



USER MANUAL

NIOSH Industry and Occupation Computerized Coding System (NIOCCS)

**Centers for Disease Control and
Prevention**

**National Institute for Occupational
Safety and Health (NIOSH)**

September, 2014



Revision Sheet

Who	Date	Revision #	Revision Description
BJ Haussler	2/1/2012	1.0	Initial document development
S. Nowlin	12/21/2012	1.2	Reorganized, edited existing content, completed remaining content.
S. Nowlin	9/30/2014	2.0	Updated to include all changes since version 1.0

Using this Manual

The following nomenclature is used throughout this manual:

Highlighted Text Boxes

Password: 

Highlighting in text boxes indicates places where users can enter information.

Thin Arrows



Thin arrows direct users to click a button or link.

Bold Text – Identify screen names and/or items on screens.

Circles



Circles are used to draw attention to particular items on a screen.

Large Arrows



Large arrows point to the results of a user action.

NIOCCS USER'S MANUAL

TABLE OF CONTENTS

	<u>Page #</u>
1 System Overview	1-5
1.1 Introduction	1-5
1.2 NIOSH Training Recommendations	1-6
1.3 Contact Information	1-6
1.4 System Configuration and Data Flows	1-7
1.5 User Access	1-7
1.6 Continuity of Operations	1-7
2 Accessing NIOCCS	2-8
2.1 Requesting a NIOCCS Account	2-10
2.2 Logging On	2-14
2.2.1 Logging On the First Time	2-15
2.2.2 Forgot Password	2-17
2.3 Logging Off	2-19
3 NIOCCS HOME Page (Logged on)	3-20
4 My Profile	4-22
4.1 Updating Profile Information	4-24
4.2 Default System Preferences	4-25
4.3 Change Password	4-26
5 Autocoding Confidence Levels	5-28
6 Industry and Occupation Coding	6-31
6.1 CDC / Census Alphabetical Index Lookup	6-31
6.1.1 Overview	6-31
6.1.2 Searching the CDC / Census Alphabetical Index	6-32
6.1.3 The Industry Alphabetical Index	6-38
6.1.4 The Occupation Alphabetical Index	6-40
6.2 I&O Single Record Coding	6-42
6.3 Uploading a File for I&O Coding	6-45
6.3.1 NIOCCS Input File Format Options for I&O Coding	6-45
6.3.2 Upload File for I&O Coding screen.....	6-48
6.3.3 Upload File Status screen	6-51
6.4 Submitting a File for I&O Autocoding	6-52
6.5 Autocode File Status screen	6-54

6.6	Computer-assisted I&O Coding.....	6-57
6.6.1	Selecting Records to Review/Edit	6-57
6.6.2	Computer-assisted I&O Coding screen.....	6-59
6.6.3	How to Assign Industry and Occupation Codes	6-77
6.7	Downloading I&O Coded Files	6-83
7	<i>Crosswalk Coding.....</i>	7-86
7.1	Crosswalk Single Record Coding.....	7-87
7.2	Uploading a File for Crosswalk Coding.....	7-92
7.2.1	NIOCCS Input File Format for Crosswalk Coding.....	7-92
7.2.2	Upload File for Crosswalk Coding screen	7-93
7.2.3	Upload File Status Screen.....	7-96
7.3	Submitting a File for Crosswalk Coding	7-97
7.4	Computer-assisted Crosswalk Coding.....	7-100
7.4.1	Selecting Records to Review/Edit	7-100
7.4.2	Computer-assisted Crosswalk Coding screen	7-102
7.4.3	How to Assign Crosswalk Codes.....	7-111
7.5	Downloading Crosswalk Coded Files	7-117
8	<i>Quality Control.....</i>	8-120
9	<i>File Management</i>	9-123
9.1	File Retention and Removal.....	9-124
9.2	File History.....	9-127
10	<i>Help and User Support.....</i>	10-129
10.1	NIOCCS User Manual and Documentation.....	10-129
10.2	Frequently Asked Questions.....	10-130
10.3	Contacting NIOSH	10-131
10.4	NIOSH Industry and Occupation Coding website	10-132
10.5	About NIOCCS.....	10-133
<i>Appendix A: Glossary</i>		10-134
<i>Appendix B: Industry and Occupation Classification Systems Overview.....</i>		10-137
<i>Appendix C: Authorized Use and Rules of Behavior</i>		10-140
<i>APPENDIX D: NIOCCS Coding Processes, Performance, and Limitations</i>		10-143

Disclaimer

THE MATERIAL EMBODIED IN THIS SOFTWARE IS PROVIDED TO YOU "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL THE CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC) OR THE UNITED STATES (U.S.) GOVERNMENT BE LIABLE TO YOU OR ANYONE ELSE FOR ANY DIRECT, SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR ANY DAMAGES WHATSOEVER, INCLUDING WITHOUT LIMITATION, LOSS OF PROFIT, LOSS OF USE, SAVINGS OR REVENUE, OR THE CLAIMS OF THIRD PARTIES, WHETHER OR NOT CDC OR THE U.S. GOVERNMENT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSS, HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, ARISING OUT OF OR IN CONNECTION WITH THE POSSESSION, USE OR PERFORMANCE OF THIS SOFTWARE.

1 SYSTEM OVERVIEW

1.1 Introduction

The NIOSH Industry and Occupation Computerized Coding System (NIOCCS) is a web-based software tool designed to translate industry and occupation (I&O) text found on employment, vital statistics, and health records to standardized I&O codes. The system was developed by NIOSH and released for public use in December 2012.

This system is used by occupational researchers, federal government agencies, state health departments, and other organizations that collect and/or evaluate information using I&O. Its purpose is to provide a tool that reduces the high cost of manually coding I&O information while simultaneously improving uniformity of the codes.

NIOCCS is available free of charge and requires only internet access and a web browser for use. Users are required to register for a NIOCCS account if they wish to upload files of records for coding.

NIOCCS Primary System Features:

- **Industry and Occupation Coding**
 - Single Record or Batch File Processing
 - Automatic and Computer-Assisted Coding
 - Selection of I&O Classification Scheme (Census 2000, 2002, 2010)
 - NIOCCS codes text to the Census Industry and Occupation classification schemes with option to include associated NAICS and SOC code in output file
 - Crosswalk Coding (Census 1990, 2000, 2002, 2010)
 - Associated NAICS and/or SOC codes can be included in the crosswalked output file
 - Ability to crosswalk forward or backward
- **Review of Active and Historical Files Submitted**
- **User Support**
 - NIOCCS User Manual and supporting documentation
 - Frequently Asked Questions
 - Industry and Occupation Coding website
 - NIOCCS Contact Us feature for submitting Questions or Provide Feedback

1.2 NIOSH Training Recommendations

The intent of this manual is NOT to teach how to code industry and occupation but how to use the NIOCCS system.

NIOSH strongly recommends that users be trained in I&O coding prior to using the NIOCCS system. NIOCCS is not intended to take the place of trained I&O coders. Using the computer-assisted features of this system will still require trained I&O coders with the knowledge needed to use the system for selecting the appropriate I&O codes.

NIOSH provides I&O coding training classes several times a year. Requests for training can be made on the NIOSH I&O Coding website at:

<http://www.cdc.gov/niosh/topics/coding/training.html>

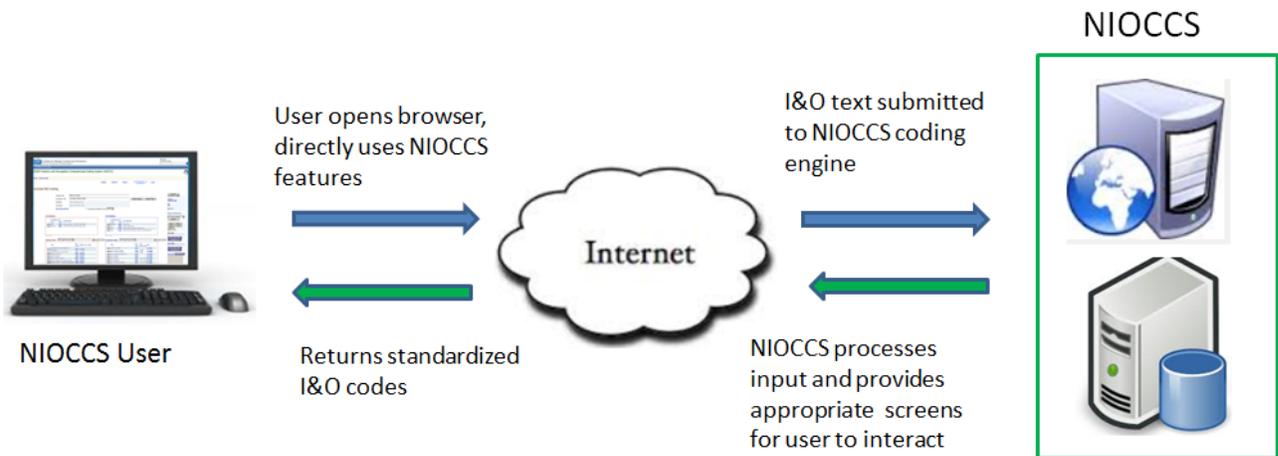
If attending a training class is not possible, it is recommended that a copy of the instruction manuals for Census coding schemes be reviewed (also found on the above website). The instruction manuals were developed for the I&O training class and can be used as a guide for determining industry and occupation codes when using the NIOCCS computer-assisted feature.

1.3 Contact Information

For more information about NIOCCS, users can contact the NIOCCS Support Team in one of three ways:

- 1) Submit a question or suggestion using the following NIOCCS form:
<http://wwwn.cdc.gov/niosh-nioccs/ContactNotLoggedIn.aspx>
- 2) Send an email to NIOCCS@CDC.gov
- 3) Contact one of the following NIOSH staff:
 - a. Pam Schumacher, pschumacher@cdc.gov 513-458-7133
 - b. John Lu, jlucdc@gmail.com 513-841-4565
 - c. Susan Nowlin, snowlin@cdc.gov 513-841-4467

1.4 System Configuration and Data Flows



1.5 User Access

Each user with a NIOCCS user account has read/write access to only their own data. No user can see another user's data nor can access be granted to a file from one user to another. There are no variations in user access levels.

Users may only have one active NIOCCS session open per user account at a time. If a user attempts to logon to their account prior to logging off from a previous session, they will be given the option to end their previous session prior to logging on again. The enforcement of single active user session was put in place to ensure the integrity of the user's data. This ensures that users could not accidentally edit the same file in multiple computer sessions.

