Labor's (DOL) **O\*NET® Career Exploration Tools** is the **O\*NET Computerized Interest Profiler (CIP)**, a career interest assessment instrument. Clients receive a profile of their career interests that:

1. provides valuable self-knowledge about their career interests,
2. fosters career awareness, and
3. directly links the client to the entire world of work via the 900+ occupations within **O\*NET OnLine**.

The **O\*NET Computerized Interest Profiler** is based on the most up-to-date knowledge of vocational theory and practice. The instrument is composed of 180 items describing work activities that represent a wide variety of occupations as well as a broad range of training levels. Interest areas are compatible with Holland's (1985a) R-I-A-S-E-C constructs: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. The Holland typology is grounded in a rich and extensive research history, is widely accepted and used by counselors, and is well received by clients when used in either automated or paper-and-pencil delivery formats. More detail is presented about Holland's typology in Chapter 8 of this Guide, which discusses the development of the **O\*NET Computerized Interest Profiler**.

The **O\*NET Computerized Interest Profiler User's Guide** was developed for programs (e.g., schools, employment service offices, career information delivery systems, job search programs) that will incorporate the CIP into their career exploration services. The Guide helps users understand how to properly incorporate the CIP into their programs by providing administration instructions and guidelines as well as technical development information. Suggestions for helping clients take the CIP and use their results also are provided.

This User's Guide is divided into the following sections:

- 1) **Overview**
- 2) **Introduction** to the CIP
- 3) **Installing the O\*NET Computerized Interest Profiler**—includes instructions for installing/uninstalling the CIP on a stand-alone computer. Information on installation for a network is given in Appendix A, along with other computer-related details.
- 4) **Administering the O\*NET Computerized Interest Profiler: An Overview**—provides a brief summary of the purpose of the CIP and the options available in its administration.

- 5) **Self-Administration of the CIP**—discusses the process by which someone takes the CIP independently. It includes a step-by-step tour through the instrument and answers to commonly asked questions.
- 6) **O\*NET CIP Results**—provides a complete description of the components of the CIP results and how they can be used by clients.
- 7) **Alternative Administration Methods**—describes other methods for administering the CIP, including group and combined individual/group administration.
- 8) **Career Exploration Activities**—discusses a variety of activities that can augment the CIP as a career exploration tool.
- 9) **Overview of Holland Vocational Personality Theory**—provides a brief but thorough introduction to the theory compatible with the CIP.
- 10) **Saving Client Data - Network Version**—describes some uses for the data that is stored for each client who takes the CIP, as well as the structure of those files.
- 11) **O\*NET CIP Demonstration Version**—provides an overview of the demonstration version of the CIP that can be used to introduce the instrument to colleagues, users, and other interested parties.
- 12) **Where Can I Get More Help With Using the O\*NET CIP?**—provides resources for further exploring the instrument and its use.
- 13) **Development of the O\*NET CIP: An Overview**—provides an explanation of the development of the O\*NET CIP. This includes item and scale development, as well as CIP format development.

**Note:** This section contains some detailed technical information that is important to vocational researchers. It also contains information that will provide educators and vocational counselors with a better understanding of the steps that went into ensuring that the CIP meets stringent technical standards. For a detailed description of the development of the **O\*NET Interest Profiler**, the instrument on which the CIP is based, see *Development of the O\*NET Interest Profiler (IP)* (Lewis & Rivkin, 1999). To learn more about the psychometric characteristics of the IP and CIP, see *O\*NET Interest Profiler: Reliability, Validity, and Self-Scoring* (Rounds, Walker, Day, Hubert, Lewis, & Rivkin, 1999) and *O\*NET Computerized Interest Profiler: Reliability, Validity, and Comparability* (Rounds, Mazzeo, Smith, Hubert, Lewis, & Rivkin, 1999).

Throughout the Guide you will find sections that present commonly asked questions and possible responses to challenges clients may face in taking the CIP. Together, these sections, along with the CIP, should provide users with the information they need to effectively utilize the instrument in their organization's career counseling program.

## 2. INSTALLING THE O\*NET COMPUTERIZED INTEREST PROFILER STANDALONE COMPUTER INSTRUCTIONS

The automated version of the CIP can be administered via any computer that meets the minimum hardware requirements. Before installing the program, you should verify that you have the necessary hardware/software configuration on your computer.

### CHECK YOUR HARDWARE AND SOFTWARE

The following hardware and software are required for installation of the CIP.

Component	Recommended	Minimum
Computer	Pentium	486
RAM	16 MB	8MB
Monitor	VGA 32,000 colors, 800 x 600	VGA 256 colors, 640 x 480
Pointing device	Mouse	Keyboard
Platform or Operating System	Windows 95/98/NT/2000/ME	Windows 95/98/NT/2000/ME
Free Hard Disk Space	5MB	5MB

While the CIP can run on a monitor with only 256 colors, it is best viewed with the monitor specifications recommended above. To check or reset the monitor resolution and color display:

In this operating system...	Go to...	Look at...
Windows 95/98/NT/2000/ME	Start Menu, Settings, Control Panel, Display	Settings Tab

The CIP can be viewed with either large or small fonts. Note that to finalize the changes, most settings will require you to reboot your computer. Be careful to make these changes when other applications are closed and after you have saved any work in progress.

### INSTALL THE CIP ON A STANDALONE COMPUTER

Installing the CIP takes 3 to 4 minutes. It is good practice to close all other applications before beginning the process. This practice frees up memory for the installation process and avoids problems of losing data should the computer need rebooting. The steps in this section describe how to install the CIP on a single computer. **Network installation is described in the Appendix. It is recommended that network installation be done by your system or network administrator.**

Locate the previously downloaded O\*NET Computerized Interest Profiler installation file, **setup.exe**, and follow the instructions below for installation. The instructions assume you are installing the CIP from a folder on drive C:. If you are using other drives, simply substitute the appropriate drive designations.

<b>Operation</b>	<b>Windows 95/98/NT/2000/ME</b>
Choose	<b>Run</b> from the Start Menu
Type	<b>C:</b> \<path>\ <b>setup.exe</b> in the dialog box (e.g. C:\my download files\setup.exe)
Click/Press	<b>Enter/OK</b>
Options offered	Interest Profiler - Standard                      Work Importance Profiler - Standard Interest Profiler - Demo                              Work Importance Profiler - Demo
Choose	Interest Profiler - Standard and/or Interest Profiler - Demo (Also check Work Importance Profiler - Standard and/or Demo for concurrent installation of both instruments) <b>(Next)</b>
Options offered	Standalone Installation or Network Administrative Installation
Choose	<b>Standalone Installation (Next)</b>
Option offered	Choose destination location
Choose	Default directory/folder ( <b>C:\Program Files\ONET Assessment Tools</b> ) or select browse and type in directory/folder where you want the CIP program installed <b>(Next)</b>
Option offered	Select program manager group
Choose	Default directory/folder ( <b>ONET Assessment Tools</b> ) or select the name of the Program Manager group where you want the O*NET Assessment Tools icons added. <b>(Next)</b>
Option	Create desktop icons
Choose	Select Default ( <b>Create icons on desktop</b> ) or clear the check box if you do not want icons created. <b>(Next)</b>
Option	Start installation <b>(Next)</b>
Click	Installation Complete <b>(Finish)</b>

**Note:** The program will use the default printer installed for your Windows applications.

## FILES INSTALLED FOR STANDALONE COMPUTERS

The following files comprise the CIP when installed on a single computer.

File Name	Purpose
IP.EXE IPDEMO.EXE	Runs the standard version Runs the demonstration version
IPOUMAS.TXT IPOUSHR.TXT IPJZ.CSV	Data files used by the CIP and the CIPDEMO
INSTALL.LOG	Installation log
UNWISE.EXE	The uninstaller
DAO2535.TLB	Visual Basic database library
RIGHTX32.OCX CLBCATQ.DLL THREED32.OCX	Updates to system files already installed

## UNINSTALLING THE CIP

To uninstall the CIP, use the automatic Uninstall option from the Start Menu, Settings, Control Panel, Add/Remove Programs. Scroll down the program listings and select O\*NET Assessment Tools. Click on Add/Remove, then select Automatic.

**Note:** Uninstall will remove all of the O\*NET Assessment Tools and the desktop icons.

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### 3. ADMINISTERING THE O\*NET COMPUTERIZED INTEREST PROFILER: AN OVERVIEW

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The **O\*NET Computerized Interest Profiler** includes an introductory section, questions about interests, a Job Zone section, and an occupations report. The instrument uses a client's score profile along with Job Zone information (i.e., level of preparation) to direct clients toward occupations that most closely match their interests and Job Zone. Although the measure was designed for self-administration, a counselor's assistance in explaining the CIP and in score interpretation can be valuable. This is particularly true with younger clients and those who have less experience with computerized assessments. In the section that follows, the self-administration of the CIP is presented. In this section, you are walked through the CIP, section by section. Important CIP screens are presented, and critical instructions on the screens are highlighted. Later chapters discuss CIP results, including the selection of a Job Zone and the parts of the CIP occupations report. Finally, chapters are included that discuss CIP group administration and combined administration procedures. These latter chapters address having clients do part of the CIP independently and part in a group. Clients can take the instrument by themselves and then receive assistance from a career counseling professional in the interpretation of their scores.

#### **The O\*NET Computerized Interest Profiler Commonly Asked Questions**

Below are some commonly asked questions that users have regarding this tool. The answers provided will enable you to make sure clients enjoy their experience and receive accurate, meaningful results.

#### **What are appropriate ways to use the O\*NET Computerized Interest Profiler?**

CIP results should be used for career exploration, career development, and other career counseling purposes.

#### **What are some examples of how clients should use the O\*NET Computerized Interest Profiler results to explore the world of work?**

Clients should learn about their career interests and explore occupations that are likely to satisfy their entire profile of interests.

(continued on next page)

## **The O\*NET Computerized Interest Profiler** **Commonly Asked Questions** (continued)

### **What are improper uses of the O\*NET Computerized Interest Profiler?**

CIP results must not be used for hiring or employment decisions. They must not be used to select an individual for a job or training program. They must not be used to screen applicants for a training program or job. They must not be used to make promotional decisions. They must not be used to see if someone qualifies for a particular educational program.

### **What reading level is the O\*NET Computerized Interest Profiler designed for?**

The CIP was designed for use with a wide variety of populations, including workers in transition, unemployed workers, college students, and junior high and high school students. It is suggested that clients have a minimum of an eighth-grade reading level to take the CIP. Clients below this level may not be able to adequately understand the information in the CIP.

### **How much experience with computers is needed?**

The CIP was designed to be user friendly to a wide range of clients with differing levels of familiarity with computers. For those clients with minimal exposure to computers, specific sections are included to help them work through the instrument.

### **What age levels was the CIP designed for?**

The CIP was designed for clients who are 14 years of age and older. Individuals younger than 14 may not have had broad enough life experiences to respond to the CIP questions. Also, individuals younger than 14 may not have really crystallized their interests. They likely are still in the process of developing *strong* interests.

### **How long will it take clients to complete the O\*NET Computerized Interest Profiler?**

The CIP takes anywhere from 30 to 60 minutes to complete. This includes time to review scores and the occupations that have been generated in light of those scores and selected Job Zone. Users may take additional time to experiment with different Job Zones and/or to change their answers to the CIP to see different outcomes. **You should alert clients that they should keep their occupations report** if they think they may want to use the results in the future to examine different occupations or use in combination with results from other instruments. Otherwise, they will have to complete the entire instrument again.

(continued on next page)

**The O\*NET Computerized Interest Profiler**  
**Commonly Asked Questions** (continued)

**Can clients complete the O\*NET Computerized Interest Profiler in one session?**

Yes. The instrument was designed to be completed in one session. This will provide continuity to the administration process and will help clients better understand the information the CIP is trying to convey. It may not be possible to schedule a single session in which clients can complete the instrument and explore their results. If so, the session can be split in two – during the first one, clients can complete the instrument and save their results; the second session can be devoted to exploring the results. This is discussed in more detail later in this User's Guide.

## 4. SELF-ADMINISTRATION OF THE O\*NET COMPUTERIZED INTEREST PROFILER

The **O\*NET Computerized Interest Profiler** was designed to be self-administered and contains all the necessary instructions for individuals to complete the measure independently.

Before administering the CIP, it is very important that you take the instrument yourself to become familiar with all of the CIP's parts and procedures. As you read through this section of the manual, follow along with the actual program. You will notice that a sample of the screen pictures is included in the Guide so you can check whether you are in the correct place.

To start the CIP, clients simply double click on the CIP icon that appears on the desktop. An overview of the instructions individuals read and follow to complete the CIP is presented below.

### OPENING SCREENS

The opening screens of the CIP introduce the instrument to the user. They help teach the user how to navigate through the CIP.

The opening screens of the O\*NET CIP are as follows:

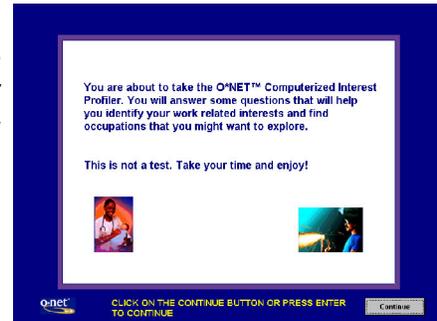
The O\*NET preview screen includes the logo, version number, and "Click to Start" button to begin. This information is similar on all O\*NET-related products. Note that users can also press the "Enter" key to begin the CIP.



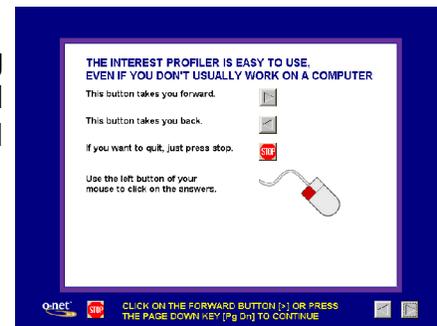
In the upper left hand corner of the preview screen is a **View User Agreement** button. By clicking on this button, you can view/print two user agreements. The **Special Notice: User's Agreement**, which is geared for workforce development programs and private vendors, describes the guidelines that individuals and programs should follow when using the CIP and other **O\*NET Career Exploration Tools**. It emphasizes that the tools may be used only for career exploration, career planning, and career counseling. Any other use of the instruments is in violation of the User's Agreement. The U.S. Department of Labor and the Employment and Training Administration are not liable for any misuse of the tools.

The second agreement that can be viewed/printed, the **Special Notice: Proper Use**, is geared toward the end user—the individual client. It describes how results from the CIP should be used for career exploration and career counseling purposes only, and that results must not be used for employment selection and screening purposes. If an individual feels that his or her results are being improperly used, information is provided for contacting the National Center for O\*NET Development.

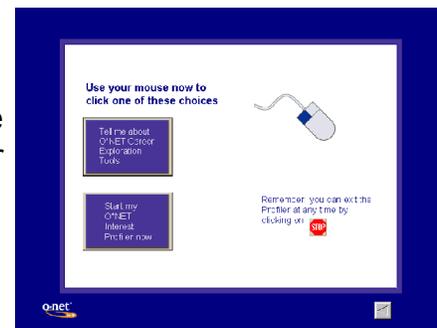
The next screen informs users that the CIP involves answering some questions that will help them identify their interests. It also states that this is not a test, and that they should take their time and enjoy the experience.



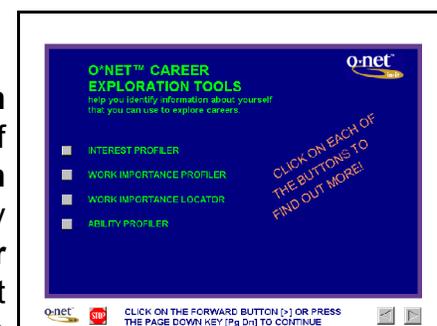
The following two screens provide instructions for moving through the program using a mouse or keyboard. Keyboard directions can be printed. This may be particularly useful for individuals who have limited computer experience.



At this juncture, users are given the option of viewing more information on the **O\*NET Career Exploration Tools** or immediately starting their CIP.



If they select “Tell me about **O\*NET Career Exploration Tools**,” they view three optional screens providing brief descriptions of each of the **O\*NET Career Exploration Tools**, their inter-relationships, and the benefits that they can provide. In combination, the **O\*NET Career Exploration Tools** allow for a whole-person assessment—using different pieces of information about individuals to



explore the world of work. The more clients know about their career-related interests, the better chance they have of finding interesting and satisfying careers.

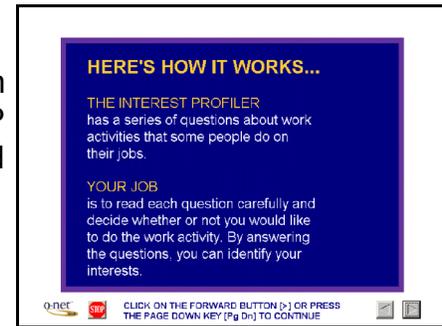
If users choose to immediately begin the CIP, they will see a screen that requests they enter their name. (The network version of the CIP, which allows the administrator to save data, also requests an optional ID number.) This information is optional and is collected for identification purposes only. If the individual enters this information, it will appear on his/her score summary and occupation report(s).



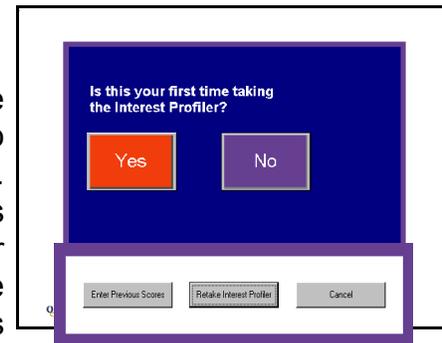
## STARTING THE CIP

These screens summarize the purpose of the CIP and present options for proceeding, one for the first-time user and one for a repeat user. At this point, users are asked if this is their first time taking the CIP.

If the answer to this question is “yes,” the program continues with an explanation of the purpose of the CIP and general instructions for answering questions and taking the instrument.



If the answer to the question is “no”, meaning that the users have taken the CIP previously, they are asked to either enter their existing scores or take the CIP again. Individuals should retake the CIP if they have any doubts about their first experience (e.g., they were nervous and/or unhappy with the results) or if a significant amount of time (more than one month) or experience (work, school) has elapsed or occurred since their last administration.



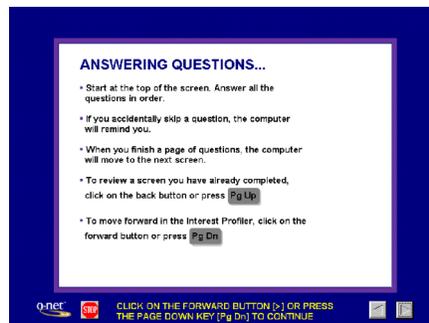
If they choose to enter prior scores, a screen appears that allows them to do so. (It is advisable that users keep their score summary which allows them to use this screen to enter prior scores.) After entering their scores, users are



allowed to pick a Job Zone and then go directly to the occupations report section (see Occupations Reports section of this Guide).

## ANSWERING QUESTIONS

The next series of screens provides instructions and mechanics for answering questions. Users are given a chance to practice clicking on answer choices as they will appear on the actual Interest Profiler. This practice is particularly useful for individuals with little computer experience. The instructions for taking the CIP explain that the items must be completed in order and that the computer will inform users if they skip an item. The reason for this instruction is that score interpretation information is based on the clients taking the items in a specific order. If clients "jump around" when completing items, the score interpretation information provided may not be accurate. In addition, answering the items in order reduces the likelihood that items will be skipped.

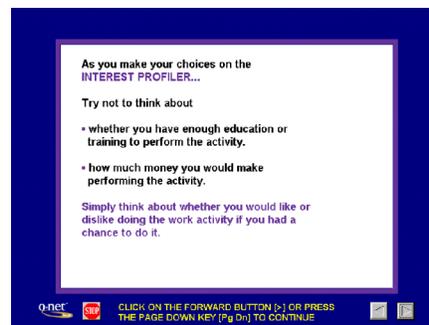


While completing the CIP, users can change their answers at any time. Instructions for doing so are provided in these opening screens.

Prior to actually completing the CIP, individuals are given important instructions to follow. Users are reminded that they should not think about:

- 1) whether they have the education or training needed to perform the activities mentioned in the instrument or
- 2) how much money they would make performing the activities.

Their responses should be based solely on whether they think they would enjoy each activity.



Finally, users are reminded that the CIP is not a test; there are no right or wrong answers, and there is no time limit. These instructions help ensure that individuals' real interests are identified and that their answers are not influenced by factors other than what they like.

### **Possible Client Challenges—Preparing to take the CIP**

- **Clients who are unfamiliar with computers may be concerned that they will do something that will damage the program or equipment.**
  - ☞ Assure them that the CIP has been well tested and that there is nothing they can do to the program. Sit with the client and have them move back and forth through the first few screens and complete the practice items.
- **Clients might have a hard time working with the mouse.**
  - ☞ Again, allow them to practice by moving back and forth through the first few screens. Point out that, if they prefer, they can use the keyboard instead of the mouse. The CIP offers a simple option of using the keys “L” (Like), “D” (Dislike), or “?” (Unsure) for each item.
- **Clients may be concerned that they will make a mistake or that the CIP will tell them something they don’t want to hear.**
  - ☞ Reassure them that they can always change their answers if they make a selection they don’t want. Tell them that they will have plenty of opportunities to rethink their selections and even take the CIP over again, if they wish to do so.

### **O\*NET COMPUTERIZED INTEREST PROFILER QUESTIONS**

This section discusses the type of questions included and how to navigate through the questions. There are six color bands of items in the CIP. Items in the same color band represent a particular interest area:

- Items in the green boxes are "Realistic" work activities.
- Items in the red boxes are "Investigative" work activities.
- Items in the orange boxes are "Artistic" work activities.
- Items in the blue boxes are "Social" work activities.
- Items in the yellow boxes are "Enterprising" work activities.
- Items in the light blue boxes are "Conventional" work activities.

No reference is made to this color banding in the CIP instructions, so individuals will not be tempted to skew their answers based on their own self impressions (e.g., answering all “social” items “L” because they think of themselves as social people).

<input type="checkbox"/> L	<input type="checkbox"/> ?	<input type="checkbox"/> D	1. Build kitchen cabinets
<input type="checkbox"/> L	<input type="checkbox"/> ?	<input type="checkbox"/> D	2. Guard money in an armored car
<input type="checkbox"/> L	<input type="checkbox"/> ?	<input type="checkbox"/> D	3. Study space travel
<input type="checkbox"/> L	<input type="checkbox"/> ?	<input type="checkbox"/> D	4. Make a map of the bottom of an ocean

Individuals are presented with a **total of 180 items** to complete. The instructions for choosing a response option are:

- If clients "Like" the activity described in an item, they click on the "L" box or type the letter "L."
- If they "Dislike" the activity described, they click on the "D" box or type the letter "D."
- If they are unsure of whether they like or dislike the activity described, they click on the "?" box or type "?" (forward slash key).

Clients are presented with a screen that allows them to practice selecting their answers.

### Possible Client Challenges—Taking the CIP

- **While on the practice screen, individuals may have difficulty figuring out that they are being asked to click on boxes or select the appropriate key on the keyboard.**
  - L If they wait too long, a reminder appears on the screen telling them how to proceed.
- **Users may want to change an answer, but forget how to do so.**
  - L Remind them that they can simply click on an alternate answer to change it.
    - If they are using the keyboard, they can:
      - T use the cursor keys to back up to a question,
      - T use the "page up" key to move to a previous screen, and
      - T use the "page down" key to move to the next screen.
  - L Also remind users that they will be given the opportunity to review all of their answers after they have completed the CIP.
- **Individuals may have a hard time making decisions.**
  - L Tell them to go with their first instincts rather than spending a lot of time thinking about each item. Remind them to select the "?" when they are truly unsure if they would like a given activity. Also remind them not to worry about how much education/training is needed to do an activity or how much money they could make doing an activity.

## 5. O\*NET COMPUTERIZED INTEREST PROFILER RESULTS

This chapter presents the results section of the CIP. Upon completing all 180 questions, users are given the opportunity to:

- Review their **O\*NET Computerized Interest Profiler** results.
- Learn about Job Zones.
- Select a Job Zone.
- Review/receive an occupations report that includes occupations that link to their occupational interest profile (all six scores) and the Job Zone they selected. The occupations presented can be found on the web at **O\*NET OnLine** (<http://online.onetcenter.org>).
- Review their scores and Job Zone.
- Explore their results further.

The following section walks you through these different parts of the results portion of the CIP. A sample screen presenting Interest Profiler Results is shown below:

Here are your Interest Profiler Results!

Realistic- 0  
Investigative- 22  
Artistic- 17  
Social- 4  
Enterprising- 1  
Conventional- 16

**You can think about your interests as work activities you like to do.**

Your interests can help you find occupations you might like to explore. The more an occupation meets your interests, the more likely it is to be satisfying and rewarding to you.

Read on to find out more about your results.

o-net STOP

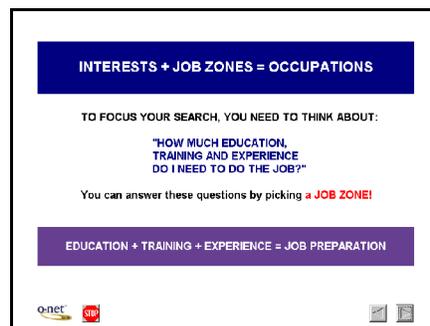
Users are told that their strongest interests are shown in red. Note, however, that all six scores make up the individual's interest profile. The entire profile, rather than just the highest interest scores, is used to identify occupations for the user's occupations report. They can select each area and view a definition, and/or they can choose to get a written printout of their scores and the definitions of each interest area. Encourage them to obtain a written report for their future reference. Remind users that they will need their scores in case they want to come back to the CIP at a later time to learn more about what their scores mean and how to use them to explore careers.



## JOB ZONES

In this section, Job Zones (i.e., levels of preparation) are introduced. What they are, how to pick one, and how they relate to career exploration are described.

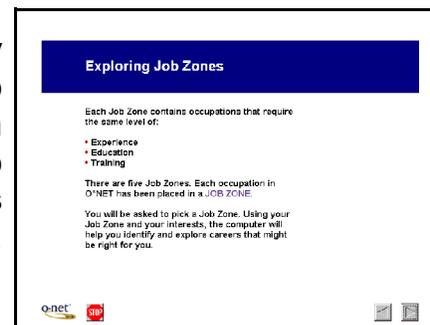
First, the concept of **Job Zones** is presented. There are five Job Zones, each representing a different level of job preparation. The customized list of occupations that clients receive at the end of the CIP is based on their interest profile and the Job Zone they have selected.



Occupations have been assigned to Job Zones based on the amount of education, training, and experience they require. This information is important for clients to consider when exploring careers. It helps them get an accurate picture of how much preparation is required to pursue certain occupations. When exploring careers, it is not enough just to like or be interested in an occupation. You must also consider the amount of:

- education,
- training, and
- experience

needed to qualify for and be successful in occupations.



**Note:** Occupations were placed in Job Zones based on Specific Vocational Preparation (SVP) ratings located in the *Dictionary of Occupational Titles* (DOT; U.S. Department of Labor, 1991a). For a further explanation of this process, see Oswald, Campbell, McCloy, Rivkin, and Lewis (1999).

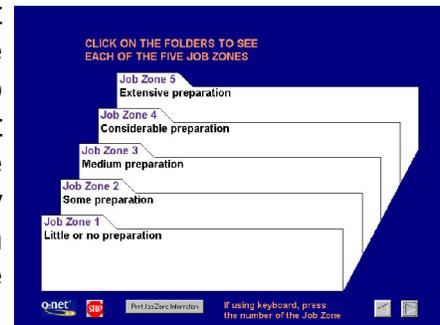
When selecting a Job Zone, clients can think in terms of either the present or the future.

- Clients' Current Job Zone is comparable to the amount of education, training, and experience they have now. They can consider this amount of preparation when exploring careers, or they can use their...
- Future Job Zone—the amount of education, training, and experience they expect to have in the future, after they finish high school, college, or a vocational training program.



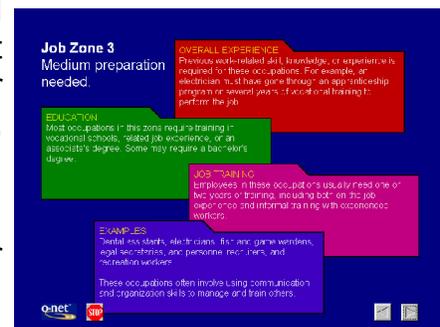
For clients with less work experience, use of their Future Job Zone for exploring careers is probably more appropriate. It will give them broader exploration opportunities and will more accurately reflect their career aspirations. However, the CIP does *not* tell clients which Job Zone type they should use to explore careers. It leaves the choice up to them.

Clients are required to review the information related to at least one Job Zone before selecting one. Encourage clients to read the information presented for all five Job Zones. This will help them get a good feel for the different levels of preparation. Clients are told that they will be able to change the Job Zone they selected later as they continue their exploration process. They also can obtain a printed report that summarizes the Job Zone information.

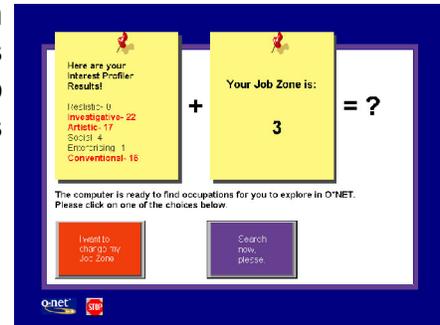


Each Job Zone screen summarizes the overall experience, education, and training associated with that Zone. Example occupations also are provided. For instance, for Job Zone 3 (Medium Preparation Needed), users are informed that:

- Previous experience is generally needed.
- Vocational school training, prior experience, and/or an associate's degree may be required.
- One or more years of job training may be needed.
- Examples of jobs in this Zone include dental assistants, electricians, and personnel recruiters.