1.6 Continuity of Operations

NIOCCS users will be informed via email in the event the system is unexpectedly down. Known downtimes for maintenance will be posted in advance on the **News / Updates** box on the NIOCCS home page and email messages will also be sent to users.

2 ACCESSING NIOCCS

NIOCCS software can be accessed directly using the following URL:

<http://wwwn.cdc.gov/niosh-nioccs/>

or

it can be accessed via the **NIOSH Industry and Occupation Coding website** at

<http://www.cdc.gov/niosh/topics/coding/>

The I&O Coding website provides general information about industry and occupation coding, information about NIOSH I&O coding training, I&O consultation services, guidelines and publications, links to related sites, and NIOSH contact information. From the **Industry and Occupation Coding website**, click the **Software** option from either the left side menu or box as shown below to access NIOCCS.

The screenshot displays the NIOSH Industry and Occupation Coding website. At the top, the CDC logo and 'Centers for Disease Control and Prevention' are visible, along with a search bar. The main navigation menu on the left includes 'Industry and Occupation Coding', 'I&O Coding Training', 'I&O Coding Software', 'I&O Coding Documentation', 'Collecting and Using I&O Data', 'Consultation', and 'Related Links'. A red arrow points to 'I&O Coding Software'. The main content area features a 'Workplace Safety & Health Topics' header, a 'NIOSH' logo, and a 'RECOMMEND' button. Below this is the 'INDUSTRY AND OCCUPATION CODING' section, which includes a description of NIOSH's role and a list of services: 'I&O Coding Training', 'I&O Coding Software', 'I&O Coding Documentation', 'Collecting and Using I&O Data', and 'Consultation'. A red arrow points to the 'I&O Coding Software' service box. On the right side, there are links for 'Print page', 'Get email updates', 'Subscribe to RSS', 'Listen to audio/Podcast', and 'View Related Topic in Español (Spanish)'. At the bottom right, contact information for the National Institute for Occupational Safety and Health (NIOSH) is provided, including phone numbers, TTY, and hours of operation.

The **NIOCCS Home Page** is shown below. This screen welcomes the user, provides a brief description of the system, and will display messages to the user such as notices about recent updates and planned down times.

NIOCCS Home Page Options – NOT LOGGED ON

Coding

- Census Alphabetical Index Lookup
- I & O Single Record Coding
- Intelligent Dropdown Coding
- Crosswalk Single Record Coding

Help

Welcome to NIOCCS

The NIOSH Industry & Occupation Computerized Coding System (NIOCCS) is a web-based system that translates industry and occupation (I&O) text into standardized I&O codes.

Primary System Features Include:

- Automatic and Computer-Assisted Coding
- Single Record Coding or Batch File Submissions
- Crosswalk Coding

NIOCCS is available free of charge. Users must register for a NIOCCS account if they wish to submit a batch of records for coding.

To learn more about NIOCCS:

- Visit the NIOCCS Overview web page at: <http://www.cdc.gov/niosh/topics/coding/overview.html>
- Click the NIOCCS Help menu for support options
- Contact us at: NIOCCS@cdc.gov

News / Updates

NOTICE: 7/8/2014 - We are experiencing technical difficulties with **password requests**, please submit request directly to NIOCCS@cdc.gov until further notice.

NOTE: Users may have issues using NIOCCS with browsers other than internet explorer.

Upcoming NIOCCS training class - September 19, Raleigh, North Carolina
Email PSchumacher@cdc.gov for more details.

From the NIOCCS Home Page, users have access to some coding features and all help options without needing to register for an account or logging on.

NIOCCS Home Page Options – NOT LOGGED ON	
<p>Coding</p> <ul style="list-style-type: none"> Census Alphabetical Index Lookup I & O Single Record Coding Intelligent Dropdown Coding Crosswalk Single Record Coding 	<p>Users can look up I&O codes using any of these 4 options under the Coding menu.</p> <p><i>(See Chapters 6.1, 6.2 or 7.1 for instructions for using these options).</i></p> <p>NOTE: The Intelligent Dropdown Coding option is in beta testing and is not discussed in this User Manual at this time.</p>

NIOCCS Home Page Options – NOT LOGGED ON						
<p>Help</p> <table border="1"> <tr><td>NIOCCS User Documentation</td></tr> <tr><td>FAQ</td></tr> <tr><td>Contact Us \ Feedback</td></tr> <tr><td>I & O Coding Web Page</td></tr> <tr><td>About NIOCCS</td></tr> </table>	NIOCCS User Documentation	FAQ	Contact Us \ Feedback	I & O Coding Web Page	About NIOCCS	<p>Several user help options are available for NIOCCS support and general I&O coding support.</p> <p><i>(See Chapter 10 – Help and User Support for more information about these options).</i></p>
NIOCCS User Documentation						
FAQ						
Contact Us \ Feedback						
I & O Coding Web Page						
About NIOCCS						

2.1 Requesting a NIOCCS Account

To submit a file of data records to NIOCCS for coding, a NIOCCS user account is *required*. To request an account, click the **Register** link on the NIOCCS Home Page.

The screenshot shows the NIOCCS Home Page. At the top right is the NIOSH logo with 'NIOSH Home' underneath. Below the logo is a navigation bar with 'NIOSH > NIOCCS HOME'. A 'Share' button is on the left. In the center, there are 'Coding' and 'Help' buttons. Below these is the heading 'Welcome to NIOCCS'. To the right of the heading is the NIOCCS logo. Below the heading, there is a paragraph describing the system. A red arrow points from the 'Coding' button area to the 'Register' link. The 'Register' link is underlined and followed by 'for a NIOCCS Account'. Below the main content, there is a 'News / Updates' section with a notice dated 7/8/2014 and an upcoming training class announcement.

NIOSH Industry and Occupation Computerized Coding System (NIOCCS)

NIOSH Home

NIOSH > NIOCCS HOME

Share

Coding Help

Welcome to NIOCCS

[Logon](#) to NIOCCS
[Register](#) for a NIOCCS Account

The NIOSH Industry & Occupation Computerized Coding System (NIOCCS) is a web-based system that translates industry and occupation (I&O) text into standardized I&O codes.

Primary System Features Include:

- Automatic and Computer-Assisted Coding
- Single Record Coding or Batch File Submissions
- Crosswalk Coding

NIOCCS is available free of charge. Users must register for a NIOCCS account if they wish to submit a batch of records for coding.

To learn more about NIOCCS:

- Visit the NIOCCS Overview web page at: <http://www.cdc.gov/niosh/topics/coding/overview.html>
- Click the NIOCCS Help menu for support options
- Contact us at: NIOCCS@cdc.gov

News / Updates

NOTICE: 7/8/2014 - We are experiencing technical difficulties with **password requests**, please submit request directly to NIOCCS@cdc.gov until further notice.

NOTE: Users may have issues using NIOCCS with browsers other than internet explorer.

Upcoming NIOCCS training class - September 19, Raleigh, North Carolina
Email PSchumacher@cdc.gov for more details.

On the **Request a NIOCCS Account** screen, the user will be prompted to enter required information. After entering this information click the **Submit** button.

The screenshot shows the NIOCCS registration page. At the top, it says "NIOSH Industry and Occupation Computerized Coding System (NIOCCS)" and "NIOSH Home". Below that is a navigation bar with "NIOSH > NIOCCS HOME", a "Share" button, and "Coding" and "Help" tabs. The main heading is "Request a NIOCCS Account". The form includes fields for "Email", "Reenter Email", "Phone", "Organization", and "Purpose". Below these is a reCAPTCHA challenge showing a number "7930" on a piece of paper. There is a "Submit" button and a privacy notice: "NIOCCS will not sell, exchange or otherwise give away your email address to anyone for any reason."

NIOCCS Registration Required Information:

Email address - Enter a valid email address. This will become your NIOCCS account name and will be used for logging on to NIOCCS. All communications from NIOSH regarding your NIOCCS account and/or system updates will be sent to this email address.

User Phone Number – Enter a valid phone number in the format xxx-xxx-xxxx. NIOSH will use this number to contact the user by phone if needed for user support issues.

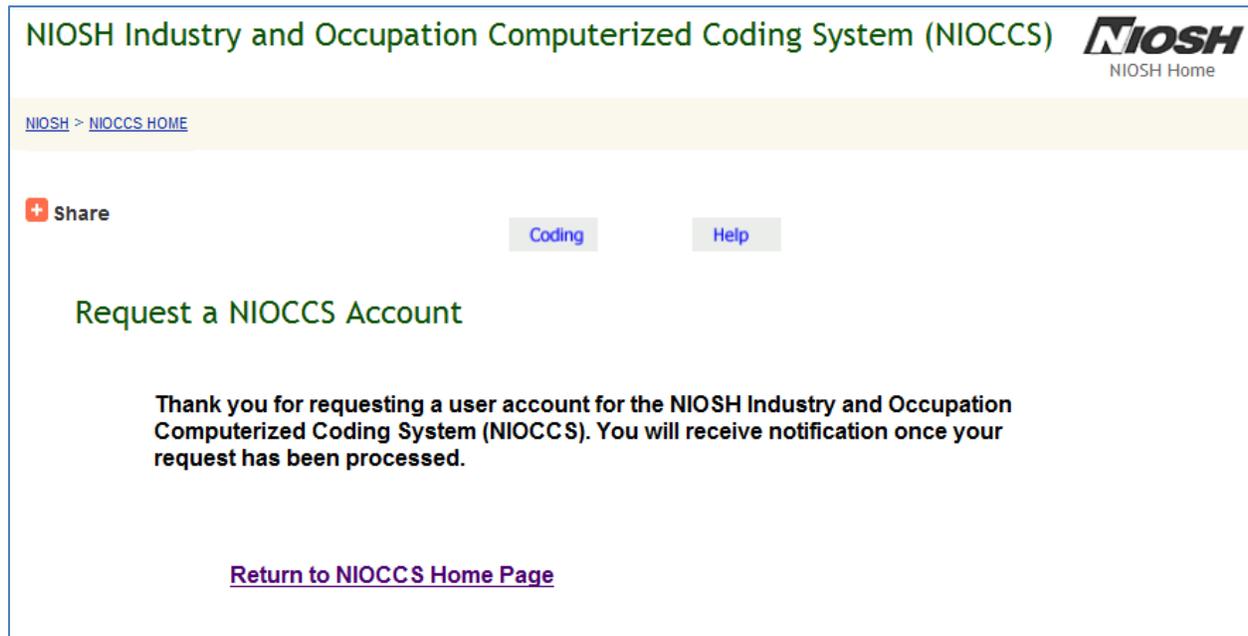
Organization – Enter the name of the organization the user is affiliated with, for example: university name, company name, government agency name, etc. This information is used by NIOSH to better understand and support stakeholders of the NIOCCS product.