After selecting a Job Zone, clients see a summary screen that shows them their scores in each of the interest areas and their Job Zone. They are given the opportunity to change Job Zones again before viewing their occupations report.



### Possible Client Challenges—Job Zones

- **Clients may have trouble understanding the Job Zone concept.**
  - ☞ Before having clients use the CIP, you could explain the concept of Job Zones. Print out the Job Zone screens and walk them through the descriptions, pointing out how the Zones differ. Show them how the levels of preparation increase as you go from Job Zone 1 to Job Zone 5.
  - ☞ Stress to clients that interests must be combined with actual or future work experience, training, and education before suitable occupations can be identified. Explain how Job Zones relate to education and training: the higher the Job Zone, the more education and training you will need. Encourage them to spend time with this material. If they are having a hard time comprehending it, work through it with them.
- **Clients might have a hard time deciding whether to use their Current or Future Job Zone to explore careers.**
  - ☞ Suggest that clients with little work experience, who have not yet decided how much education to pursue, select a Future Job Zone. This will allow them to consider a wider range of occupational goals, and they will get a better understanding of how “higher” Job Zones affect career choices.
- **Clients may have a difficult time understanding the concept of Future Job Zone.**
  - ☞ Encourage clients to think about themselves in the future. What do they want their “occupational lives” to be like? Explain how Job Zones relate to education and training; the higher the Job Zone, the more education and training they will need.
- **Clients might have difficulty distinguishing between Job Zones that are next to each other (e.g., the difference between Job Zones 3 and 4).**
  - ☞ Clients should pay particular attention to the "Overall Experience" category within Job Zones. This section of the definition can help clients figure out the differences among Job Zones.

(continued on next page)

### Possible Client Challenges – Job Zones (continued)

- **Clients might need more familiar examples of occupations that fit into a particular Job Zone to really understand the Job Zone.**
  - ☞ Look in **O\*NET OnLine** and see if you can find other occupations in a particular Job Zone that may be more familiar to clients. Encourage your clients to pay close attention to the information provided for each of the Job Zones. This includes descriptions of the type of experience and education required as well as occupations that might fit in each Job Zone.

## OCCUPATIONS REPORTS

This section introduces the **O\*NET Interest Profiler Occupations Report**, including a description of each part of the report, a discussion of the basis for occupations appearing on the report, and how to move through and print out the report.

When users indicate that they are satisfied with their Job Zone, they receive an explanation of what their occupations report will look like. They are informed that occupations within that Job Zone are presented according to how well they fit the user's interest profile. They also are told that occupations listed with ">>" next to them are their strongest matches. Finally, they are told to explore **O\*NET OnLine** (<http://online.onetcenter.org>) to find out more about the occupations listed. After the explanation screen, the users see their actual occupations report.

O\*NET™ Interest Profiler Occupations Report  
Mary Q. Contrary  
Date: 09-20-2001

Realistic - 20    Artistic - 28    Enterprising - 30  
Investigative - 10    Social - 12    Conventional - 14

Switch to Job Zone: 1 | 2 | 3 | 4 | 5 Job Zone 3: Medium Preparation

O\*NET-SOC Title 9 occupations

27-1022.00	»Fashion Designers
27-1026.00	»Merchandise Displayers and Window Trimmers
39-5012.00	»Hairdressers, Hairstylists, and Cosmetologists
35-2014.00	»Cooks, Restaurant
27-4021.01	Professional Photographers
27-2011.00	Actors
27-2012.04	Talent Directors
27-1013.02	Sketch Artists
41-3011.00	Advertising Sales Agents

o-net STOP Print Report

The Occupations Report presents the following information:

- ▶ The user's name and the date are presented in the upper left-hand corner.
- ▶ Under the date, the user's interest profile is presented. Highest interests are presented above less strong interests.
- ▶ Under the profile, the Job Zone that the user initially selected is presented.

**Note:** Users can change their Job Zone by clicking one of the Switch to Job Zone buttons. When they change their Job Zone, the list of jobs also will change to match the new zone. You should encourage users to change their Job Zone to get a feel for how their occupational choices may change based on how much preparation they are willing to pursue.

- ▶ Under the Switch to Job Zone buttons, the user's list of jobs is presented. The list has two columns:
  - ▶ Column one presents the O\*NET-SOC code for the occupations identified as matching the user's interests and Job Zone. Clients can use the codes to explore occupations in **O\*NET OnLine**.
  - ▶ The next column contains the occupational titles. Again, this information can be used to explore occupations in **O\*NET OnLine**.
- ▶ Notice that a scroll bar is available on the right side of the score report. A heading above the scroll bar presents the number of occupations that appear on the occupations report screen. Only ten occupations appear on the screen at any one time, so users need to use this feature to see all of the occupations if more than 10 have been identified as potentials for exploration.

Occupations are selected based on the correlation between the user's interest profile and each occupation's interest profile (within the Job Zone selected). Only occupations that have a significant correlation are presented. As mentioned previously, some occupations have ">>" in front of their title indicating that they are the strongest matches. In other words, for these occupations the person's interest profile and the occupation's interest profile are highly correlated. For more information on matching procedures, see *Linking O\*NET Career Exploration Tools with O\*NET Occupations* (McCloy, Campbell, Oswald, Lewis, & Rivkin, 1999). A description of the development of the occupational interest profiles is provided in *Development of Occupational Interest Profiles (OIPs) for O\*NET* (Rounds, Smith, Hubert, Lewis, & Rivkin, 1999).

If the user's profile does not correlate significantly with any of the occupational interest profiles, then no occupations appear on the occupations report screen. Instead, users are directed to:

- 1) look at other Job Zones,
- 2) do a new search using a single interest area, or
- 3) consider taking the Interest Profiler over again.

They are directed to move forward to the next screen and select the “Unsure” option, which is related to whether or not they are satisfied with their results. By selecting this option, users will be given suggestions (including those mentioned above) for achieving more satisfying results. It is important to encourage users in this circumstance so that they get the most out of the CIP and don’t give up.

**Note:** Clients can receive a printed copy of the occupations report by clicking the “Print Report” button. The report will first list the occupations from the client’s preferred Job Zone, followed by a listing of the occupations in the remaining four Job Zones. The occupations report also has a separate page that discusses the proper use of the CIP. You should encourage clients to take advantage of the “Print Report” option so they can continue to review their results and discuss them with others following their session.

### **ADDITIONAL RESOURCES: LINKING TO O\*NET OnLine** ( <http://online.onetcenter.org> )

Here clients are instructed to look in **O\*NET OnLine** to find information about the occupations they want to explore. **O\*NET OnLine** contains detailed information on over 900 occupations. Users can obtain descriptions of jobs on a variety of dimensions including worker characteristics and experience requirements, and can link to occupational employment outlook. Clients should begin their **O\*NET OnLine** experience by looking at those occupations identified as having the strongest match to their interests. They then can go on to examine related occupations or even completely different career fields. **O\*NET OnLine** provides information at general and specific levels to suit the needs of many users. For more information about **O\*NET OnLine**, use the contact information provided on page v of this Guide.

**Note:** Clients should be able to use **O\*NET OnLine** on their own for career exploration. You may, however, wish to hold a training session to help them locate the most important information in **O\*NET OnLine** for career exploration.

### **ARE YOU HAPPY WITH YOUR RESULTS?**

This section introduces the options available to clients who are not satisfied with their results.

Before exiting the CIP, clients are asked if they are satisfied with the results they received. Specifically, they are asked:



*Do you think your Profiler results describe your interests?*  
and

*Can you picture yourself working in the occupations listed on your report?*

The purpose of this exercise is to:

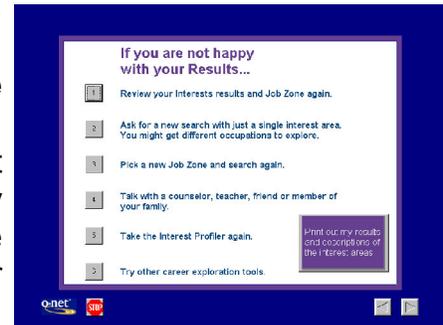
- ▶ Make sure that clients understand that they should experiment with the CIP and try different options, such as alternate Job Zones.
- ▶ Provide options to clients who received no occupations on the occupations report.
- ▶ Provide options to clients who are not satisfied with their results or the occupations listed on their occupations reports.

It is essential that clients realize that their results are not etched in stone. There are ways that they can keep using the CIP to find information that is satisfactory to them. The CIP is a tool that should be used to explore the range of options available to clients. If they feel comfortable with their results, users should indicate this by answering “Yes” to the questions posed. They then will see a concluding screen and exit the program.

However, if clients are unsure of their results (e.g., they don’t like the occupations presented or didn’t receive any), the following options are made available to help them resolve any doubts or questions:

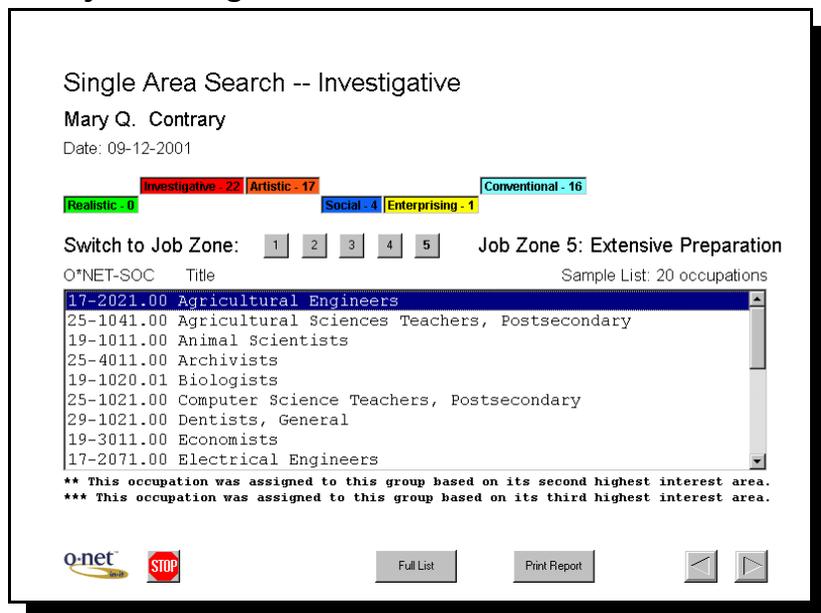
**1. Review your interest results and Job Zone again.**

Clients are shown a summary of their interest results and the Job Zone previously selected. They are allowed to select another Job Zone, explore different occupations, and/or get a printout of their results.



**2. Ask for a new search with just a single interest area.**

When this option is selected, a summary of the client’s results is shown. Each of the six interest areas is available for selection, and the occupations associated with that area and the current Job Zone are listed. Clients also can select a different Job Zone and see occupations related to that interest area that require more or less preparation.



In the example shown, the client has elected to see the jobs associated with the “Investigative” interest area. The screen title has changed to reflect this. The screen shows the Sample List of occupations for this interest area and Job Zone. The Sample List matches the list of occupations included in the score report for the paper-and-pencil O\*NET Interest Profiler. This is a short list that contains a representative sample of occupations for the interest area and Job Zone. Notice that on the bottom of the screen there is a button offering “Full List.” The full list matches the Master List of occupations presented for the paper-and-pencil **O\*NET Interest Profiler**. The Print Report button on the bottom of the screen enables users to print either list.

**Note:** This section of the CIP is useful for those counselors or teachers who want access to electronic replications of the paper-and-pencil IP score reports.

**3. Pick a new Job Zone and search again.**

This option allows clients to select a new Job Zone and see a listing of the occupations that reflect their interests and this new Job Zone. They can begin to figure out how Job Zones, or the level of preparation they wish to pursue, affect their career possibilities.

**4. Talk with a counselor, teacher, friend, or member of your family.**

Clients are advised that talking to someone who knows them may help them better understand their results. Of course, a teacher or counselor who has a background in career counseling can also be of great help.

**5. Take the CIP again.**

Clients are advised that, after a short time, they might want to take the CIP again, especially if they weren’t focused or had trouble understanding the procedures for completing the instrument. While it is probably better to wait a while before taking the CIP again, clients are offered this option immediately.

**6. Try other career exploration tools.**

Clients are advised that other **O\*NET Career Exploration Tools** may help guide them to jobs that they will find satisfying. This section also promotes a whole-person assessment. That is, individuals should use different pieces of information about themselves to explore the world of work.

### **Possible Client Challenges—The Occupations Report**

- **Clients may feel that their results don't reflect their true interests or the occupations that they would like to pursue.**
  - ☞ Remind them that they can review their answers and select different Job Zones or interest areas to see how this affects their outcomes.
- **Users may feel—even after experimenting with the CIP—that their results aren't useful.**
  - ☞ Remind them that the CIP is only a tool. Provide them with other avenues for career exploration, such as **O\*NET OnLine**. If they have strong feelings about the occupations they would like to pursue, they should certainly follow those instincts.

## 6. ALTERNATIVE ADMINISTRATION METHODS

For certain clients, self-administration of the **O\*NET Computerized Interest Profiler** might not be appropriate. You may be working with young clients or those with little experience working with computerized assessment tools. Below, alternative administration methods are discussed. These methods will allow you to help your clients or groups of clients to get the most out of the CIP.

### GROUP ADMINISTRATION

Although designed for individual use, the **O\*NET Computerized Interest Profiler** also is suited to group administration. The term group administration has a variety of definitions that often are dependent on the type of instrument being administered. For the CIP, group administration means that a professional (e.g., counselor, teacher, program leader) directs the administration of the CIP and provides assistance to users. It can include, but is not limited to, the following options:

- You may want to read the instructions aloud as your clients read along at their terminals or work stations. You also can have individuals take turns reading parts of the instructions aloud.
- You can answer clients' questions regarding the CIP instructions, including how to click on boxes, what to think about when completing items, and in what order the items should be completed.
- It may be useful to monitor clients as they complete the CIP items, making sure that they are not having problems working on the computer and that they know how to move back and forth through the instrument.
- You can answer questions about specific items. For example, a client may not understand or be familiar with a particular work activity. When providing clarification, be sure not to influence the client as to whether or not he/she would like or dislike the activity.
- Questions about Job Zones and occupations reports can be answered in a group session. You might want to go over the different sections of the occupations report or talk about options for getting new results (e.g., change Job Zone, do a single interest area search, etc.). Chances are that in a group of users, several people will have the same question about their results.

## **Group Administration of the O\*NET Computerized Interest Profiler Commonly Asked Questions**

### **What locations are better for group administration?**

Just like self-administration, group administration should take place in locations in which individuals will be able to concentrate and focus on the CIP. There must be enough terminals or work stations to allow clients to work individually. A computer lab is ideal for this purpose.

### **When is it appropriate to administer the CIP in a group setting?**

You may want to make the CIP part of a career exploration activity in which clients talk about their results and how the CIP helped them discover important information about themselves. You may want clients to discuss other parts of their lives that reflect their results (e.g., outside jobs, sports they play, volunteer work they are involved with, courses they particularly like). You may think that group administration might be advantageous for certain clients who might require “extra help” to complete the CIP (e.g., clients who may not read at an eighth grade level or who may have limited computer experience). Group administration is appropriate also for individuals who may have some trouble with the English language.

### **How long will it take to conduct a group administration of the CIP?**

Group administration should take about one hour. This includes completing the items and discussing the results.

### **Can group administration be held over two sessions?**

Yes. As with self-administration, we recommend a single session in which clients can complete the instrument and explore their results. However, if this is not possible, you can split the session in two. During the first session, clients can complete the instrument, with the second session devoted to exploring the results. If this course is taken, it is essential that clients' scores be stored where they can be retrieved or that clients print out and keep their results so that they can re-enter their scores without having to complete the CIP again (see Chapter 5 of this Guide for a description of re-entering scores). You may want to keep copies of their results as well and have them for the second session.

(continued on next page)

## **Group Administration of the O\*NET Computerized Interest Profiler Commonly Asked Questions** (continued)

### **Are there certain things I should pay particular attention to during a group administration?**

You should make sure that clients are working independently and not copying one another's answers. Pay attention to all of the individuals in the group to make sure no one is getting lost or falling behind. Ask for questions often. Remind clients that the CIP is not a test. Individuals should take their time and enjoy themselves.

### **How many clients can participate in the CIP group administration at one time?**

The largest number for a group administration should be about 15-20 people. Groups larger than this will be difficult to monitor to ensure that everyone is following along. There is no minimum number of clients for a group administration; a group comprising two people can be of value if they require special attention.

## **COMBINING ADMINISTRATION METHODS**

Another option available to you is to combine administration methods. That is, you might decide to provide assistance to some individuals, or you might have clients take the majority of the instrument on their own and only provide assistance during certain portions of the administration. Two examples of combination strategies that you may want to consider are described below.

### **Provide Assistance to an Individual Client**

You might have clients who have poor reading skills and/or trouble focusing on tasks. For these persons, you could have one-on-one sessions with each of you taking turns reading the instructions. You could help clients complete individual items and/or check their progress periodically to ensure that things are going smoothly. If clients are having too much trouble, the CIP may not be the best instrument for them to use in assessing their occupational interests.

### **Combining Self-Administration and Group Administration Methods**

The **O\*NET Computerized Interest Profiler** is designed to be flexible, so that different methods of administration can be used or combined. It is perfectly acceptable to combine self and group administration methods. For example, you might decide to have clients read the instructions and take the CIP on their own, and then work together as a group to discuss the results and their meaning. The level of assistance you provide a single client or group of clients depends on their capabilities. Based on your experience with the individuals, you can decide what they can do by themselves and where they may need some help.

## 7. CAREER EXPLORATION ACTIVITIES

To help clients better understand their interest results, activities are presented below that you can incorporate into your career exploration and counseling program. These activities can be used individually by clients or in a group setting. Alternatively, you might decide to use a combination method and have clients work on some sections of the activities independently and on other parts in a group.

- **Review CIP items following scoring.**  
After scoring their CIP, clients can go back and look at the work activity items for their interest areas. By reviewing the items, clients can see what they liked and how those work activities relate to their interests. If clients are dissatisfied with their CIP results, they can look at the items for the interest areas that they think might represent them better and determine why they didn't respond more positively to those items.
- **Use different Job Zones and interest areas to explore careers.**  
Clients can try out other Job Zones and interest areas to explore careers. This can help them confirm their results (e.g., they can see that the other interest areas/Job Zones do not contain occupations that they wish to explore), or they might find interest areas/Job Zones that they do want to use to explore occupations. Finally, this activity can give them a broader picture of the world of work.
- **Explore occupations using O\*NET OnLine.**  
Clients can explore their occupations using **O\*NET OnLine**, <http://online.onetcenter.org>. They can look at the **Snapshot** of their occupations to find out what the most important attributes are for performing that occupation. They can do a **skills search** to see if any of the occupations that matched their interest profile also match their skills. They can explore **related occupations** to see if they can find more occupations they may wish to explore. **O\*NET OnLine** provides a myriad of career exploration opportunities that can be used to help clients get the most out of their **O\*NET Computerized Interest Profiler** results.
- **Use America's Job Bank (AJB) and other resources to look for jobs.**  
AJB, which can be found on the Internet at <http://www.ajb.org>, uses the O\*NET classification system. Clients can see what type of job openings exist for occupations they have selected to explore. If clients do not have access to the Internet through their school or home, they can go to their local employment service office or library to gain access. Clients also can try to find their occupations in the classified section of a newspaper.

- **Use America's Career InfoNet (ACINet) to find employment trends and wages related to occupations.**

ACINet can be found on the Internet at: <http://www.acinet.org>. It allows users to see typical wages and employment trends for occupations in different areas of the country. Clients also can learn about cost of living data locally and nationally and retrieve state profiles with labor market conditions.

- **Rate occupations using the RIASEC interest areas.**

Provide clients with a list of occupations. Have each client assign a RIASEC rating to each occupation. In a group, have clients discuss the characteristics about each job that caused them to assign their rating.

- **Identify other life activities that relate to interests.**

Have clients list other activities that they participate in related to their interests. For example, what clubs or teams do they belong to? What activities do they like doing with family or friends? Are there particular school courses that they like?

- **Clients can try their results out.**

Clients can visit an individual working in one of the occupations they are thinking of pursuing and see what the person does on the job. They can talk to employees in the job to learn about the employees' interests and how their interests compare to those of the client. You might want to have clients prepare a list of questions to ask employees.

If clients can't directly visit an individual on the job, they could find a contact person in a job they wish to pursue and talk to the person to determine:

- 1) what the person likes and dislikes about the job,
- 2) what the person does on the job, and
- 3) what the person's interests seem to be.

## 8. OVERVIEW OF HOLLAND VOCATIONAL PERSONALITY THEORY

The **Computerized O\*NET Interest Profiler** is compatible with Holland's (1985a) Theory of Vocational Personality. This is one of the most widely accepted approaches to vocational choice. According to the theory, there are six vocational personality types. Each of these six types and their accompanying definitions are presented below.

### **Realistic:**

People with **Realistic** interests like work activities that include practical, hands-on problems and solutions. They enjoy dealing with plants, animals, and real-world materials like wood, tools, and machinery. They enjoy outside work. Often people with Realistic interests do not like occupations that mainly involve doing paperwork or working closely with others.

### **Investigative:**

People with **Investigative** interests like work activities that have to do with ideas and thinking more than with physical activity. They like to search for facts and figure out problems mentally more than to persuade or lead people.

### **Artistic:**

People with **Artistic** interests like work activities that deal with the artistic side of things, such as forms, designs, and patterns. They like self-expression in their work and prefer settings where work can be done without following a clear set of rules.

### **Social:**

People with **Social** interests like work activities that assist others and promote learning and personal development. They prefer to communicate more than to think of solutions or work with objects, machines, or data. They like to teach, give advice, help, or otherwise be of service to people.

### **Enterprising:**

People with **Enterprising** interests like work activities that have to do with starting up and carrying out projects, especially business ventures. They like persuading and leading people, making decisions, and taking risks for profit. These people prefer action more than thought.

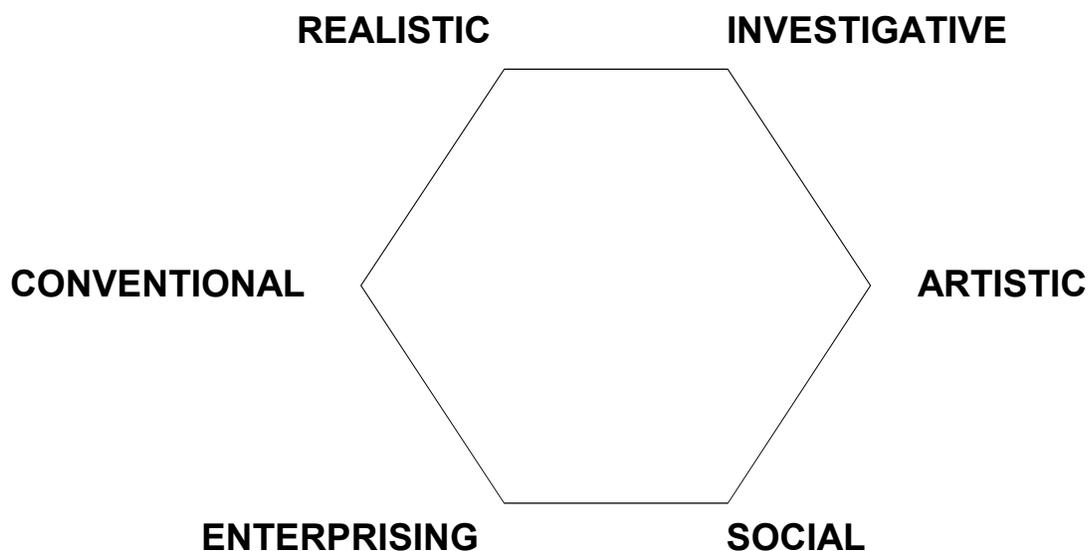
### **Conventional:**

People with **Conventional** interests like work activities that follow set procedures and routines. They prefer working with data and detail more than with ideas. They prefer work in which there are precise standards more than work in which you have to judge things by yourself. These people like working where the lines of authority are clear.

According to Holland (1985a), most individuals can be described by one or more of these six personality types, frequently summarized as R-I-A-S-E-C (the first letter of each personality type). Additionally, the theory proposes that there are six corresponding work environments (or occupational groups) and that people seek out work environments that match their personality types. The better the match individuals make, the more satisfied they will be with their job.

It is important to note that an individual's interests may not be described by just one of the six interest categories. In fact, Holland suggests that most people will have interests in several of the areas, but that they probably will have one interest area that is stronger than the others. Like people, environments or occupations may not be best represented by one interest area. They also may be represented better by several areas. Because of this heterogeneity in the interests of people and occupations, several interest areas usually serve as the most appropriate representation of an individual's interests, as well as the interests that a work environment (or an occupation) satisfies. Thus, you will see that the CIP allows clients to use scores from all six interest areas (i.e., their entire interest profile) to explore occupations. The occupational profiles provided in the O\*NET database are based on compilations of all six personality types. O\*NET OnLine presents information on all six interest areas in the Details function and on primary and secondary interest codes in the Snapshot function (see O\*NET OnLine at <http://online.onetcenter.org>).

Holland's theory also suggests that the RIASEC areas are related in a hexagonal fashion based on their similarity to one another. The figure below illustrates the relationships among interest areas.



According to Holland, adjacent interest areas are most similar to one another (e.g., Artistic with Investigative and Social). Interest areas that are opposite to one another (e.g., Enterprising and Investigative) are most dissimilar. Interest areas that are alternate to one another (e.g., Realistic and Enterprising or Investigative and Social) have an intermediate relationship. It is important to understand this hexagonal relationship because, ideally, individuals will want to explore occupations that have the strongest relationship with their primary interest area, rather than the weakest. For example, a person with strong Artistic interests would probably be most satisfied with strong Artistic occupations (e.g., painter, dancer, actor) rather than a strong Conventional occupation (e.g., typist, word processor, mail room clerk). The next two occupational groups that this person would find satisfying (after Artistic occupations) would likely be Investigative or Social occupations.

The purpose of the CIP and its corresponding occupational lists is to help clients match their personality type (interest area) to corresponding work environments (occupations). The better the match, the more likely that clients will be satisfied with the occupations they choose to explore.

For more information on Holland's vocational theory, read *Making Vocational Choices: A Theory of Vocational Personalities and Work Environments* (Holland, 1985a).

## 9. SAVING CLIENT DATA - NETWORK VERSION

The **O\*NET Computerized Interest Profiler** network version has a built-in system that facilitates the storage and retrieval of clients' interest information. This section will describe:

- a few potential uses of the data,
- the file where the data is stored, and
- the “*read me*” file the CIP provides to help counselors and administrators become familiar with the structure of the data file.

### POTENTIAL USES OF CIP DATA

As a counselor or administrator, there are a number of reasons why you may want to store and have access to your clients' interest data. In order to help clients see if their interests have evolved or changed, you may want to have your clients take the CIP at two different points in time and compare their interest results. In addition, if you have a copy of your clients' results and they should lose or misplace their occupations report, they will be able to avoid having to take the CIP over again. Finally, the CIP's data file is useful for vocational psychologists and other researchers who seek to gather data on interests through research studies.<sup>1</sup>

### THE CIP'S DATA FILE

When the CIP Network Version is installed onto your computer, a file called IPDATA.TXT is created. The location of the file can be specified when you are installing the CIP (for a detailed discussion of installation issues related to a network, see the Appendix). IPDATA.TXT will contain the answers and summary scores of each person who completes the CIP.<sup>2</sup>

### “READ ME” FILE DESCRIBING IPDATA.TXT

When the CIP Network Version is installed onto your computer, a “read me” file called IPReadme.txt is created. In addition, an icon labeled Interest Profiler Readme appears next to the CIP icon, providing easy access to the “read me” file. The file provides an overview of the IPDATA.TXT file, including that it is an ASCII file, comma delimited, and that it stores each client's record in sequential order.

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<sup>1</sup> Note: It is important to follow the American Psychological Association's guidelines on confidentiality when conducting research studies using the CIP.

<sup>2</sup> If a client exits before completing the CIP, a warning will appear if he or she has not proceeded far enough in the program to add data to the data file.

## 10. O\*NET COMPUTERIZED INTEREST PROFILER DEMONSTRATION VERSION

A demonstration version of the **O\*NET Computerized Interest Profiler** is available. This version of the CIP has three additional “Quick” keys that are designed to facilitate a quick navigation of the program. For example, there is a Quick key located on the screen that asks clients to enter their name. If the Quick key is clicked, dummy information is entered into the entry fields. The user then can continue quickly moving through the rest of the CIP program. Listed below are the CIP screens that have the Quick key option in the demonstration version:

- About You (name screen)
- Instrument (question screen—see screen below)
- Job Zone (five Job Zone folders—Quick key in upper right hand corner)

The screen shown here is the first page of the CIP instrument. Notice the “Test - Quick” button at the bottom center of the screen. By selecting this option, choices will be made for you so that you don’t have to go through all 180 items while you are demonstrating the CIP for a client or other interested party.



This version of the CIP may be of use to counselors/administrators who are first learning about the CIP, or to individuals who are giving presentations in which they wish to demonstrate the CIP quickly.

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## 11. WHERE CAN I GET MORE HELP WITH USING THE O\*NET COMPUTERIZED INTEREST PROFILER?