Purpose – Describe the purpose(s) for using the NIOCCS system, for example: “To code survey data for epidemiologic studies”, “To crosswalk older I&O codes”, “To verify manually coded I&O data”, etc. NIOSH uses this information to better understand and support stakeholders of the NIOCCS product.

NOTE: NIOSH will not sell, exchange or otherwise give away information regarding this NIOCCS account to anyone for any reason.

A confirmation message will be displayed on the screen, as shown below, after the **Submit** button is clicked.

An email will be sent to NIOSH System Administrators once the request is submitted. NIOSH will review the request and set up the account in the system.



The screenshot shows the NIOSH Industry and Occupation Computerized Coding System (NIOCCS) website. At the top, the title "NIOCCS" is displayed in green, followed by the NIOSH logo and "NIOSH Home". Below the title is a breadcrumb trail: "NIOSH > NIOCCS HOME". There are two buttons: "Coding" and "Help". A "Share" button with a plus icon is on the left. The main heading is "Request a NIOCCS Account". The body text reads: "Thank you for requesting a user account for the NIOSH Industry and Occupation Computerized Coding System (NIOCCS). You will receive notification once your request has been processed." At the bottom, there is a link: "Return to NIOCCS Home Page".

Once NIOSH has set up the account, the user will receive two emails at the address provided on the account request screen.

The first email will let the user know their account has been set up and will contain the user's logon name and instructions regarding the account password.

From: NIOCCS <nioccs@cdc.gov>
Date: November 27, 2012, 9:53:43 AM EST
To: Lecoder.Bob@ABC.edu
Subject: Your New NIOCCS Account

Thank you for requesting a user account for the NIOSH Industry and Occupation Computerized Coding System (NIOCCS). Please use the following Logon Name to logon to the system. Your password will be emailed separately for security reasons.

Logon Name: lecoder.bob@abc.edu

NIOCCS will generate an initial password for you, however you must change it once you have logged in successfully.

The NIOSH Industry and Occupation Coding System can be accessed at: <http://wwwn.cdc.gov/niosh-nioccs>

If you have any questions, please send an email to NIOCCS@cdc.gov or contact Pam Schumacher at 513-458-7133.

A second email will be sent to the user with their *temporary* password. This password will be used for the initial logon but *must* be changed before using any other logged on features of the system.

-----Original Message-----

From: NIOCCS (CDC)

Sent: Tuesday, November 06, 2012 3:11 PM

To: LeCoder,Bob@ABC.edu

Subject: Your New NIOCCS Account

Password: zmv2SXluZ28

The site can be accessed at: <http://wwwn.cdc.gov/niosh-nioccs>

If you have any questions, please send an email to NIOCCS@cdc.gov or contact Pam Schumacher at 513-458-7133.

2.2 Logging On

On the **NIOCCS Home** page, click the **Logon to NIOCCS** link.

The screenshot shows the NIOCCS Home page. At the top right is the NIOSH logo with 'NIOSH Home' underneath. Below the logo is a navigation bar with 'NIOSH > NIOCCS HOME'. On the left, there is a 'Share' button. In the center, there are two buttons: 'Coding' and 'Help'. A red arrow points to the 'Logon to NIOCCS' link, which is underlined and followed by 'Register for a NIOCCS Account'. To the right of the arrow is the NIOCCS logo. Below the main heading, there is a paragraph describing the system and a list of 'Primary System Features Include:'. A 'News / Updates' box on the right contains a notice about technical difficulties on 7/8/2014 and information about an upcoming training class.

Enter logon name (email address) and password then click the **Logon** button.

The screenshot shows the NIOCCS Home page with the login form. The heading is 'Logon to NIOCCS'. Below the heading are two input fields: 'Email Address:' and 'Password:'. Below the password field is a 'Logon' button and a link for 'Forgot Password'. At the bottom, there are two links: 'http://www.cdc.gov/Other/policies.html' and 'http://www.cdc.gov/privacy.html'. A 'WARNING' section follows, stating that the system is a U.S. Government computer system and that unauthorized access is prohibited.

2.2.1 Logging On the First Time

The first time a person logs on to NIOCCS, they will be presented with the NIOCCS **Rules of Behavior**. At the bottom of the Rules of Behavior is a box that must be checked by the user in order to continue. Checking the box acknowledges the user understands and accepts the rules for using NIOCCS.

NIOCCS Industry and Occupation Computerized Coding System (NIOCCS) 

[NIOCCS HOME](#)

[Coding](#) [Help](#)

Rules of Behavior

Please read the NIOCCS rules of behavior then check the box at the bottom of the screen if you accept. You must accept these rules in order to complete the NIOCCS account registration process and log on to the system.

Introduction

The NIOSH Industry and Occupation Computerized Coding System (NIOCCS) is a web-based computer system that translates industry and occupation (I/O) text into standardized I/O codes. It is a tool developed by NIOSH, free of charge to users, which will improve coding uniformity and reduce the high cost of manually coding I/O information from vital records, cancer registries, health care records, and other record systems.

Purpose

These rules of behavior are not to be used in place of existing policy; rather they are intended to enhance and further define the specific rules each user must follow while accessing and using NIOCCS. The rules are consistent with the policy and procedures described in the [Department of Health and Human Services \(DHHS\) Information Security and Privacy Program](#) and specific policy documents. The DHHS Information Security and Privacy program contains computer security guidance on a wide range of topics and describe the Information Technology Security Program that establishes policies, procedures, and responsibilities in the area of computer security within the Department.

Non-compliance

Non-compliance with these rules will be enforced through sanctions appropriate with the level of infraction. Actions may range from a verbal or written warning and/or removal of system access depending on the severity of the violation.

Policy Rules

NIOCCS does not collect personally identifiable information (PII). CDC/NIOSH asks users not to include PII in any data files submitted to NIOCCS for coding.

Users are provided access to NIOCCS for the purpose of facilitating CDC/NIOSH's public health mission. Each user is responsible for helping to prevent unauthorized use of, and access to, system resources. This duty includes complying with all stated policy requirements, taking due care and reasonable precautions when handling system data or using system resources, and in managing and protecting system authentication controls (passwords, etc.). When in doubt, users are strongly encouraged to contact NIOCCS user support by sending an email to NIOCCS@cdc.gov or calling 513-458-7133.

Users shall not attempt to access any data or programs on the NIOCCS system for which they do not have authorization.

Users shall not purposely engage in any activity with the intent to:

- o Degrade the performance of the system
- o Deprive an authorized user access to a resource
- o Obtain or attempt to obtain extra resources beyond those allocated
- o Circumvent security measures in order to gain access to any automated system for which proper authorization has not been granted

Users will access NIOCCS through a NIOCCS user account and password authentication. Each NIOCCS user will have a unique User Name and password for the system.

A user can only have one logged on session at a time. If a user logs in on one computer then tries to log on again at another workstation without logging out of the previous session, they will be given a choice of canceling the previous session or not continuing with the new log on. This business rule was made to protect a user's data from conflicting access to the same data files which may cause the data to become corrupt.

Each user is responsible for protecting his/her password. **Users are responsible for all actions performed with their account.** Users who believe their password has been compromised in any way should inform NIOSH. Users will supply a password that meets the NIOCCS requirements. (Passwords must be at least eight characters in length and must contain at least one capital letter, one lower case letter, and no spaces. The maximum number of characters in the password is 30.)

NIOCCS will provide a randomly generated password to the user via email when a user account is first set up or when a 'Forgot Password' request is made. Users must change the NIOCCS generated password at next logon.

NIOCCS System Administrators may periodically monitor both the system and user activities for purposes including, but not limited to, troubleshooting, performance assessment, usage patterns, indications of attack or misuse and the investigation of a complaint or suspected security incident.

NIOCCS System Administrators have access rights to all data and user information within the NIOCCS system.

NIOCCS System Administrators will not share or allow access to data submitted by users to other any person or entity.

NIOCCS System Administrators may review user's computer-assisted coded data periodically to analyze the data for possible inclusion into the NIOCCS knowledge base to improve overall efficiency and accuracy of coding. Once analyzed, NIOSH will delete user files from the CDC server if the file has expired or was removed by the user. A record of all file activity by the user is recorded in the system and can be viewed by the user at any time.

Acknowledgement and Agreement

I have read and agree to comply with the terms and conditions governing the appropriate and allowed use of NIOCCS as defined by this document, applicable agency policy, and Federal law. The act of acknowledgement and agreement signifies a clear understanding of the NIOCCS Rules of Behavior document and that the signer will conform to the rules provided therein.

I acknowledge receipt of, understand my responsibilities, and will comply with the rules of behavior for NIOCCS.

After clicking the **I acknowledge** box from the **Rules of Behavior** screen, the **My Profile** screen will appear *requiring the user to change their password*.

Enter a new password in the **New Password** field and again in the **Confirm Password** field. Then click the **Change Password** button.

NIOSH Industry and Occupation Computerized Coding System (NIOCCS)

NIOSH > [NIOCCS HOME](#)

[Coding](#) [Account](#) [Help](#) currently logged on as Bob Lecoder@ABC.edu [Logoff](#)

My Profile

Organization: NIOSH

Contact Phone #:

Default I&O Coding Scheme:

Default Autocoding Confidence Level:

PLEASE CREATE A NEW PASSWORD

New Password:

Confirm Password:

[Password Requirements](#)

After clicking the **Change Password** button the following screen will appear, confirming that the password has been changed.

NIOSH Industry and Occupation Computerized Coding System (NIOCCS)

NIOSH > [NIOCCS HOME](#)

[Coding](#) [Account](#) [Help](#) currently logged on as Bob Lecoder@ABC.edu [Logoff](#)

My Profile

Organization: NIOSH

Contact Phone #:

Default I&O Coding Scheme:

Default Autocoding Confidence Level:

New Password:

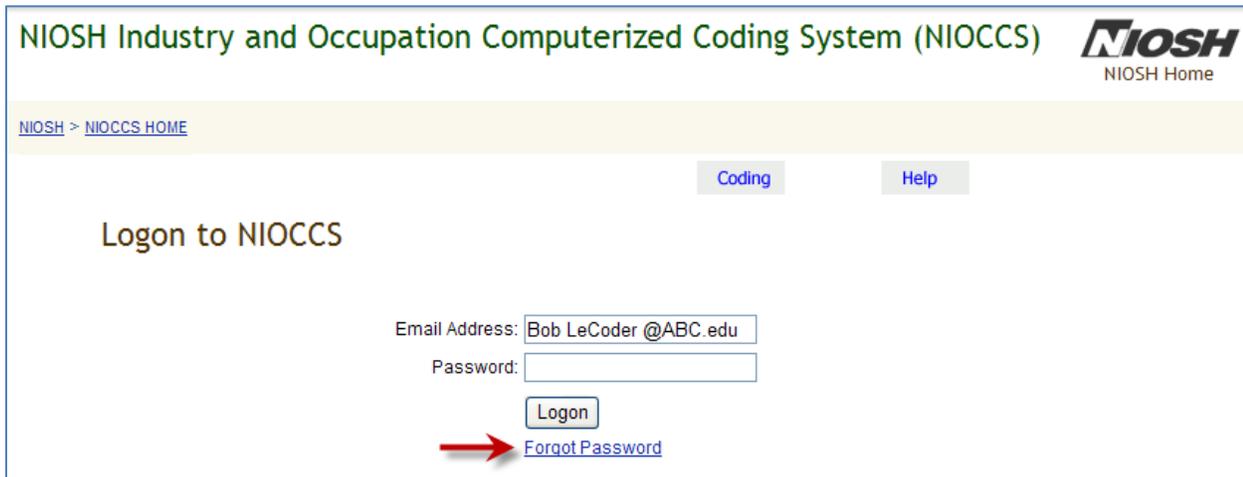
Confirm Password:

[Password Requirements](#)

Password Changed

2.2.2 Forgot Password

If a user has forgotten their password, they can click the **Forgot Password** link on the Logon screen to request a new password from NIOSH.



NIOSH Industry and Occupation Computerized Coding System (NIOCCS)  NIOSH Home

[NIOSH > NIOCCS HOME](#)

[Coding](#) [Help](#)

Logon to NIOCCS

Email Address:

Password:

 [Forgot Password](#)

The user will be required to enter their **Email Address**, enter the Captcha security code, then click the **Submit** button as demonstrated below.



NIOSH Industry and Occupation Computerized Coding System (NIOCCS)  NIOSH Home

[NIOSH > NIOCCS HOME](#)

 Share [Coding](#) [Help](#)

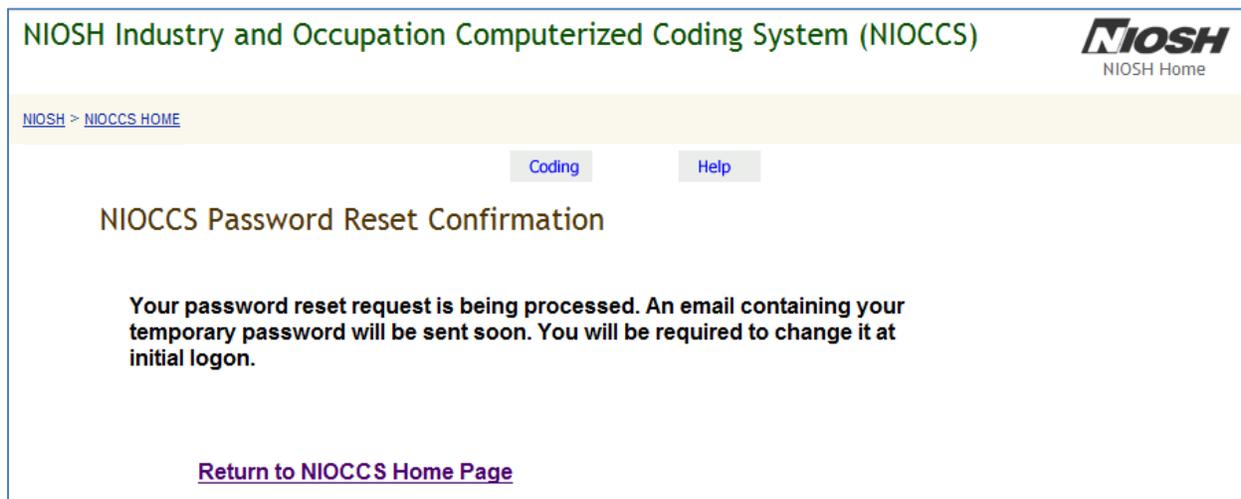
Password Reset Request

Enter Email Address used with NIOCCS account:



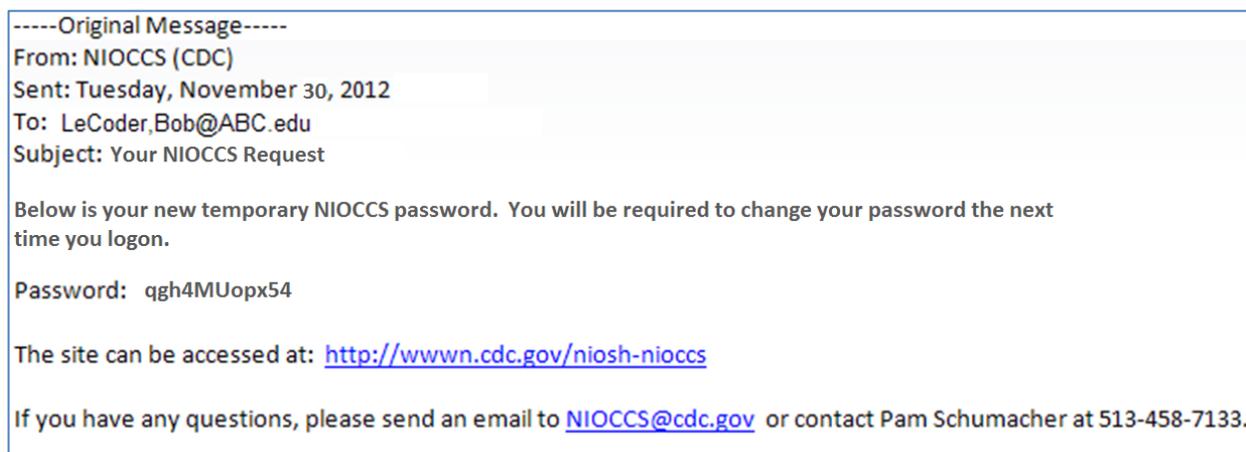
Once the user clicks the **Submit** button from the **Password Reset Request** screen, a new password will be generated by a NIOCCS system administrator and emailed to the user.

Confirmation that the request was received and processed will be displayed on the screen as shown below. At next logon, the user will be required to change the *temporary* password to a new password via the **My Profile** screen.



The screenshot shows the NIOCCS website interface. At the top left, it says "NIOCCS Industry and Occupation Computerized Coding System (NIOCCS)". At the top right is the NIOSH logo with "NIOSH Home" underneath. Below the header is a navigation bar with "Coding" and "Help" buttons. The main content area is titled "NIOCCS Password Reset Confirmation" and contains the message: "Your password reset request is being processed. An email containing your temporary password will be sent soon. You will be required to change it at initial logon." At the bottom of the message area is a link: "Return to NIOCCS Home Page".

The user will receive an email once a new temporary password has been created.



The screenshot shows an email message. The header includes: "-----Original Message-----", "From: NIOCCS (CDC)", "Sent: Tuesday, November 30, 2012", "To: LeCoder,Bob@ABC.edu", and "Subject: Your NIOCCS Request". The body of the email states: "Below is your new temporary NIOCCS password. You will be required to change your password the next time you logon." followed by "Password: qgh4MUopx54". It then provides the URL: "The site can be accessed at: <http://wwwn.cdc.gov/niosh-nioccs>". At the end, it says: "If you have any questions, please send an email to NIOCCS@cdc.gov or contact Pam Schumacher at 513-458-7133."

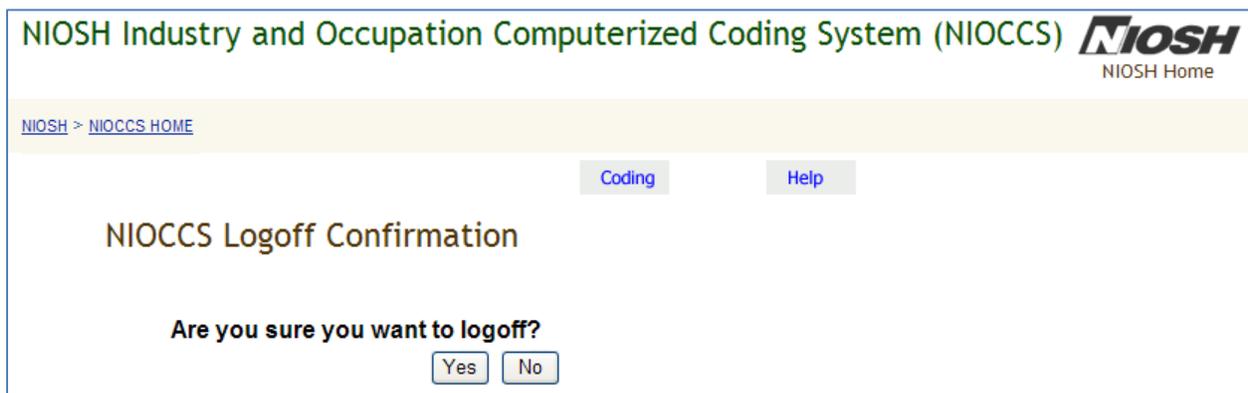
NOTE: NIOSH will process password reset requests as soon as possible however users should be aware that this is not a completely automated process so there could be some delay in receiving a new password.

2.3 Logging Off

If a user is logged into NIOCCS, a message is displayed in the upper right portion of the screen stating: *currently logged on as..... user email*. At any time, on any screen, the user may logoff the NIOCCS system by clicking the **Logoff** link on the upper, right portion of the screen.



After clicking **Logoff**, the following **NIOCCS Logoff Confirmation** screen will appear.



If the user clicks **YES**, the user is returned to the NIOCCS Home Page.

If the user clicks **NO**, the user will be taken back to the page they were on when **Logoff** was clicked.