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For more information about the **O\*NET Computerized Interest Profiler** and its occupations report, you can contact the National Center for O\*NET Development at:

Internet: <http://www.onetcenter.org>

e-mail: [onet@ncmail.net](mailto:onet@ncmail.net)

regular mail: Customer Service  
National Center for O\*NET Development  
Post Office Box 27625  
Raleigh, NC 27611

fax: (919) 715-0778

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## 12. DEVELOPMENT OF THE O\*NET COMPUTERIZED INTEREST PROFILER: AN OVERVIEW

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This part of the User's Guide presents a broad overview of the procedures implemented to develop the **O\*NET Computerized Interest Profiler** (CIP). The CIP was created to take advantage of available computer technology to:

- 1) facilitate the tool's use, and
- 2) meet the needs of the variety of programs (e.g., schools, employment service offices, out-placement programs) that will incorporate the CIP into their career exploration services.

The CIP was developed to be parallel to the paper-and-pencil **O\*NET Interest Profiler** (IP). The goal was to have the CIP and IP be interchangeable. This would allow clients to use one or both instruments, depending on their particular needs. One scenario, for example, could involve students taking the paper-and-pencil IP at home. Then, later on, they could enter their scores into a CIP that had been loaded onto one of the school's computers. This would allow them to take advantage of the CIP's dynamic occupations report section to explore possible occupations.

As you will see from the information presented, the CIP was based on the development of the paper-and-pencil **O\*NET Interest Profiler**. The IP served as the foundation for the development of the CIP. Thus, many of the instructions, as well as all of the items that were developed and tested for the IP, were included in the CIP.

In the sections that follow, ten phases of instrument development are presented. Phase 1 through Phase 8 discuss the development of the IP. It is important for you to be familiar with this information because, as stated above, the IP served as the foundation for the CIP. To create the CIP, two additional research phases were undertaken. During Phase 9, the software design of the CIP was developed. During Phase 10, a study was conducted to evaluate the reliability and validity of the CIP, as well as to evaluate its comparability with the IP.

The development information is provided at a fairly basic level of technical detail to give the wide range of users of the CIP an introduction to the technical underpinnings of the instrument. It is important to have a fundamental understanding of the CIP technical characteristics, so you are comfortable with the psychometric qualities of the instrument and can use the CIP in a manner that is most beneficial to your clients. The goals of the CIP development project and the major instrument development phases are summarized in the following sections. To gain a more thorough understanding of the CIP development, you can read the *Development of the O\*NET Interest Profiler* (Lewis & Rivkin, 1999),

*O\*NET Interest Profiler: Reliability, Validity, and Self-Scoring* (Rounds, Walker, Day, Hubert, Lewis, & Rivkin, 1999), and *O\*NET Computerized Interest Profiler: Reliability, Validity, and Comparability* (Rounds, Mazzeo, Smith, Hubert, Lewis, & Rivkin, 1999).

## **PRIMARY GOALS OF CIP DEVELOPMENT**

The CIP was developed to serve a variety of programs within the employment and training community that provide career exploration and counseling services to clients. Specifically, four primary goals were considered in developing the CIP:

- 1) Develop an instrument with strong technical characteristics that would provide clients with accurate and useful information.
- 2) Develop a fair and unbiased instrument that would serve the needs of clients from a variety of ethnic, cultural, and socioeconomic backgrounds. Every effort was made to ensure that the instrument would be helpful to clients with different backgrounds.
- 3) Develop an instrument that included items representing the entire world of work. This would help ensure that the instrument would provide useful information to individuals with different work-related goals and interests.
- 4) Develop an instrument that could be used as a self-assessment tool that individuals could self-administer, self-score, and self-interpret. This self-assessment instrument would help empower clients to take control of their career exploration efforts. Of course, the instrument also could be used by counselors with clients in a one-on-one or group setting.

These goals were considered in each of the research phases conducted to develop the CIP. In the next section, each of these phases is introduced, and the procedures conducted are summarized.

## **DEVELOPMENT PHASES**

A total of ten development and research phases were involved in the creation of the CIP. Eight phases were conducted in support of the development of the IP:

- 1) Review of Existing DOL Interest Instruments,
- 2) Review/Revision and Tryout of Existing Items,
- 3) Item Taxonomy Development,
- 4) Placement of Retained Items and the Creation of New Items,
- 5) Item Screening Process,
- 6) Item Tryout and Scale Development,

- 7) Format Design, and
- 8) Evaluation of Reliability, Validity, and Self-Scoring.

After the IP was developed, two additional phases were conducted to create the computerized version of the instrument:

- 9) Software Design, and
- 10) Evaluation of the Reliability and Validity of the CIP and Comparability with the IP.

Each of these phases is briefly presented. The purpose, major steps, and important outcomes are described. For more detailed technical information regarding the procedures used and the results of each phase, see the following technical reports: *Development of the O\*NET Interest Profiler* (Lewis & Rivkin, 1999), *O\*NET Interest Profiler: Reliability, Validity, and Self-Scoring* (Rounds, Walker, Day, Hubert, Lewis, & Rivkin, 1999), and *O\*NET Computerized Interest Profiler: Reliability, Validity, and Comparability* (Rounds, Mazzeo, Smith, Hubert, Lewis, & Rivkin, 1999).

### **PHASE 1: REVIEW OF EXISTING DOL INTEREST INSTRUMENTS**

Before developing the **O\*NET Interest Profiler**, existing DOL interest instruments (e.g., USES Interest Inventory, USES Interest Checklist, Job Search Inventory) were reviewed to determine if they were currently sufficient or could be easily updated to serve as DOL's primary interest instrument. The review indicated that all of the instruments had problems, including technical insufficiencies and out-dated items and format, that would make it difficult to resurrect any of them to serve the needs of the employment and training community. However, all of the instruments did have individual items that could be used as a starting point for the new DOL instrument, the **O\*NET Interest Profiler**.

### **PHASE 2: REVIEW/REVISION AND TRYOUT OF EXISTING ITEMS**

The purpose of this phase was to review items from existing DOL instruments and to consider them for possible inclusion in the new instrument. From a pool of 453 existing items, 281 were retained, and an additional 288 new items were generated based on the content of existing items. These 569 items were included in a pilot test with clients from a variety of backgrounds (e.g., age, education, race, socioeconomic status, gender) to examine endorsement rates. Items with low endorsement rates were dropped, as well as items with duplicate content, resulting in a pool of 532 items.

### **PHASE 3: ITEM TAXONOMY DEVELOPMENT**

A taxonomy was created to provide structure to the process of developing and selecting items for the IP, helping ensure that a variety of items representing the world of work would be included in the final instrument. Once the taxonomy was developed, the pool of items generated from Phase 2 would be placed into the structure. Then, areas within the taxonomy that did not have enough items would be identified, indicating that new items would have to be developed.

The six RIASEC constructs served as the over-arching structure of the taxonomy. Within each RIASEC construct, work content areas were identified. These areas were derived from the 66 work groups contained in the *Guide for Occupational Exploration* (U.S. Department of Labor, 1979), which is very representative of the world of work. Each of the 66 areas was assigned to one of the six RIASEC categories, based on expert judgements. Additionally, for each RIASEC construct, five levels of training requirements were identified to help ensure that items were developed to represent the variety of complexity in the world of work. The training levels were a modified form of the Specific Vocational Preparation Scale (SVP; U.S. Department of Labor, 1991b), which focuses on the amount of time required to learn the techniques, acquire the information, and develop the skills to perform a job. The Modified SVP Scale is presented in Figure 2 at the end of this document. Lastly, based on a literature review and the purpose of the IP, description of work activities was selected as the type of item to be developed.

Item development targets for the taxonomy were set at a minimum of 100 items per RIASEC construct, with equal representation for each work content area. These numbers were set fairly high because it was estimated that a large number of items would fail to pass a variety of later development phases (e.g., Item Screening and Item Tryout).

### **PHASE 4: PLACEMENT OF RETAINED ITEMS AND THE CREATION OF NEW ITEMS**

#### **Placement of Items**

Each of the 532 items in the pool derived from the initial pilot study conducted during Phase 2 was placed within the taxonomy. A team of four judges was trained in Holland's (1985a) vocational personality theory and the taxonomy. Judges reviewed the items and independently assigned them to one of the work content areas within a RIASEC construct. Assignment disagreements were flagged, discussed, and resolved. After the placement of the items was complete, the coverage of the taxonomy was examined. Areas that did not have enough items to meet the taxonomy targets were identified for new item development.

### **Development of New Items**

A team of four item writers was trained in Holland's (1985a) vocational personality theory and the taxonomy. Each item writer was requested to write new items that met the following criteria:

- 1) filled in areas of the taxonomy that did not meet minimum goals,
- 2) were descriptions of work activities,
- 3) increased the representation of training-level requirements found within the RIASEC construct,
- 4) were inoffensive to individuals and subgroups,
- 5) contained vocabulary comprehensible to individuals with an eighth grade reading level,
- 6) would elicit an endorsement rate that falls between 10 percent and 90 percent,
- 7) would likely reduce spurious gender and racial/ethnic endorsement rate differences, and
- 8) would be familiar to individuals from a variety of settings, including:
  - a) entry level and career transition counseling settings;
  - b) urban, rural, and suburban settings; and
  - c) nationwide regional settings.

All new items were reviewed and edited by the team of item writers.

### **Pilot Study**

A total of 272 new items was developed, resulting in a pool of 804 (532 items from Phase 2 plus 272 new items). These items were included in a small pilot test with clients from a variety of backgrounds (e.g., age, education, employment status). Items with extreme means, large gender differences, or large racial/ethnic differences were removed. Priority was placed on eliminating items with similar or duplicate content. After this phase, a pool of 776 items existed.

### **PHASE 5: ITEM SCREENING PROCESS**

The pool of 776 items underwent a comprehensive screening process designed to remove items that failed to meet the rigorous standards for inclusion in the **O\*NET Interest Profiler**. Each item was required to pass the seven screens presented below to be included in the next phase of the instrument development.

#### **Retranslation**

This screen was conducted to ensure that items truly represented their intended RIASEC construct. Five expert judges in Holland's (1985a) vocational personality theory received a pool of items with no indication of the construct or work content area

each item was intended to represent. Judges independently assigned each item to a RIASEC construct. Following the assignment task, judges discussed assignment differences, recommended item alterations, and finalized all ratings. Items were retained when at least four of the five judges agreed on assignment.

### **Sensitivity**

The purpose of this screening was to ensure that items would not be offensive to particular segments of the potential user population. A panel of six individuals representing diverse racial/ethnic and gender groups was convened. The protocol for the screen was derived from guidelines developed by the Educational Testing Service (1987) along with a review of the sensitivity procedures used in the development of the **O\*NET Ability Profiler** (Mellon, Daggett, MacManus, & Moritsch, 1996).

Panel members reviewed each item for possible bias against or offensiveness to racial, ethnic, or gender groups. The panel concluded with a list of suggested item revisions and deletions that were incorporated within the item pool.

### **Comprehensibility**

The estimated range of education for potential clients of the **O\*NET Interest Profiler** begins at the junior high school level—thus, items must be comprehensible to these users. An eighth grade reading level was selected as the goal for the items. *The Living Word Vocabulary* (Dale & O'Rourke, 1981) was used to determine the grade level appropriateness of the vocabulary present in each item. Two sets of inspectors independently identified the grade level assigned to all words present in the pool of items.

All items with words exceeding an eighth grade level were identified. For each of these items, one of the following actions was taken:

- 1) inappropriate grade-level words were replaced with synonyms with a lower grade-level designation,
- 2) items were entirely rewritten, or
- 3) alterations of the items were overruled by a team of four judges.

### **Familiarity**

The work activities described by the items within the final version of the instrument should be familiar to the entire range of potential clients served by workforce investment agencies and initiatives. Eight focus groups were conducted in four regions of the country to determine if the items were indeed recognizable by different segments of the ETA client community. The groups were drawn from employment service offices, community colleges, and technical/trade schools located in urban, suburban, and rural sites. A total of 254 individuals from a variety of backgrounds (e.g., age, education, employment status) participated. Each participant rated the familiarity of the work activities. Items that individuals were not able to recognize were eliminated.

### **Training Requirement**

This screening was conducted to ensure that items represented the broad range of training requirements specified by the taxonomy. Occupational analysts with expert knowledge of the Specific Vocational Preparation scale (U. S. Department of Labor, 1991b) were trained on the use of the Modified SVP scale (see Phase 3 for a description). Each analyst rated the amount of vocational training required to perform the work activity described by the items. The rating of training level was used to remove items from work content areas of the taxonomy that were over-represented. The goal was to maximize the variety of training levels represented by items within each RIASEC construct.

### **Duplication**

The purpose of this screening was to eliminate items with identical or nearly identical content. A team of inspectors reviewed the pool of items to ensure that nearly identical work activities were not present. For example, "type a memo" and "type a letter" would be considered nearly identical and only one would be retained.

### **Copyright**

To avoid copyright infringement, potential IP items were compared to items widely used in existing interest instruments. Items were compared with those in the: 1) Interest-Finder (US Department of Defense, 1995), 2) Self-Directed Search (Holland, 1985b), 3) Strong Interest Inventory (Hansen & Campbell, 1985), and 4) UNIACT-R (American College Testing Program, 1995).

Two inspectors independently identified duplicate and near duplicate items. Agreement between the inspectors was extremely high, with the few discrepancies being resolved by the team of inspectors. All items that represented potential copyright infringements were removed.

## **PHASE 6: ITEM TRYOUT AND SCALE DEVELOPMENT**

A total of 226 items failed to pass the seven-stage screening process, resulting in a pool of 500 items. A large scale study was conducted to gather information on the psychometric characteristics of the 500 items left in the tryout pool. This information would serve to identify those items most likely to constitute an **O\*NET Interest Profiler** with high reliability, low gender and racial/ethnic biases, and strong evidence of construct validity. In addition, the Interest-Finder (Defense Manpower Data Center, 1995) was administered to allow for a comparison between the newly created **O\*NET Interest Profiler** and an established interest instrument. The Interest-Finder is a vocational interest assessment instrument developed by the Defense Manpower Data Center for use in the ASVAB Career Exploration Program, a national testing program used annually in more than 16,000 schools across the United States.

## **Sampling Plan**

The sampling plan for this study attempted to target groups of clients most likely to use the **O\*NET Interest Profiler** upon its completion. Groups identified included: 1) unemployed workers, 2) junior college and technical/trade school clients, 3) high school clients, 4) college clients, and 5) workers in transition (employed workers looking for different jobs/careers). The sampling plan also called for a high proportion of minority participants, an equivalent number of participants from each gender, and participants drawn from a variety of regions across the United States.

## **Participants**

Data collection sites included employment security offices, high schools, junior colleges, technical/trade schools, universities, and other government agencies located in six states across the country (Florida, Michigan, New York, North Carolina, Texas, and Utah). A total of 1,123 participants provided useable responses. The sample consisted of approximately equal numbers of males and females, a high degree of ethnic diversity, a broad distribution of age groups, and represented a variety of education and employment situations.

## **Procedures**

Participants were administered an **O\*NET Interest Profiler** and an Interest-Finder in a counterbalanced order. The **O\*NET Interest Profiler** consisted of 500 tryout items. In addition, each participant completed a brief demographics questionnaire, along with a comment sheet eliciting feedback regarding the **O\*NET Interest Profiler**.

## **Item Analyses**

A set of general item-level screens were conducted to eliminate items with extremely low and high endorsement rates, items with large differences in endorsements between male and females, items with large differences between racial/ethnic groups, and items that did not correlate highly with their intended scale. An item pool of 461 items was retained after these screens.

## **Scale Analyses**

The purpose of this stage of the analyses was to select from the pool of items a total of 180 items that would create six internally consistent scales which:

- 1) demonstrated strong conformity to the hexagonal model of Holland's (1985a) theory of vocational interests,
- 2) contained maximum training level and occupation representation, and
- 3) minimized gender and racial/ethnic endorsement rate differences.

Based on their correlation with the six RIASEC scales, items were rank ordered in terms of their conformity to the structure of the hexagonal model. The structure specifies that an item should correlate most highly with its target scale (i.e., the scale it was intended to measure), next strongest with its adjacent scales, less strongly with

its alternative scales, and least strongly with its opposite scale (for an overview of the Holland model, see Chapter 8 of this Guide).

Items were eliminated if they correlated less with their target scale than with another scale. Then, four judges with psychometric backgrounds, as well as training in Holland's (1985a) vocational theory and the **O\*NET Interest Profiler** taxonomy, independently made qualitative selection judgements based on the following information:

- 1) item-to-scale correlations,
- 2) gender and racial/ethnic endorsement rate differences,
- 3) training level requirement ratings, and
- 4) work content area assignments.

Judges discussed their respective selections and agreed on an initial selection of 30 items per scale.

Finally, starting with the initial 30-item scales, different item combinations within scales were examined to maximize the empirical relationships of items within scales, as well as to minimize the relationship of each item with non-target scales. For example, an item was replaced if its removal significantly increased the scale's internal reliability.

### **Characteristics of Scales/Instrument**

Six scales composed of 30 items each were finalized. Descriptions of the scales and instrument are provided in the following sections.

#### *Taxonomy Coverage*

An extremely wide representation of work activities was achieved. One or more items were present in approximately 80% of the work content areas of the taxonomy.

Large differences in the average level of training requirement for each scale existed. Differences in scale training levels may be due to inherent characteristics of the RIASEC constructs themselves. However, the number of training levels within each scale with a minimum of one item was high. In addition, the instrument as a whole had good representation of each training level.

#### *Psychometric Characteristics*

All six scales demonstrated a high degree of internal consistency reliability, with coefficient alphas ranging from .95 to .97. The means, standard deviations, coefficient alphas, and scale intercorrelations for the **O\*NET Interest Profiler** and Interest-Finder are reported in Table 1. The rank order of the scale means for the two measures are quite different (e.g., the Enterprising Scale is ranked fourth in the **O\*NET Interest Profiler**, while it is ranked first in the Interest-Finder). Possible explanations for these differences include a varying degree of training level/complexity between the two instruments and format differences, such as:

- a) presence of construct labels and definitions,
- b) use of different item types (e.g., work activity statements versus activities, training, and occupational titles),
- c) response format differences, and
- d) scale format differences.

Although differences exist between the **O\*NET Interest Profiler** and Interest-Finder, examination of the instruments' scale intercorrelations reveals a very high correlation between corresponding scales, ranging from .71 (Enterprising) to .86 (Conventional), with a median value of .82. Correlations between **O\*NET Interest Profiler** scales and noncorresponding Interest-Finder scales were much lower, ranging from .30 (IP Social and IF Realistic, IP Conventional and IF Realistic) to .62 (IP Enterprising and IF Social), with a median value of .46. Overall, the correlational relationships between the two instruments provide evidence of both convergent and discriminant validity.

#### *Gender and Racial/Ethnic Bias*

In an attempt to reduce the likelihood of the **O\*NET Interest Profiler** leading to restrictive career options for particular subgroups, an effort was made to select items with similar endorsement rates between groups (e.g., male and female). It was important to evaluate the extent to which efforts at the item level transferred into results at the scale level. A balanced scale indicates that the proportion of people from two sub-groups who endorse a scale is relatively similar.

For both the **O\*NET Interest Profiler** and Interest-Finder, raw score means of subgroups were examined. Gender balance was evident in both instruments, with the exception of the Realistic Scale. For both instruments, a dissimilar proportion of males was likely to endorse the items within the Realistic Scale. The lack of balance for the Realistic Scales may be reflective of the traditional gender differences that exist within our society.

Balance between White Non-Hispanics and African Americans was evident in both measures, with the exception of the **O\*NET Interest Profiler's** Enterprising Scale. For this scale, a higher proportion of African Americans was likely to endorse the items within the Enterprising Scale. Higher mean scale scores for African Americans also existed in many of the other scales, (e.g., IF Conventional, IP Social, IF Enterprising, IP Conventional, IF Social), indicating an overall positive response bias. In terms of career counseling, the ramifications of this occurrence appear to be minimal, with African Americans indicating stronger preference for all six RIASEC interest areas. Balance between White Non-Hispanics and Hispanics was evident in both measures.

## PHASE 7: FORMAT DESIGN

The goals of the format design of the **O\*NET Interest Profiler** were to develop an instrument that:

- 1) could be reliably hand-scored by clients taking the instrument on their own;
- 2) would gather information necessary to produce accurate, reliable interest profiles;
- 3) would allow for review of work activities within a RIASEC interest area once the instrument was completed; and
- 4) would lend itself to an equivalent computerized form.

### Item Response Format

Several different item response formats were considered. The following 3-point response format was selected: *Like*, *Unsure*, *Dislike*. This format was seen as advantageous for three primary reasons:

- 1) The format was well suited for hand scoring. Participants are responsible simply for adding up the number of *Likes*.
- 2) The *Unsure* choice was viewed as an important option. An *Unsure* response is a meaningful option for clients who are not certain whether they like or dislike a particular work activity. However, the inclusion of this response in the scoring system would make self-scoring of the paper-and-pencil version of the IP difficult. Thus, the *Unsure* choice is not scored.
- 3) This item format maintains continuity with the formats of existing DOL interest instruments, allowing for a smoother transition for those agencies currently using DOL instruments.

### Instrument Layout

A wide variety of item layouts was explored. The final layout is a presentation of 15 columns of 12 interest items each. Within each column, sets of items representing one of the interest constructs are presented in the following order: Realistic, Investigative, Artistic, Social, Enterprising, Conventional. Horizontal color bands distinguish the items representing each RIASEC construct. The color bands serve to aid in the scoring of the instrument, as well as allow clients to go back and review the work activity statements within a particular RIASEC construct once they have completed the instrument. In addition, items representing the same scale are not all presented together. This format is likely to reduce a general response bias (i.e., the endorsement of the items of an interest area in a particular fashion based on an initial impression or tendency).

### **Client Feedback on Instrument Layout**

A small pilot test was conducted to evaluate individuals' abilities to understand and score the **O\*NET Interest Profiler**. In addition, two sets of scoring directions containing different emphases on visual instructions were tested.

A total of 80 individuals from a variety of backgrounds (e.g., age and employment status) participated in the pilot. Individuals with lower educational levels were purposefully over-sampled in an attempt to create a more rigorous test of the instrument's directions and scoring procedures. There was, however, a very low representation of minority groups.

Participants completed one version of the **O\*NET Interest Profiler** (i.e., Nonvisual Instruction or Visual Instruction) along with a brief demographics questionnaire. In addition, they filled out a questionnaire eliciting feedback about their understanding of the instrument, the process they followed to score the instrument, and their overall impression of the instrument. After completing the instrument, individuals participated in focus group discussions, enabling more qualitative information to be gathered.

Differences in scoring error rates between the two forms of the instrument were negligible. In addition, feedback generated from the questionnaire revealed little difference between the two forms. Information gathered from focus groups did reveal, however, that some participants relied on the visual directions to understand the instrument, while others found them distracting. Based on the feedback from the pilot study, a new version of the **O\*NET Interest Profiler** was created which placed a "middle of the road" emphasis on visual directions.

Regardless of the version of the instrument they were administered, participants provided overwhelmingly positive feedback related to the **O\*NET Interest Profiler**, with 89% of the participants expressing a desire to take the instrument again when its development is complete, and 81% stating they would recommend the instrument to their friends.

### **PHASE 8: EVALUATION OF RELIABILITY, VALIDITY, AND SELF-SCORING**

A large scale study was conducted to examine the psychometric properties—reliability and validity—of the final form of the instrument, as well as to evaluate the self-scoring aspect of the instrument. The study required gathering information from three groups of individuals with diverse backgrounds.

#### **Participants and Design**

The majority of the data were gathered from 1061 individuals from employment service offices, junior colleges, trade schools, and other government agencies located in four regions across the United States: Michigan, New York, North Carolina, and Utah. These participants were administered, in a counter-balanced fashion, the **O\*NET Interest Profiler** and the Interest-Finder. Clients were administered a non-scoring version of one of the instruments first, followed by a version that they would score.

This was done so that the actual scoring and interpretation of the instrument would not bias the responses to the second measure.

Two groups of individuals also participated in the test-retest portion of the study. Junior college/vocational students and college students were administered one of the instruments on two separate occasions, with approximately one month elapsing between the two administrations. The **O\*NET Interest Profiler** was administered twice to 132 participants, and the Interest-Finder was administered twice to 120 participants.

### **Self-Scoring**

The innovative self-administering, self-scoring format of the **O\*NET Interest Profiler** was supported. The results indicated that the format (i.e., items of each interest area presented to clients in a mixed order, rather than grouped together by interest area) reduced the presence of a general response bias found in interest assessment inventories (see the Format Design section of this Guide for a brief discussion). An examination of clients' ability to self-score the instrument revealed a low percentage of scoring errors and, more importantly, a minimal presence of individuals identifying the wrong top interest due to scoring errors. Participants viewed the instrument as easy to score, interesting, and beneficial.

### **Reliability**

The internal consistency estimates across all the RIASEC scales were very high (ranging from .93 to .96), indicating that each of the scales "hang together" well. The instrument also had a high estimate of test-retest reliability (ranging from .81 to .92), providing evidence that clients' scores are likely to be similar if the instrument is taken more than once within a short period of time.

### **Validity**

Similarities to the Interest-Finder provided evidence of convergent validity for the **O\*NET Interest Profiler**. A principal components analysis indicated that the two instruments had similar factor structures. Equivalent scales from both measures were highly correlated, also supporting the convergent validity of these measures.

According to the Holland model, however, the correlations for the **O\*NET Interest Profiler** suggest a problematic Enterprising scale, because this scale correlates too highly with the Artistic scale and not highly enough with the Social scale. There was also a large difference in the mean Enterprising scores for the two measures. Although Interest-Finder items focus on high-level business and law activities, **O\*NET Interest Profiler** items include many low-level sales jobs in an attempt to cover all prestige and education levels. Preliminary analyses indicate that these low training level items are not consistently perceived as Enterprising activities by assessment takers. The **O\*NET Interest Profiler** introduces more variability into the Enterprising interest area and, perhaps, in the process, loses conceptual unity. Nevertheless, it is important to keep in mind that these results are based on comparisons with the Interest-Finder. Comparisons to another RIASEC instrument may lead to different conclusions.

Also, according to the Holland model, both of the instruments exhibited a gap between the Realistic and Conventional interest areas (i.e., correlation between the two scales was too small). The presence of this gap also has been found in data from other Holland-type measures. Whether the Realistic-Conventional gap reflects the nature of vocational interest structures or a choice of items within the scales is still unknown.

**Note:** For more detailed information on the reliability and validity of the IP, please see *O\*NET Interest Profiler: Reliability, Validity, and Self-Scoring* (Rounds, Walker, Day, Hubert, Lewis, & Rivkin, 1999).

## **IP FOUNDATION FOR CIP PHASES 1 THROUGH 8**

The procedures followed to develop the **O\*NET Interest Profiler** produced an easy-to-use, technically sound instrument. The IP is a reliable, valid, self-assessment tool that many types of clients within the employment and training community will find helpful. Due to the successful development of the tool, it was able to serve as a solid foundation for a computerized version, the CIP. The following sections describe the two additional research phases conducted to develop the CIP.

### **PHASE 9: SOFTWARE DESIGN**

During this phase, software was developed to deliver an interactive computerized version of the IP. This included establishing design goals, determining the presentation of the instrument's text, designing the instrument's navigation procedures, and finalizing the layout of the instrument.

#### **Design Goals**

Through feedback from various DOL program representatives, as well as discussion with software developers, a set of design goals was established and applied to the software design. The goals included:

- 1) The software should be simple and easy to follow. The targeted user group of the CIP includes individuals who have little or no computer experience. The design of the software must enable the novice computer user to self-administer the instrument. Steps were taken to ensure that the screens and instrument navigation were simple enough to allow the novice user to successfully follow instructions and understand the information presented.
- 2) The screens should be attractive and motivate the user to complete the instrument. The design of the software must keep the attention of users and encourage them to complete the tool. Thus, screens were designed to help keep the user engaged. Options and choices were provided to users to give the instrument a more customized feel, allowing users to have control over the flow of their experience. Several different design sets were included within the software to add variety to the screens, reducing the likelihood of users becoming

bored with the instrument. Finally, where feasible, graphics (e.g., puzzle pieces, note pad, folders) were incorporated within the screens to make the tool more interesting.

- 3) The content, look, and feel of the CIP should be as similar as possible to the paper-and-pencil IP and score report. As mentioned previously, the CIP was developed to be interchangeable with the IP. The IP and its associated score report were developed first. Thus, the CIP designers followed the structure of the IP and its score report. In addition, where feasible, the material and format of the IP was imbedded within the CIP.
- 4) End-user feedback should be gathered throughout the development of the software and incorporated within the design of the software. In order to develop an effective tool, the input and perspective of the wide variety of potential users is critical. Throughout the development of the software, several small pilot tests were conducted to gather feedback on developmental versions of the CIP. Design changes were made to the CIP to address user feedback.
- 5) The software should work well on a variety of computer configurations, including varying screen resolutions, power, operating systems, and pointing devices (i.e., mouse or keyboard). The target programs and user groups of the CIP are quite varied. While minimum operating requirements were established, the software was designed and tested to ensure that it functioned consistently within a wide selection of configurations (e.g., similar presentation of text and graphics).

### **Presentation of Text**

In accordance with the goals outlined above, each screen included within the CIP was designed to be simple and easy to use. Given the wide range of potential users, text presenting instructions and results had to be very clear and easy to comprehend. Simple, short sentences were used to communicate information. Text was presented in chunks, allowing users to focus on pertinent pieces of information. Color, bolding, italics, and graphics (e.g., buttons, pictures, numbers) were used to highlight important information. Finally, large and simple font types were selected to ease the burden of reading the CIP's screens.