3 NIOCCS HOME PAGE (LOGGED ON)

Below is an example of the NIOCCS Home page after the user has logged on. The menu at the top now includes **Account** and **Logoff** menu options and displays the user account that is currently logged on.

NIOSH Industry and Occupation Computerized Coding System (NIOCCS)

NIOSH Home

NIOSH > NIOCCS HOME

+ Share

Coding Account Help

currently logged on as Bob_Lecoder@ABC.edu Logoff

Welcome to NIOCCS

Check Autocoding Progress

Summary of Your Files

I&O Coding Files	Uploaded:	5
	Autocoded:	5
	Historical:	27

Crosswalk Files	Uploaded:	0
	Autocoded:	0
	Historical:	6

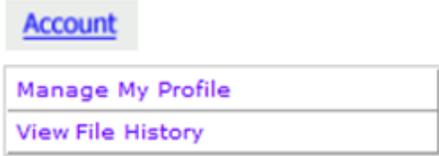
News / Updates

NOTICE: 7/8/2014 - We are experiencing technical difficulties with **password requests**, please submit request directly to NIOCCS@cdc.gov until further notice.

NOTE: Users may have issues using NIOCCS with browsers other than internet explorer.

Upcoming NIOCCS training class - September 19, Raleigh, North Carolina
Email PSchumacher@cdc.gov for more details.

NIOCCS Home Page features (Logged On)	
<p>Coding menu drop-down</p> <p><i>Notice that the Coding menu now contains more options for the logged on user.</i></p>	

NIOCCS Home Page features (Logged On)	
Account menu item appears	
Summary of Your Files	<p>This section of the screen provides the user with a quick summary of files they have uploaded or coded. It is grouped by the type of file: I&O Coding or Crosswalk.</p>
Check Autocoding Progress link	<p>Users can click this link to open a pop-up window that will display the status of jobs submitted for autocoding. (See Chapter 6.5 Autocode File Status screen for more information about this option)</p>

In the **Summary of Your Files** section of the logged on NIOCCS Home Page screen, users can click on any of the underlined counts to view more details about the files in that group as shown below.

Summary of Your Files

I&O Coding Files	Uploaded:	<u>3</u>
	Autocoded:	<u>5</u>
	Historical:	<u>27</u>
Crosswalk Files	Uploaded:	<u>0</u>
	Autocoded:	<u>0</u>
	Historical:	<u>6</u>



Uploaded File Status

Show All
 Show I/O Files Only
 Show Crosswalk Files Only
 Filter by:

« < 1 > » Records Per Page: Click [Select](#) on a desired row to code or remove the file.

File	Loaded Date	Size (KB)	# Records	Status	Expiration Date
Select IO_Coding_Example1.txt	11/27/2012 3:54:19 PM	2	17	Uploaded	1/26/2013 3:54:19 PM
Select Example2_I_O coding file.txt	10/12/2012 10:17:01 AM	3	50	Uploaded	12/31/2012 12:00:00 A
Select Example1_Input_File_I&O.txt	10/12/2012 9:39:25 AM	1	13	Uploaded	12/31/2012 12:00:00 A

4 MY PROFILE

Each NIOCCS user will have a user profile. User profiles are used to store user contact information, enable modification to passwords, and establish NIOCCS system default preferences.

To access and manage information in the profile, the user must be logged on then hover on the **Account** menu item and click **Manage My Profile** from the drop-down list.



The **My Profile** screen will appear as shown in the example below:

The screenshot displays the 'My Profile' page of the NIOSH Industry and Occupation Computerized Coding System (NIOCCS). The page header includes the NIOSH logo and 'NIOSH Home'. A navigation bar contains links for 'Coding', 'Account', and 'Help', along with the user's current login status: 'currently logged on as BobLeCoder@gmail.com' and a 'Logoff' link. The main content area is titled 'My Profile' and contains the following fields and controls:

- Organization: NIOSH
- Contact Phone #:
- Default I&O Coding Scheme: (dropdown menu)
- Default Autocoding Confidence Level: (dropdown menu)
-
- New Password:
- Confirm Password:
-
- [Password Requirements](#)

4.1 Updating Profile Information

To update profile information, the user will enter new values in any of the fields provided on the **My Profile** screen then click the **Update Profile** button.

A message “PROFILE UDPDATED” will appear indicating the change was made in the system.

NIOSH Industry and Occupation Computerized Coding System (NIOCCS) 

NIOSH > [NIOCCS HOME](#)

[Coding](#) [Account](#) [Help](#) currently logged on as Bob Lecoder@ABC.edu [Logoff](#)

My Profile

Organization: NIOSH
Contact Phone #: 513-666-1234
Default I&O Coding Scheme: CENSUS 2002
Default Autocoding Confidence Level: MEDIUM

 [Update Profile](#) **PROFILE UPDATED**

New Password: [Password Requirements](#)
Confirm Password:
[Change Password](#)

NOTE: *If a user needs to change their email address and/or organization information, they will need to contact NIOSH using the **Contact Us / Feedback** option under the **Help** menu. Since the user’s email address is used as the NIOCCS account ID, only a NIOCCS System Administrator can make this change.*

4.2 Default System Preferences

There are two system settings which the user can set as default preferences to be used during the coding or crosswalk processes. Setting default values for these options means that the values chosen will be displayed as the default values in coding and crosswalk processing screens. These settings make using the system easier and can be changed for any individual coding or crosswalk submission as needed.

On the **My Profile** screen, users can select preferences for the following system options:

System Setting	Purpose	Valid Options
Default I&O Coding Scheme	<p>Prior to submitting records to be coded by NIOCCS, the user must choose which standardized I&O coding scheme to use to code the data.</p> <p><i>(See Chapter 6.3 - Submitting a File for Autocoding).</i></p> <p>The default I&O coding scheme chosen in My Profile will be the coding scheme that is automatically displayed in the autocoding options screen.</p>	<p>Census 2000 (includes NAICS 1997 & SOC 2000)</p> <p>Census 2002 (includes NAICS 2002 & SOC 2000)</p> <p>Census 2010 (includes NAICS 2007 & SOC 2010)</p>
Default Autocoding Confidence Level	<p>Users will be able to select a confidence level setting which NIOCCS will use to determine if the I&O text will be automatically coded. This feature allows users to select different thresholds for accuracy and production rates.</p> <p><i>(See Chapter 5 - Autocoding Confidence Levels for more information).</i></p> <p>The default autocoding confidence level chosen in My Profile will be the confidence level that is automatically displayed in the autocoding options screen.</p>	<p>High (90% confidence in autocode results)</p> <p>Medium (70% confidence in autocode results)</p>

4.3 Change Password

A user can change their password by going to the **My Profile** screen. Enter a new password in the **New Password** field and the same value in the **Confirm Password** field, then click the **Change Password** button.

NIOSH Industry and Occupation Computerized Coding System (NIOCCS) 

[NIOSH](#) > [NIOCCS HOME](#)

[Coding](#) [Account](#) [Help](#) currently logged on as [BobLeCoder@gmail.com](#) [Logoff](#)

My Profile

Organization: NIOSH
Contact Phone #:
Default I&O Coding Scheme:
Default Autocoding Confidence Level:

New Password:
Confirm Password:
 [Password Requirements](#)



If the password was changed successfully, a message will be displayed stating that the password was changed. The user will use the new password for all subsequent logon attempts.

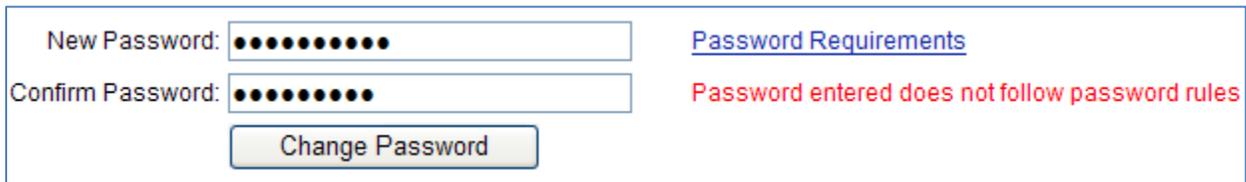
New Password:
Confirm Password:
 [Password Requirements](#)
Password Changed

If the two values entered for the password are not equal, the user will receive the following error message:



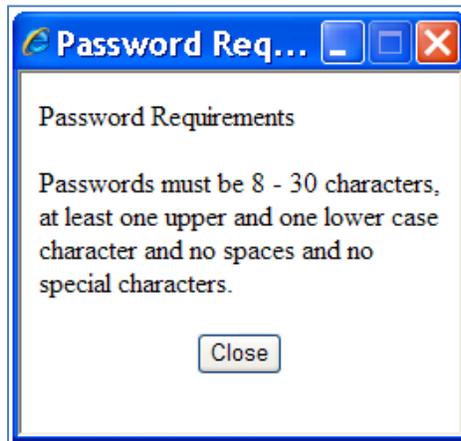
The screenshot shows a web form for changing a password. It contains two input fields: "New Password:" and "Confirm Password:". Below the "Confirm Password:" field is a "Change Password" button. To the right of the input fields is a blue link labeled "Password Requirements". Below the "Change Password" button, a red error message reads "Password and Confirm Password must match".

If the password entered does not follow the required password rules, the following error message will be displayed:



The screenshot shows the same password change form as above. Both the "New Password:" and "Confirm Password:" fields are filled with ten black dots. The "Change Password" button is visible. The "Password Requirements" link is present. A red error message below the button states "Password entered does not follow password rules".

Password Requirements:



5 AUTOCODING CONFIDENCE LEVELS

Users can select between two thresholds for coding accuracy using the confidence level setting option. Records that meet the confidence level threshold selected will be automatically coded. Records where only one code is automatically assigned or where neither industry nor occupation are automatically coded, are made available for coding manually in the computer-assisted coding module of the system. NIOCCS will provide matched candidates found in the computer-assisted module for the user to review.

NOTE: *The higher confidence level setting selected will result in higher accuracy of the coded results; however it may reduce the number of records automatically coded. (See Appendix D. for more information about production and accuracy rates).*

Confidence Levels (CL)

High - If records are processed using the HIGH confidence level setting, then only matched candidates where NIOCCS has **90% or greater confidence of accuracy** will be automatically coded.

Medium - If records are processed using the MEDIUM confidence level setting, then only matched candidates where NIOCCS has **70% or greater confidence of accuracy** will be automatically coded.

Autocoding Confidence Level (CL) Example #1

A record submitted for autocoding has the following input industry and occupation text.

Industry Title: HOSPITAL
Occupation Title: REGISTERED NURSE

If the user chooses to code this record using the **HIGH** CL, it would be autocoded because NIOCCS found one match for industry and one match for occupation with a confidence level at or above 90%. *See the results for Example #1 below.*

Industry Title:	<input type="text" value="HOSPITAL"/>												
Occupation Title:	<input type="text" value="REGISTERED NURSE"/>												
Autocoding Confidence Level: HIGH => 90% Confidence													
1 Ind Matches	1 Occ Matches												
<table border="1"><thead><tr><th>Confidence Level</th><th>Ind Code</th><th>Ind Matched</th></tr></thead><tbody><tr><td>HIGH</td><td>8190</td><td>HOSPITALS</td></tr></tbody></table>	Confidence Level	Ind Code	Ind Matched	HIGH	8190	HOSPITALS	<table border="1"><thead><tr><th>Confidence Level</th><th>Occ Code</th><th>Occ Matched</th></tr></thead><tbody><tr><td>HIGH</td><td>3130</td><td>REGISTERED NURSES</td></tr></tbody></table>	Confidence Level	Occ Code	Occ Matched	HIGH	3130	REGISTERED NURSES
Confidence Level	Ind Code	Ind Matched											
HIGH	8190	HOSPITALS											
Confidence Level	Occ Code	Occ Matched											
HIGH	3130	REGISTERED NURSES											

Autocoding Confidence Level (CL) Example #2

A record submitted for autocoding has the following input industry and occupation text.
(Note: the industry is spelled incorrectly).

Industry Title: ENSURANCE
Occupation Title: ACCOUNT EXECUTIVE

If the user chooses to code this record using the **HIGH** CL, it would *NOT* be autocoded because NIOCCS would not find a match for the industry title with a confidence level for accuracy at or above 90%. See the results for Example #2 below.

Industry Title:	ENSURANCE																		
Occupation Title:	ACCOUNT EXECUTIVE																		
Autocoding Confidence Level: HIGH = > 90% Confidence																			
0 Ind Matches	5 Occ Matches																		
	<table border="1"><thead><tr><th>Confidence Level</th><th>Occ Code</th><th>Occ Matched</th></tr></thead><tbody><tr><td>HIGH</td><td>4810</td><td>ACCOUNT EXECUTIVE</td></tr><tr><td>HIGH</td><td>0040</td><td>ACCOUNT EXECUTIVE</td></tr><tr><td>HIGH</td><td>4850</td><td>ACCOUNT EXECUTIVE</td></tr><tr><td>HIGH</td><td>4800</td><td>ACCOUNT EXECUTIVE</td></tr><tr><td>HIGH</td><td>4820</td><td>ACCOUNT EXECUTIVE</td></tr></tbody></table>	Confidence Level	Occ Code	Occ Matched	HIGH	4810	ACCOUNT EXECUTIVE	HIGH	0040	ACCOUNT EXECUTIVE	HIGH	4850	ACCOUNT EXECUTIVE	HIGH	4800	ACCOUNT EXECUTIVE	HIGH	4820	ACCOUNT EXECUTIVE
Confidence Level	Occ Code	Occ Matched																	
HIGH	4810	ACCOUNT EXECUTIVE																	
HIGH	0040	ACCOUNT EXECUTIVE																	
HIGH	4850	ACCOUNT EXECUTIVE																	
HIGH	4800	ACCOUNT EXECUTIVE																	
HIGH	4820	ACCOUNT EXECUTIVE																	

Although no matches are found for Industry (0 Ind Matches), 5 candidates are found for occupation (5 Occ Matches). Since NIOCCS could not find a match for both industry and occupation at a 90% confidence level, the record would be set aside for computer-assisted coding.

Why are there 5 occupation matches all with the same occupation title?

In example #2, NIOCCS found 5 records in the Census Occupation Alphabetical Index with an exact match for 'Account Executive', each with a different occupation code. This is because each of the Census occupation codes has an industry restriction rule associated with it. (See the section on **Industry Restrictions in the Census Occupation Index** in Chapter 6.6.2.4). Since NIOCCS could not find a match for industry, it could not apply any of the industry restriction rules to limit the number of occupation matches. Below is an excerpt from the Census Occupation Alpha Index for this job title that lists the industry restriction rules for each occupation code for 'Account executive'.

Census Occupation Code	OCCUPATION TITLE	Census Industry Restriction
4810	Account executive	6990
0040	Account executive	7470
4850	Account executive	\ Any not listed
		6470, 6670, 6680, 7280, 7390
4800	Account executive	7390
4820	Account executive	6870-6970

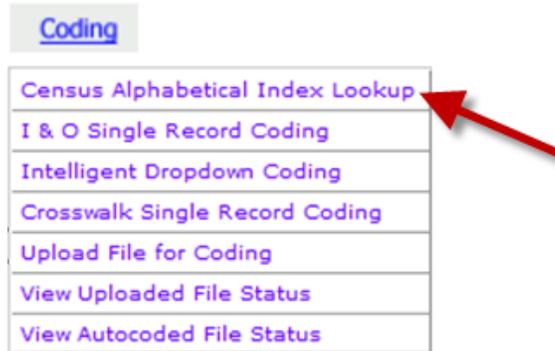
If the user chooses to code this record using the **MEDIUM** CL, the industry and occupation would be autocoded. One match was found for industry (6990) at or above 70% confidence and three matches were found for occupation (4810, 4850, 0420) at or above 70% CL. NIOCCS would select the occupation code (4810) as the correct code because this code has an industry restriction rule which restricts the occupation code to 4810 if the industry code is 6990. (See section **Industry Restrictions in the Census Occupation Index** in Chapter 6.6.2.4 for more information about industry restrictions). The results for the MEDIUM CL is in the screen below.

Autocoding Confidence Level: MEDIUM = > 70% Confidence					
1 Ind Matches			3 Occ Matches		
Confidence Level	Ind Code	Ind Matched	Confidence Level	Occ Code	Occ Matched
MEDIUM	<u>6990</u>	INSURANCE \ N.S. OR ANY OTHER SPECIFIED TYPE	HIGH	<u>4810</u>	ACCOUNT EXECUTIVE
			HIGH	<u>4850</u>	ACCOUNT EXECUTIVE
			MEDIUM	<u>0420</u>	SCOUT EXECUTIVE

Notice that the list of occupation matches was reduced to only two of the five 'Account Executive' candidates. This is because industry restriction rules were applied to the occupation candidates based on the industry candidate.

6 INDUSTRY AND OCCUPATION CODING

6.1 CDC / Census Alphabetical Index Lookup



6.1.1 Overview

The CDC / Census Alphabetical Index of Industries and Occupations lists industry and occupation titles used most often in the economy. These indexes were developed by the U.S. Census Bureau for use in classifying a respondents industry and occupation as reported in Census Bureau demographic surveys. They are comprehensive lists of specific industries and occupations developed over time and continuously updated through review of census and survey responses (<https://www.census.gov/people/io/methodology/indexes.html>). CDC/NIOSH has supplemented these indexes with special codes for unpaid workers, non-workers, and the military (see section 6.6.2.4 for details on the CDC/NIOSH unpaid worker codes).

The Alphabetical Indexes list over 21,000 industry and 31,000 occupation titles in alphabetical order. Each title has been assigned a Census Industry Code or Census Occupation Code. Additionally, the associated North American Industry Classification System (NAICS) code or Standard Occupational Classification (SOC) code is also provided for each title.

The NIOCCS autocoder and computer-assisted coding screens use these alphabetical indexes to aid in assigning CDC/Census industry and occupation category codes to records. For more detailed information about the Census Alphabetical Indexes, go to the U.S. Census Bureau website at: <https://www.census.gov/people/io/files/overview2010.pdf>

NOTE: For more detailed information on using the Census Alphabetical Indexes, see the **Guide to using the Census Alphabetical Index Lookup Feature in NIOCCS** on the NIOCCS Documentation page at:

<http://www.cdc.gov/niosh/topics/coding/pdfs/How%20to%20use%20the%20Census%20Alphabetical%20Lookup%20Feature.pdf>

6.1.2 Searching the CDC / Census Alphabetical Index

NIOCCS provides a user interface to search the CDC / Census Alphabetical Indexes by either industry or occupation titles or codes.

The screenshot shows the NIOCCS web interface. At the top, it says "NIOCCS HOME" and "NIOSH Home". There are social media buttons for "Recommend", "Tweet", and "Share". Below that are "Coding" and "Help" buttons. The main heading is "CDC/Census Alphabetical Indexes". Underneath, there is a "Coding Scheme" dropdown menu set to "CENSUS 2002". Below that are two search sections: "Industry Index" and "Occupation Index". Each section has a "Find beginning with:" dropdown menu, a text input field, and "Go", "Next", and "Prev" buttons. The "Industry Index" section is highlighted with a red border, and the "Occupation Index" section is highlighted with a blue border.

The searching methods described below apply to both the Industry Index and the Occupation Index. The example uses the Industry Index.

- Select the Census Coding Scheme to search
- Enter the industry title (or partial title) to search in the industry index search box
- Click the **Go** button or hit the enter key

This annotated screenshot shows the same NIOCCS search interface as above. Red arrows labeled A, B, and C point to the "Coding Scheme" dropdown menu, the "Industry Index" search input field (which contains the word "railroad"), and the "Go" button of the "Industry Index" section respectively. A large blue arrow points downwards from the bottom of the search interface.

The Industry Index box will then display the page of the index where it finds the first entry that *begins with* the text entered. In this example, the first item in the industry index that begins with **'railroad'** is shown in bold in the box.

Notice that the index is now on page **748** of the industry index and that it is sitting on the first of **62 (1/62)** records in the industry index where the industry title *begins with* **'railroad'**.