### **Instrument Navigation**

As prescribed by the design goals, navigation through the instrument should be straight-forward and simple. The instructions for use of the software are critical. Instructions for moving through the CIP using the computer's keyboard and/or mouse were created. The instruction information was listed in easy-to-follow steps. Directions were repeated in multiple places to ensure users had ample opportunity to learn how to use the instrument. In addition, users were provided the option of printing the navigation instructions. Finally, where feasible, reminders of "what to do" were placed

on either the top or bottom of the screens to help users successfully move through the CIP.

Characteristics of the software are also critical. The software design included large buttons which were consistently placed on the screens to help ensure that users would have little difficulty advancing forward or backward through the instrument. Practice opportunities also were built into the software to help users feel more comfortable and competent.

### **Final Instrument Layout**

The CIP consists of segments that were designed to mirror as much of the IP as possible. Screens were developed for each of these segments:

- 1) opening screens introducing the instrument;
- 2) instructions for taking the instrument;
- 3) a screen for entering the user's name;
- 4) practice screens;
- 5) instrument questions;
- 6) CIP results—
  - explanation of scores,
  - Job Zones,
  - Occupations Report,
  - additional resources; and
- 7) screens describing **O\*NET Career Exploration Tools**.

Sample screens for each of these sections are included and described in Chapters 4 and 5 of this Guide. In comparing the CIP to the IP, you will see how these segments appear in both instruments, promoting the parallelism of the two assessment tools.

### **SUMMARY OF SOFTWARE DESIGN**

During this phase, the CIP's development design goals were established, which, through an iterative process, led to the final content, look, and feel of the instrument. Research points to the successful incorporation of the design goals within the final version of the CIP. Based on results from pilot tests conducted, the CIP is a self-assessment tool that easily can be taken and understood by a wide variety of users. Results of the pilot tests indicated that over 94% of users enjoyed taking the CIP, and almost 90% would recommend the CIP to their friends (Rounds, Mazzeo, Smith, Hubert, Lewis, & Rivkin, 1999). The pilot tests also demonstrated that the software works effectively with a wide variety of computer configurations. Finally, as will be

described in the next section of this Guide, research indicated that the CIP produces results comparable to the IP.

## **PHASE 10: EVALUATION OF THE RELIABILITY AND VALIDITY OF THE CIP AND COMPARABILITY with the IP**

After the software for the CIP was developed, a study was conducted to evaluate its reliability and validity, as well as its comparability with the IP. This section provides a brief overview of the study. For a detailed description of the study, refer to the technical report: *O\*NET Computerized Interest Profiler: Reliability, Validity, and Comparability* (Rounds, Mazzeo, Smith, Hubert, Lewis, & Rivkin, 1999).

### **Study Design**

Data from two separate samples were collected for the study: a comparability sample and a test-retest sample. The comparability sample was composed of 463 subjects. This sample was administered both the CIP and IP, with half of the participants taking the CIP first and the other half of the participants taking the IP first. The test-retest sample consisted of 125 participants who were administered the CIP at two different points in time. The time interval between their first and second administration ranged from 28 to 35 days.

### **Participants**

Administrations were conducted in groups of 4 to 16 at a wide variety of sites, including schools, junior colleges, and employment service offices. Data were collected from all four regions (i.e., north, south, east, west) of the United States.

Participants in the comparability sample were diverse in terms of gender (39% male, 61% female), age (ranging from 17 to 50), education (ranging from less than high school to graduate school experience), ethnicity (40% White Non-Hispanic, 39% African American, 16% Hispanic), and employment status (unemployed, student, employed, military).

The test-retest sample also had a diverse composition. It differed, however, from the comparability sample in that it was primarily Caucasian (68%), it was more highly educated (50% had some college experience vs. 33% in the comparability sample), and the majority were employed (83% employed vs. 50% employed in the comparability sample). The differences in the two samples were likely due to the greater presence of participants from junior colleges and trade school classes in the test-retest sample. These types of participants were over-sampled in an effort to increase the likelihood of successfully administering the CIP to individuals at two points in time. Typically, the CIP was administered at the start of a class term or semester, and then again approximately one month later.

## **Reliability**

The internal consistency estimates for both the CIP and IP were very high (ranging from .93 to .96), indicating that each of the scales on both instruments “hangs together” well. The CIP also had a high estimate of test-retest reliability (ranging from .82 to .92), providing evidence that clients’ scores are likely to be similar if the instrument is taken more than once within a short period of time. The internal consistency and test-retest results are comparable to those found for the IP in a previous study (Rounds, Walker, Day, Hubert, Lewis, & Rivkin, 1999). Thus, it appears that the form of the IP administered (paper-and-pencil vs. computerized) has little effect on the reliability and stability of the scores.

## **Validity**

Four types of analyses were conducted to assess the validity of the CIP. The results of these analyses are briefly described below.

### *Criterion-Related Validity*

This type of validity was assessed by comparing the primary interest area identified by participants’ CIP scores with their perceived ideal job. For example, one would hope that if an individual’s primary interest was Social, he or she would have identified an ideal job such as teacher or counselor. A majority of subjects’ primary interest scores corresponded with their ideal jobs. The study also demonstrated similar results for the IP.

### *Convergent Validity*

This type of validity was assessed by comparing the interest information generated by the CIP with interest information gathered by a different type of interest assessment tool. During the study, participants completed the RIASEC Self-Description Questionnaire (SDQ), a short self-report measure that asks participants to rank their interests. The score profiles resulting from the CIP were compared with the profiles generated by the SDQ. Moderately high levels of convergence were found between the profiles generated by the two assessments, indicating that both are measuring the same interest information. Similar results were discovered for the IP.

### *Parallel Forms Validity*

This type of validity examines the potential influence of test format on participants’ interest scores. Individuals should receive the same score profile, regardless of which version of the tool (i.e., computerized or paper-and-pencil) they take. Profiles from the CIP and IP were examined. Results indicated a high degree of profile similarity.

### *Structural Validity*

This type of validity evaluates the underlying structure of the interest information measured by the CIP. To see if the structure of the information was similar to the Holland model, the intercorrelations of the interest scales, as well as multi-dimensional scales (i.e., visual image of the data) were generated for both the

comparability sample and the test-retest sample. The test-retest sample demonstrated stronger evidence of structural validity. This is likely due to the difference in the make-up of the two samples. The evidence for the test-retest sample was similar to that discovered for the IP (Rounds et al., 1999), and is comparable to other interest measures.

### **Comparability of the CIP and IP**

The comparability or ability to interchange the CIP and IP was assessed indirectly, as well as through direct tests. The similarity of the results from the reliability and validity analyses on the CIP and IP provide indirect evidence that the scores generated from each instrument are comparable to one another.

Several analyses serving as directed tests of the comparability of the two versions of the instruments found that they were similar. Profile analyses indicated that an individual's scores on each of the scales were not dependent upon the particular version of the instrument taken. In addition, correlations among RIASEC scales across the two instruments were examined. These correlations were very high (ranging from .93 to .97), again suggesting the comparability of the IP with the CIP. Another analysis compared the primary interest area assigned by each of the instruments. In general, the measures consistently yielded the same primary codes (approximately 80%). Lastly, the underlying structure of the interest data generated by the instruments was compared. The visual images of the data (i.e., multidimensional scales) were virtually identical, providing further evidence of the comparability of the two instruments.

### **Summary of Technical Quality and Comparability**

In general, the reliability and validity analyses strongly support the use of the CIP, along with the IP, as a measure of vocational interests. The CIP results were strongly related to the career aspirations of users. Users' CIP and IP interest profiles were highly similar. The structure of the underlying data of the CIP instrument fit the RIASEC model. In addition, indirect and direct evidence demonstrated that the CIP and IP are comparable. The version of the instrument taken did not seem to influence either the primary score or the profile of scores that an individual received.

## **CONCLUSION**

The investigation of the technical quality, comparability, and usability of the CIP was very positive. The results indicated that a diverse sample of users found the CIP easy and enjoyable to take. Furthermore, the study supported the instrument's reliability and validity. Additionally, it appears that the CIP and IP are comparable, indicating that programs can use either instrument, depending on their particular needs.

The CIP can be used in conjunction with other assessment tools (e.g., **O\*NET Ability Profiler**, **O\*NET Work Importance Profiler**, or other privately developed instruments) in an attempt to provide whole-person assessment services to clients involved in career exploration. Clients can link their CIP results to occupations included in the O\*NET

database. **O\*NET OnLine** will help clients explore these occupations as possible career choices. For more information about **O\*NET OnLine**, one may access the O\*NET Consortium Web site at <http://www.onetcenter.org> .

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## **Appendix**

### **O\*NET Computerized Interest Profiler Network Installation and Uninstallation**

## **O\*NET Computerized Interest Profiler (CIP) Network Installation and Uninstallation**

Two important steps are required prior to network installation:

- Locate and remove any previous installations of the CIP.
- Determine location where data files will be written.

### **Remove Previous Installations**

Any previous installations of the CIP should be uninstalled from both the network server and the administrative workstation before the current installation. Other workstation installations on the network *do not have to be uninstalled* if the following are true:

- a. the same network directory or folder will be used, and
- b. the location of the data collection files will not be changed.

**Note:** While the install process will never overwrite existing results data files, they will be removed by running Uninstall. Before beginning the installation process, copy these existing results data files. Instructions for uninstalling the CIP are provided at the end of this appendix.

### **Determine Location Where Results Data Files Will Be Written**

When deciding where results data files should be stored, it is important to select a method that will safeguard the privacy and confidentiality of client data. Results only should be available to those who have a legitimate need to know (for example, the network administrator, the assessment administrator and the client taking the assessment). Assessment results are confidential and should not be disclosed to another individual or outside organization without the informed consent of the assessment taker.

As users work with the CIP, records of their results are created. These results data files are written to a file named IPDATA.TXT. The network administrator must decide where this file is to be written. This decision applies to all workstations.

When prompted by the installation program, type in the path and directory. The workstation setup program will install a zero-length results data collection file within the specified directory. The installation process will create a new results file named IPDATA.TXT. The installation process will not overwrite results data files. However, if the

program has already been installed on the network, it will be overwritten with the new installation.

Upon completion of the installation process, readme file icons provide quick access to the IPREADME.TXT file that describes the structure of the results data file, IPDATA.TXT.

Below are two possible scenarios for collection of data:

**A. Use a shared network directory**

In this scenario, data will be collected from all workstations into a single file in a single location on the network. This directory must be writeable by all workstations and all users, and all workstations must access this directory using the same drive mapping. For example, if the F: drive is mapped to the root of a server volume, selecting F:\ONET Assessment Tools would result in all stations and all users writing to the results data file F:\ONET Assessment Tools\IPDATA.TXT.

**B. Use a private network directory**

In this scenario, the directory path points to a private location for each network administrator assigned identification number (ID). For example, in many networks each user is assigned a private directory mapped to the H: drive. In this case, selecting H:\ONET Assessment Tools would result in each user writing to a separate file on the network, in whatever volume H: is mapped to. Note that each user accesses and writes to a private results data file regardless of which workstation is being run by that user.

**Installing the O\*NET Computerized Interest Profiler on a Network**

Installing the CIP takes 3 to 4 minutes. It is good practice to close all other applications before beginning the process. This frees up memory for the installation process and avoids problems of losing data should the computer need rebooting. It is recommended that your system or network administrator perform the network installation.

The CIP supports file-server LANS as well as peer-to-peer networking among users of Windows 95/98/NT/2000/ME. The same basic program, SETUP.EXE, is used to set up either standalone or network installations. Network installation is a multistage process.

To install the CIP on a file-server LAN, you need supervisory rights. You should have read, write, create, modify, add, erase, and file scan access to any directory on the network server, and you should be able to create new directories. If your access privileges are restricted, contact your network supervisor.

From the designated administrative workstation, run SETUP.EXE. This installs the CIP files on the server. The network administrative setup is run from a client machine, not from the server.

On a file-server LAN, such as Novell or Windows NT, the installer should log in from a client workstation using an ID with supervisory rights. Any workstation on the network can be used. You will use this workstation to control which version of the CIP is available to all users. All the CIP files are installed in the network directory.

On Windows 95 or newer peer-to-peer networks or Windows NT networks, the installer must map a drive to the server. The installation will not function if the CIP is installed from the server itself, nor will it function if installed using share names rather than drive mappings. Consult your system-operating manual for directions on properly mapping a drive to a server.

Locate the previously downloaded O\*NET Computerized Interest Profiler installation file, SETUP.EXE, and follow the installation instructions provided in this guide. The instructions assume you are installing the CIP from a folder on a network drive F: that is writeable by all workstations. If you are using a different drive, simply substitute the appropriate drive designation.

## CIP Installation

Operation	Windows 95/98/NT/2000/ME
Choose	<b>Run</b> from the Start Menu
Type	<b>F:\&lt;path&gt;\setup.exe</b> in the dialog box (e.g. F:\my download files\setup.exe)
Click/Press	<b>Enter/OK</b>
Options offered	Interest Profiler - Standard      Work Importance Profiler - Standard Interest Profiler - Demo          Work Importance Profiler - Demo
Choose	Interest Profiler - Standard and/or Interest Profiler - Demo (Also check Work Importance Profiler - Standard and/or Demo for concurrent installation of both instruments.) <b>(Next)</b>
Options offered	Standalone Installation or Network Administrative Installation
Choose	<b>Network Administrative Installation (Next)</b>
Options offered	Install Executable Files on Server or Install Client Files and Icons
Choose	<b>Install Executable Files on Server (Next)</b>
Option offered	Choose destination location
Choose	Default directory/folder ( <b>F:\ONET Assessment Tools*</b> ) or select Browse and type in directory/folder where you want the CIP program installed <b>(Next)</b>
Option offered	Select data directory
Choose	Default directory/folder ( <b>F:\ONET Assessment Tools*</b> ) or select Browse and type in directory/folder where you want the data collection files written. Refer to examples on page 59. <b>(Next)</b> .
Option	Select program manager group
Choose	Default directory/folder ( <b>ONET Assessment Tools</b> ) or select the name of the Program Manager group where you want the O*NET Assessment Tools icons added. <b>(Next)</b>
Option	Create desktop icons?
Choose	Select Default ( <b>Create icons on desktop</b> ) or clear the check box if you do not want icons created. <b>(Next)</b>
Option	Start installation <b>(Next)</b>
Click	Installation Complete <b>(Finish)</b>

**Notes:** \*The program will use the first network drive directory it comes to as the default directory/folder. The program will also use the default printer installed for your Windows applications.

## Run SETUP.EXE for Individual Workstations

From each of the remaining workstations on the network, locate and run SETUP.EXE. Each station is set up individually. This process only takes a few minutes per workstation.

<b>Operation</b>	<b>Windows 95/98/NT/2000/ME</b>
Choose	<b>Run</b> from the Start Menu
Type	<b>F:\&lt;path&gt;\setup.exe</b> in the dialog box (e.g. F:\my download files\setup.exe)
Click/Press	<b>Enter/OK</b>
Options offered	Interest Profiler - Standard    Work Importance Profiler - Standard Interest Profiler - Demo        Work Importance Profiler - Demo
Choose	Interest Profiler - Standard and/or Interest Profiler - Demo (Also check Work Importance Profiler - Standard and/or Demo for concurrent installation of both instruments) <b>(Next)</b>
Options offered	Standalone Installation or Network Administrative Installation
Choose	<b>Network Administrative Installation (Next)</b>
Options offered	Install Executable Files on Server or Install Client Files and Icons
Choose	<b>Install Client Files and Icons (Next)</b>
Option offered	Choose destination location
Choose	Default directory/folder ( <b>F:\ONET Assessment Tools*</b> ) or select Browse and type in directory/folder where you want the CIP program installed <b>(Next)</b>
Option	Select program manager group
Choose	Default directory/folder ( <b>ONET Assessment Tools</b> ) or select the name of the Program Manager group where you want the O*NET Assessment Tools icons added. <b>(Next)</b>
Option	Create desktop icons?
Choose	Select Default ( <b>Create icons on desktop</b> ) or clear the check box if you do not want icons created. <b>(Next)</b>
Option	Start installation <b>(Next)</b>
Click	Installation Complete <b>(Finish)</b>

**Notes:** \*The program will use the first network drive directory it comes to as the default directory/folder. The program will also use the default printer installed for your Windows applications.

## **Files Installed by SETUP.EXE for a Network Installation**

Setup will install the following files into the network directory you have specified:

<b>File Name</b>	<b>Purpose</b>
IPDEMO.EXE IP.EXE	Runs the demonstration version Runs the standard version
IPOUSHR.TXT IPOUMAS.TXT IPJZ.CSV	Data files used by the IP and the IPDEMO
UNWISE.EXE	The uninstaller
INSTALL.LOG	Installation log
DATALOCATION.TXT	Provides the location of the user data file, IPDATA.TXT
IPDATA.TXT	The CIP client/user data collection file, which is installed in a user-designated location
IPREADME.TXT	A text file that describes the structure of the user data file, IPDATA.TXT
RIGHTX32.OCX CLBCATQ.DLL THREED32.OCX	Updates to system files already installed
DAO2535.TLB	Visual Basic database library

In addition, a number of shared dynamic-link libraries will be installed into the subdirectory DLLS located under the main installation directory. These may be used by the workstation setup process.

### **Troubleshooting**

In the event of installation failure, please copy the file INSTALL.LOG (found in the server installation directory) and deliver it via e-mail to Customer Service Support at: [onet@ncmail.net](mailto:onet@ncmail.net).

### **Test the Installation**

It is a good practice to test any network installation before allowing user access. You should run the CIP from several workstations.

## **Running the CIP**

From any network workstation, navigate to the Computerized Interest Profiler icon or Program Group on your desktop. If both versions of the CIP are loaded, two icons will appear. Double-click the CIP icon to run the CIP. The same process is used to run the Demonstration Version. This version will have an icon labeled "DEMO."

## **Uninstalling the Computerized Interest Profiler from a Network**

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**★★★ Important note:** The Uninstaller will remove data files and data directories, as well as the program files. If you want to retain your data, COPY THE IPDATA.TXT FILES TO ANOTHER LOCATION BEFORE STARTING THE UNINSTALL PROGRAM.

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The Uninstaller must be run from the network installation, as well as from each station where the workstation setup was performed. If you plan to install a new version of the CIP and will be keeping the data files (IPDATA.TXT) and the network directory in the current locations, the CIP does not have to be uninstalled from the non-administrative workstations.

To uninstall the CIP, use the automatic Uninstall option from the Start Menu, Settings, Control Panel, Add/Remove Programs. Scroll down the program listing and Select **O\*NET Assessment Tools**. Click on Add/Remove.

When the Uninstaller is started, it will offer a choice of Automatic or Custom methods. The Automatic method is recommended. The custom method will allow you to choose exactly which files are removed. The Automatic method removes **all** O\*NET Assessment Tools and desktop icons.

## Tables

Table 1

**O\*NET Interest Profiler and Interest-Finder Scale Means, Standard Deviations, Coefficient Alphas, and Scale Intercorrelations**

RIASEC Scale <sup>1</sup>	M <sup>2</sup>	SD	$\alpha$	IP-R	IP-I	IP-A	IP-S	IP-E	IP-C	IF-R	IF-I	IF-A	IF-S	IF-E	IF-C
IP-R	10.32 (6)	8.7	.95	---	.56	.38	.40	.59	.39	<u>.83<sup>3</sup></u>	.49	.39	.41	.44	.40
IP-I	13.19 (5)	8.9	.95	---	---	.56	.57	.52	.43	.50	<u>.80</u>	.56	.59	.56	.40
IP-A	13.46 (3)	9.2	.96	---	---	---	.52	.58	.35	.34	.44	<u>.84</u>	.57	.53	.32
IP-S	16.28 (1)	9.5	.96	---	---	---	---	.62	.49	.30	.39	.49	<u>.79</u>	.49	.44
IP-E	13.28 (4)	8.7	.95	---	---	---	---	---	.66	.47	.39	.53	.62	<u>.71</u>	.61
IP-C	14.80 (2)	10.1	.97	---	---	---	---	---	---	.30	.35	.37	.52	.54	<u>.86</u>
IF-R	17.1 (6)	11.3	.95	---	---	---	---	---	---	---	.56	.42	.40	.46	.37
IF-I	19.4 (4)	12.2	.96	---	---	---	---	---	---	---	---	.53	.53	.54	.40
IF-A	18.6 (5)	11.3	.95	---	---	---	---	---	---	---	---	---	.64	.59	.41
IF-S	21.8 (2)	11.4	.95	---	---	---	---	---	---	---	---	---	---	.67	.57
IF-E	22.3 (1)	11.5	.95	---	---	---	---	---	---	---	---	---	---	---	.62
IF-C	21.2 (3)	13.3	.97	---	---	---	---	---	---	---	---	---	---	---	---

Note. IP=Interest Profiler. IF=Interest-Finder. IP-R=IP Realistic scale, IP-I=Investigative scale, IP-A=Artistic scale, IP-S=Social scale, IP-E=Enterprising scale, IP-C=Conventional scale, IF-R=Realistic scale, IF-I=Investigative scale, IF-A=Artistic scale, IF-S=Social scale, IF-E=Enterprising scale, IF-C=Conventional scale. All means, standard deviations, coefficient alphas, and scale intercorrelations are based on a sample size of 1,123. IP scale scores range from 0-30. IF scale scores range from 0-40.

<sup>1</sup> All correlation coefficients are statistically significant beyond the .001 level.

<sup>2</sup> Numbers in parentheses following the scale means are the within-measure rank order position of the mean.

<sup>3</sup> Correlations between corresponding IP and IF scales are underscored for interpretation purposes.

**Table 2**

**Subgroup Score Overlap for the O\*NET Interest Profiler and Interest-Finder Scales**

Scale	O*NET Interest Profiler						Interest-Finder				
	Males			Females			Males		Females		O <sup>a</sup>
	Mean	SD		Mean	SD		Mean	SD	Mean	SD	
Realistic	13.78	8.82	7.24	7.33	68*	21.83	10.50	12.91	10.50	66*	
Investigative	14.29	8.91	12.20	8.73	90	22.07	12.25	17.10	11.61	83	
Artistic	13.34	8.93	13.56	9.39	99	18.32	11.37	18.78	11.30	98	
Social	14.79	9.61	17.61	9.16	89	20.78	11.91	22.63	10.94	93	
Enterprising	13.62	8.79	12.99	8.65	98	23.70	11.22	20.98	11.58	90	
Conventional	13.02	9.93	16.38	10.03	86	19.76	13.31	22.52	13.15	91	

Note. O\*NET Interest Profiler scale scores range from 0 to 30; Interest-Finder scales range from 0 to 40. All means and standard deviations are based on a sample size of 1123.

<sup>a</sup> Percent overlap is based on Dunnette's (1966) table for Tilton's (1937) measure of overlap.

\* Overlap less than or equal to 75%, indicating dissimilar distributions.

\*\* Overlap less than 81%, but greater than 75%, indicating somewhat dissimilar distributions.

**Table 2 (cont.)**

**Subgroup Score Overlap for the O\*NET Interest Profiler and Interest-Finder Scales**

Scale	O*NET Interest Profiler						Interest-Finder					
	White			African American			White			African American		
	Non-Hispanic			Non-Hispanic			Non-Hispanic			Non-Hispanic		
	Mean	SD		Mean	SD		Mean	SD		Mean	SD	O <sup>a</sup>
Realistic	8.65	7.93		11.77	8.99		15.13	10.56		18.57	11.38	87
Investigative	12.28	8.72		12.76	8.74		17.73	11.91		19.50	12.30	94
Artistic	11.60	9.09		15.10	9.04		16.03	11.21		20.36	11.19	84
Social	12.95	9.55		18.31	8.63		18.06	10.86		23.69	11.38	80**
Enterprising	9.98	7.71		16.46	8.78		18.81	10.95		24.84	11.26	78**
Conventional	12.16	10.11		17.30	9.61		17.51	13.16		25.20	12.33	76**

Note. O\*NET Interest Profiler scale scores range from 0 to 30; Interest-Finder scales range from 0 to 40. All means and standard deviations are based on a sample size of 1123.

<sup>a</sup> Percent overlap is based on Dunnette's (1966) table for Tilton's (1937) measure of overlap.

\* Overlap less than or equal to 75%, indicating dissimilar distributions.

\*\* Overlap less than 81%, but greater than 75%, indicating somewhat dissimilar distributions.

**Table 2 (cont.)**

**Subgroup Score Overlap for the O\*NET Interest Profiler and Interest-Finder Scales**

Scale	O*NET Interest Profiler						Interest-Finder					
	White Non-Hispanic			Hispanic			White Non-Hispanic			Hispanic		
	Mean	SD		Mean	SD		Mean	SD		Mean	SD	
			O <sup>a</sup>			O <sup>a</sup>			O <sup>a</sup>			O <sup>a</sup>
Realistic	8.65	7.93	91	10.47	9.01	91	15.13	10.56	92	17.15	11.87	92
Investigative	12.28	8.72	88	14.83	9.12	88	17.73	11.91	88	21.08	12.10	88
Artistic	11.60	9.09	92	13.41	9.08	92	16.03	11.21	92	18.83	11.17	90
Social	12.95	9.55	78**	17.98	9.22	78**	18.06	10.86	80**	23.58	11.04	80**
Enterprising	9.98	7.71	84	13.11	8.28	84	18.81	10.95	84	22.72	11.44	86
Conventional	12.16	10.11	90	14.54	10.05	90	17.51	13.16	90	19.96	13.40	92

Note. O\*NET Interest Profiler scale scores range from 0 to 30; Interest-Finder scales range from 0 to 40. All means and standard deviations are based on a sample size of 1123.

<sup>a</sup> Percent overlap is based on Dunnette's (1966) table for Tilton's (1937) measure of overlap.

\* Overlap less than or equal to 75%, indicating dissimilar distributions.

\*\* Overlap less than 81%, but greater than 75%, indicating somewhat dissimilar distributions.

## Figures

**Figure 1. Overview of the O\*NET Interest Profiler Taxonomy, Version 3.0**

Realistic Scale		Investigative Scale		Artistic Scale		
03.01#	Plants & Animals	Level 3	02.01	Physical Sciences	01.01	Literary Arts
03.02#	"	Level 2	02.02	Life Sciences	01.02	Visual Arts
03.04#	"	Level 1				
03.03	Animal Training & Service		02.03	Medical Sciences	01.03	Performing Arts: Drama
04.02	Security Services		02.04	Laboratory Technology	01.04	Performing Arts: Music
05.04#	Airplane & Ship Operation		02.05+	Computer Technology	01.05	Performing Arts: Dance
05.05*	Craft Technology		05.01	Engineering	01.06	Craft Arts
05.06	Systems Operations		05.02#	Mechanical Systems Management	01.08	Modeling
05.07	Quality Control: Mechanical		05.03*	Engineering Technology	12.02	Physical Feats
05.08	Land & Water Vehicle Operation		11.01*	Mathematics & Statistics		
05.10*	Crafts		11.03	Social Research		
05.11	Equipment Operation		11.06A+	Finance: Design & Interpretation		
05.12#	Basic Mechanical		11.08	Communications		
06.01	Production Technology		11.10	Regulations Enforcement		
06.02#	Production Work	Level 2	12.00+	General Research		
06.04#	"	Level 1	4.01R	Safety & Law		
06.03	Quality Control: Industrial					
09.03	Passenger Services					
09.04#	*Basic Services					

\* GOE Work Group Definition Modified  
 # GOE Group Title Modified  
 + New Work Content Area  
 R Moved Post Retranslation Screen

**Figure 1. (cont.) Overview of the O\*NET Interest Profiler Taxonomy, Version 3.0**

Social Scale		Enterprising Scale		Conventional Scale	
04.01	Safety & Law Enforcement	08.01	Sales Technology	05.09*	Material Control
09.01	Hospitality Services	08.02	General Sales	07.01	Administrative Detail
09.02	Barber & Beauty Services	08.03	Vending	07.02	Mathematical Detail
10.01	Social Services	09.05#*	Attendant/Customer Services	07.03	Financial Detail
10.02	Nursing, Therapy, & Specialized Teaching Services	11.04	Law	07.04	Oral Communications
10.03*	Child & Adult Care	11.05	Business Administration	07.05	Records Processing
11.02	Educational & Library Services	11.06B+	Finance: Buy & Sell	07.06	Clerical Machine Operation
12.01	Sports	11.07	Service Administration	07.07	Clerical Handling
		11.09	Promotion	2.05R	Computer Technology
		11.11	Business Management		
		11.12	Contracts & Claims		
		9.02R	Barber & Beauty Services		

\* GOE Work Group Definition Modified  
 # GOE Group Title Modified  
 + New Work Content Area  
 R Moved Post Retranslation Screen

**Figure 2. Overview of the Modified Specific Vocational Preparation Scale (MSVP)**

Level	Time <sup>4</sup>
1	Up to and including 6 months. <sup>5</sup>
2	Over 6 months up to and including 1 year.
3	Over 1 year up to and including 2 years.
4	Over 2 years up to 4 years.
5	At least 4 years. <sup>6</sup>

**NOTE:** The levels of this scale are mutually exclusive and do not overlap.

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<sup>4</sup> Time that applies to General Educational Development is not considered in estimating Specific Vocational Preparation.

<sup>5</sup> Represents three collapsed levels of the original SVP scale.

<sup>6</sup> Represents two collapsed levels of the original SVP scale.

**Figure 3. Familiarity Screen Rating Scale**

<b>Not Familiar</b>	<b>Somewhat Familiar</b>	<b>Very Familiar</b>
<b>1</b>	<b>2</b>	<b>3</b>
<b>4</b>	<b>5</b>	
You don't know what the activity is. You have never heard of the activity.	You know something about the activity, or someone you know performs the activity on his or her job.	You have seen the activity performed a number of times, or you have performed the activity yourself.