CDC/Census Alphabetical Indexes

Coding Scheme: CENSUS 2002 ▼

Industry Index Find beginning with: 1/62

Title	Ind Code	NAICS	Occ Code
RAG CARPETS (MFG.)	1570	314110	
RAG HOUSE OR SHOP (WHSL)	4280	423930	
RAG MATS (MFG.)	1570	314110	
RAG MATTING (MFG.)	1570	314110	
RAG RUGS (MFG.)	1570	314110	
RAG SALVAGE CO. (WHSL)	4280	423930	
RAGS (WHSL)	4280	423930	
RAGS, CARBONIZED (MFG.)	1490	313312	
RAIL BONDS, ELECTRIC (MFG.)	3490	335931	
RAIL FASTENINGS (MFG.)	2670	331111	
RAIL JOINTS (MFG.)	2670	331111	
RAIL LAYING EQUIPMENT (MFG.)	3670	336510	
RAILINGS, ORNAMENTAL METAL (MFG.)	2870	332323	
RAILINGS, WOODEN (MFG.)	3770	321113	
RAILROAD I N.S.	6080	4821	
RAILROAD BARGE	6080	482112	
RAILROAD BUMPING POSTS FORGED (MFG.)	2780	332111	
RAILROAD CAR BEARINGS (MFG.)	3180	333613	
RAILROAD CAR SHOP, REPAIR	6290	488210	
RAILROAD CAR WHEELS (MFG.)	2770	331511	

« < ... [745](#) [746](#) [747](#) **[748](#)** ... > »

To page through the index for all industry titles that begin with 'railroad', click the > arrow at the bottom of the industry index box.



Coding Scheme: CENSUS 2002 ▾

Industry Index Find beginning with: ▾ railroad Go Next Prev 1/62

Title	Ind Code	NAICS	Occ Code
RAILROAD CARS, CLEANING SERVICE	6290	488210	
RAILROAD CARS, COOLING AND HEATING SERVICE	6290	488210	
RAILROAD CARS, LEASING SERVICE	7190	532411	
RAILROAD COMPANY	6080	48211	
RAILROAD CONSTRUCTION	0770	238910	
RAILROAD CONSTRUCTION BY CONTRACTOR	0770	238910	
RAILROAD CROSS TIES, TREATED (MFG.)	3770	321114	
RAILROAD DIESEL	6080	48211	
RAILROAD DOCKS	6290	488210	
RAILROAD ELECTRIC	6080	48211	
RAILROAD EQUIPMENT AND SUPPLIES (WHSL.)	4270	423860	
RAILROAD EQUIPMENT MODELS, HOBBY OR TOY (MFG.)	3970	339932	
RAILROAD FERRY	6090	48311	
RAILROAD FREIGHT	6080	482111	
RAILROAD FUSEES (MFG.)	2290	325998	
RAILROAD GANG	6290	488210	
RAILROAD HARDWARE (MFG.)	2980	332510	
RAILROAD LOGGING CAMP	0270	113310	
RAILROAD MACHINE SHOP	6290	488210	
RAILROAD MODELS, HOBBY OR TOY (MFG.)	3970	339932	

< < ... **749** 750 751 752 ... > >

Notice that the next page in the index displays more industry titles that begin with 'railroad'. To page backwards, click the < arrow. Specific page numbers can also be clicked to jump to that page in the index.

To search for a more specific industry title, add more text to the search box, as shown below. Notice that the first item in the index that begins with the entire text entered is now displayed in bold text and it is the first of 2 items found that begin with that text.

Coding Scheme: CENSUS 2002 ▼

Industry Index

Find beginning with: ▼

railroad construction

Go

Next

Prev 1/2

Title	Ind Code	NAICS	Occ Code
RAILROAD CARS, CLEANING SERVICE	6290	488210	
RAILROAD CARS, COOLING AND HEATING SERVICE	6290	488210	
RAILROAD CARS, LEASING SERVICE	7190	532411	
RAILROAD COMPANY	6080	48211	
RAILROAD CONSTRUCTION	0770	238910	
RAILROAD CONSTRUCTION BY CONTRACTOR	0770	238910	
RAILROAD CROSS TIES, TREATED (MFG.)	3770	321114	
RAILROAD DIESEL	6080	48211	
RAILROAD DOCKS	6290	488210	
RAILROAD ELECTRIC	6080	48211	
RAILROAD EQUIPMENT AND SUPPLIES (WHSL.)	4270	423860	
RAILROAD EQUIPMENT MODELS, HOBBY OR TOY (MFG.)	3970	339932	
RAILROAD FERRY	6090	48311	
RAILROAD FREIGHT	6080	482111	
RAILROAD FUSEES (MFG.)	2290	325998	
RAILROAD GANG	6290	488210	
RAILROAD HARDWARE (MFG.)	2980	332510	
RAILROAD LOGGING CAMP	0270	113310	
RAILROAD MACHINE SHOP	6290	488210	
RAILROAD MODELS, HOBBY OR TOY (MFG.)	3970	339932	

« < ... 749 750 751 752 ... > »

The indexes can also be searched for text that may appear anywhere within a given industry or occupation title. For example, to search for all entries in the industry index that *contains* the word 'railroad', enter the text in the search box, select **Find containing** from the search option drop down list, then click **Go** as shown below.

Coding Scheme: CENSUS 2002

Industry Index Find beginning with: railroad Go Next Prev

Find beginning with
Find containing:

Title	Ind Code	NAICS	Occ Code
RAILROAD CARS, CLEANING SERVICE	6290	488210	
RAILROAD CARS, COOLING AND HEATING SERVICE	6290	488210	
RAILROAD CARS, LEASING SERVICE	7190	532411	
RAILROAD COMPANY	6080	48211	
RAILROAD CONSTRUCTION	0770	238910	
RAILROAD CONSTRUCTION BY CONTRACTOR	0770	238910	
RAILROAD CROSS TIES, TREATED (MFG.)	3770	321114	



Industry Index Find containing: railroad Go Next Prev 1/143

Title	Ind Code	NAICS	Occ Code
ASPHALT PRODUCTS (MFG.)	2090	32412	
ASPHALT ROOFING (MFG.)	2090	324122	
ASPHALT ROOFING (WHSL)	4090	423330	
ASPHALTED-FELT-BASE FLOOR COVERING (MFG.)	2370	326192	
ASPHALTIC CONCRETE (MFG.)	2090	324121	
ASPHALTING PRIVATE DRIVEWAYS (CONST.)	0770	238990	
ASPHALTING PRIVATE PARKING AREAS (CONST.)	0770	238990	
ASSAY OFFICE	7290	541380	
ASSAYING SERVICE	7290	541380	
ASSEMBLY HALL FURNITURE (MFG.)	3890	337127	
ASSISTED LIVING FACILITIES, WITH NURSING CARE	8270	623110	
ASSISTED LIVING FACILITIES, WITHOUT NURSING CARE	8290	623312	
ASSOCIATED PRESS	6780	519110	
ASSOCIATION FOR RETARDED CITIZENS	9170	813311	
ASSOCIATION FOR SENIOR CITIZENS	9170	813311	
ASSOCIATION FOR THE BLIND	9170	813311	
ASSOCIATION OF AMERICAN RAILROADS	9190	813920	
ASSOCIATIONS FOR RETIRED PERSONS, ADVOCACY	9170	813311	
ASSURANCE CO.	6990	524298	
ASTRINGENT (MFG.)	2190	325412	

« < 41 42 43 44 ... > »

Notice that the index is now on page 41 and the first item in the index that contains the word 'railroad' anywhere in the industry title is in bold text. This is the first of 143 items in the index that *contain* the text entered.

To find the next item in the index that contains the text entered, click the **Next** button.

The index will then jump to the page containing the next item that has the word 'railroad' anywhere in the industry title, as shown below.

Industry Index Find containing: 2/143

Title	Ind Code	NAICS	Occ Code
BEHAVIOR CLINIC	8090	621420	
BELL FOUNDRY (MFG.)	2770	331511	
BELLEEK WARE (MFG.)	2470	327112	
BELLOWS ASSEMBLIES, MISSILES (MFG.)	3590	336419	
BELLOWS, EXC. HAND (MFG.)	3190	333999	
BELLOWS, HAND (MFG.)	2980	332999	
BELLS, ELECTRIC (MFG.)	3490	335999	
BELLS, MUSICAL INSTRUMENTS (MFG.)	3980	339992	
BELLS, TOY (MFG.)	3970	339932	
BELT CONVEYOR SYSTEMS (MFG.)	3190	333922	
BELT DRIVES (MFG.)	3180	333612	
BELT LINE RAILROADS	6080	482112	
BELTING BUTTS (MFG.)	1790	316110	
BELTING, FABRIC (MFG.)	1590	314999	
BELTING, LEATHER (MFG.)	1790	316110	
BELTING, RUBBER (MFG.)	2390	326220	
BELTINGS, MADE IN TEXTILE MILL (MFG.)	1480	313230	
BELTS, APPAREL (MFG.)	1690	315999	
BELTS, CORRECTIVE (MFG.)	3960	339113	
BELTS, GARTER (MFG.)	1680	315212	

« < ... [81](#) [82](#) [83](#) **[84](#)** ... > »

6.1.3 The Industry Alphabetical Index

The Industry Index box displays four columns:

- Industry Title (**Title**)
- CDC / Census Industry code (**Ind Code**)
- North American Industry Classification System (**NAICS**)
- NIOSH Occupation Code (**Occ Code**)

Coding Scheme: CENSUS 2002

Industry Index Find beginning with: Go Next Prev

Title	Ind Code	NAICS	Occ Code
HOSPITAL INSURANCE	6990	524114	
HOSPITAL LAUNDRY	8190	622110	
HOSPITAL MANAGEMENT	7780	561210	
HOSPITAL SERVICE PLANS	6990	524114	
HOSPITAL SUPPLIES (MFG.)	3960	339111	
HOSPITAL SUPPLIES (WHSL.)	4170	423450	
HOSPITAL UNIFORMS (MFG.)	1680	315299	
HOSPITAL, ANIMAL	7480	541940	
HOSPITAL, CONVALESCENT	8270	623110	
HOSPITALITY SERVICE	7670	561591	
HOSPITALIZATION BENEFITS	6990	524114	
HOSPITALIZATION INSURANCE CO.	6990	524114	
HOSPITALIZATION SERVICE CO.	6990	524114	
HOSPITALIZATION, GROUP	6990	524114	
HOSTELS	8660	721199	
HOT AIR REGISTERS (MFG.)	2870	332323	
HOT DOG STAND (RET.)	8680	722330	
HOT DOGS EXC. POULTRY (MFG.)	1180	31161	
HOT DOGS, POULTRY (MFG.)	1180	311615	
HOT ROLLED IRON AND STEEL PRODUCTS (MFG.)	2670	331111	

« ‹ … [465](#) [466](#) [467](#) [468](#) … › »

Users can click on any of the **Ind Codes** to obtain a list of all CDC / Census titles that have been assigned this industry code.

HOSPITALIZATION INSURANCE CO.	6990	524114
HOSPITALIZATION SERVICE CO.	6990	524114
HOSPITALIZATION, GROUP	6990	524114
HOSTELS	8660	721199
HOT AIR REGISTERS (MFG.)	2870	332323
HOT DOG STAND (RET.)	8680	722330
HOT DOGS EXC. POULTRY (MFG.)	1180	31161
HOT DOGS, POULTRY (MFG.)	1180	311615



Category: Traveler accommodation

Ind Code	Title	NAICS
8660	AUTO COURT	721110
8660	AUTO INN	721110
8660	BANQUET, HOTEL	721110
8660	BED AND BREAKFAST	721191
8660	BOATEL	721199
8660	CABINS, TOURIST	721119
8660	CAFE, HOTEL	721110
8660	CASINO AND DINNER CLUB	721120
8660	CASINO HOTEL	721120
8660	COFFEE SHOP OF HOTEL	721110
8660	COTTAGE CAMP	721199
8660	DINING ROOM, HOTEL	721110
8660	GUEST HOUSE	721199
8660	GUEST RANCH	721199
8660	HEALTH CAMP	721110
8660	HEALTH RESORT	721110
8660	HEALTH SPA ACCOMODATIONS \ N.S.	721110
8660	HEALTH SPA, WITH ACCOMODATIONS	721110
8660	HOME, TOURIST	721199
8660	HOSTELS	721199
8660	HOTEL \ N.S. OR OTHER SPECIFIED ALL OTHER OCCUPATIONS	721110
8660	HOTEL AND CASINO	721120

(partial list)

Users can also click on the NAICS code to obtain the NAICS code description that is associated with that Census Code.

HOSPITALIZATION INSURANCE CO.	6990	524114
HOSPITALIZATION SERVICE CO.	6990	524114
HOSPITALIZATION, GROUP	6990	524114
HOSTELS	8660	721199
HOT AIR REGISTERS (MFG.)	2870	332323
HOT DOG STAND (RET.)	8680	722330
HOT DOGS EXC. POULTRY (MFG.)	1180	31161
HOT DOGS, POULTRY (MFG.)	1180	311615



721199 All Other Traveler Accommodation^{US}

This U.S. industry comprises establishments primarily engaged in providing short-term lodging (except hotels, motels, casino hotels, and bed-and-breakfast inns).

Illustrative Examples:

Guest houses	Tourist homes
Housekeeping cabins and cottages	Youth hostels

6.1.4 The Occupation Alphabetical Index

The Occupation Index box displays four columns:

- Occupation/Job Title (**Title**)
- CDC / Census Occupation code (**Occ Code**)
- Industry Restriction Rule (**Ind Restriction**)
- Standard Occupation Code (**SOC**)

Occupation Index Find beginning with: Go Next

Title	Occ Code	Ind Restriction	SOC
OFFSET DUPLICATING MACHINE SET UP OPERATOR	8260		51-5023
OFFSET LITHOGRAPHIC PRESS SETTER/SET UP OPERATOR	8260		51-5023
OFFSET MACHINE OPERATOR	8260		51-5023
OFFSET PLATE MAKER	8250		51-5022
OFFSET PLATEMAKER	8250		51-5022
OFFSET PRESS OPERATOR	8260	(1990)	51-5023
OFFSET PRINTER	8260	(1990)	51-5023
OFFSETTING MACHINE, HAND	5900		43-9071
OIL AGENT	0410	(0370)	11-9141
OIL ANALYST	1930	(2070)	19-4041
OIL BOILER	8730		51-9051
OIL BURNER	8040	2670- 3690, 6080, 8870	51-4051
OIL BURNER INSTALLER	7310		49-9021
OIL CHANGER	9360		53-6031
OIL DELIVERER	9130	(4490)	53-3032
OIL DERRICK OPERATOR	6800	0370	47-5011
OIL DEVELOPER	6200	#0370	47-1011
OIL DISPATCHER	5520	6680, 6690	43-5032
OIL DISPATCHER	9000	EXC. 6680, 6690	53-1031
OIL DISTRIBUTOR	4850	(4490)	41-4012

« ‹ ‹ 925 926 927 928 › › »

Users can click on any of the **Occ Codes** to obtain a list of all CDC / Census titles that have been assigned this occupation code.

OIL BOILER	8730		51-9051
OIL BURNER	8040	2670- 3690, 6080, 8870	51-4051
OIL BURNER INSTALLER	7310		49-9021
OIL CHANGER	9360		53-6031
OIL DELIVERER	9130	(4490)	53-3032
OIL DERRICK OPERATOR	6800	0370	47-5011
OIL DEVELOPER	6200	#0370	47-1011
OIL DISPATCHER	5520	6680. 6690	43-5032



Category: Service Station Attendants

Occ Code	Title	Ind Restriction	Naics Restriction	SOC
9360	ATTENDANT \ N.S.	4490, 4670-4690, PR 5090, 5580, 8770	4247, 4411-4413, PR 4471, 4539, 8111	53-6031
9360	AUTO SELF SERVICE STATION ATTENDANT			53-6031
9360	AUTO SERVICE STATION ATTENDANT			53-6031
9360	AUTO SERVICER	PR 5090	PR 4471	53-6031
9360	BATTERY CHARGER	5580, 4670-4690, 5090, 8770-8780	441, 447, 4539, 8111	53-6031
9360	BOAT FUELER	(6090)	(483)	53-6031
9360	BUS GREASER			53-6031
9360	CAR GREASER	4670-4690, 5090, 5580, 8770, 9090	441, 4471, 4539, 811, 81293	53-6031
9360	CAR LUBRICATOR	4670-4690, 5090, 5580, 8770, 9090	441, 4471, 4539, 811, 81293	53-6031
9360	CAR SERVICER			53-6031

Users can also click on the SOC code to obtain the SOC description that is associated with that Census Code.

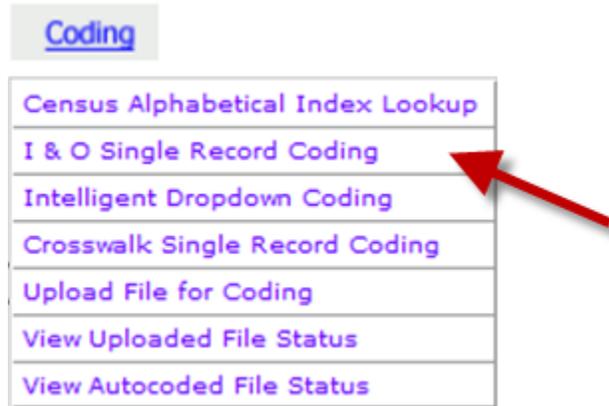
OIL BURNER	8040	2670-3690, 6080, 8870	51-4051
OIL BURNER INSTALLER	7310		49-9021
OIL CHANGER	9360		53-6031
OIL DELIVERER	9130	(4450)	53-3032
OIL DERRICK OPERATOR	6800	0370	47-5011
OIL DEVELOPER	6200	#0370	47-1011
OIL DISPATCHER	5520	6680, 6690	43-5032



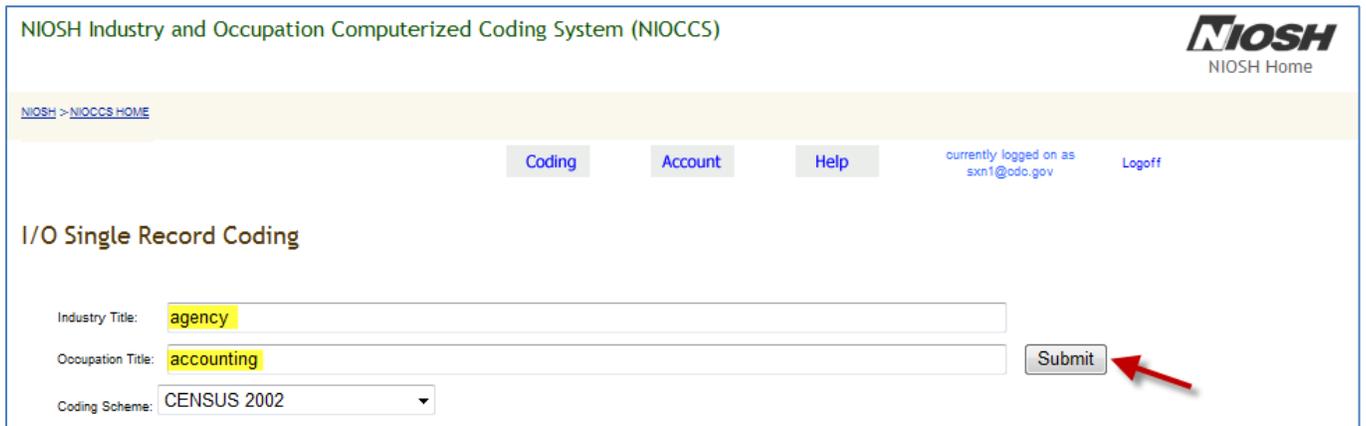
Code: 53-6031
Title: SERVICE STATION ATTENDANTS
Publish Year: 2000
Description:
 SERVICE AUTOMOBILES, BUSES, TRUCKS, BOATS, AND OTHER AUTOMOTIVE OR MARINE VEHICLES WITH FUEL, LUBRICANTS, AND ACCESSORIES. COLLECT PAYMENT FOR SERVICES AND SUPPLIES. MAY LUBRICATE VEHICLE, CHANGE MOTOR OIL, INSTALL ANTIFREEZE, OR REPLACE LIGHTS OR OTHER ACCESSORIES, SUCH AS WINDSHIELD WIPER BLADES OR FAN BELTS. MAY REPAIR OR REPLACE TIRES.

6.2 I&O Single Record Coding

Single record coding can be performed whether a user has a NIOCCS account or not. To access the I&O single record coding screen, hover on the **Coding** menu item and select **I&O Single Record Coding** from the drop-down list as shown below:



On the I&O Single Record Coding screen, the user can enter industry and/or occupation text in the fields provided, choose the **Census coding scheme**, then click the **Submit** button. NIOCCS will process the information and return results for the user to review.



A screenshot of the NIOCCS web application interface. The page title is "NIOSH Industry and Occupation Computerized Coding System (NIOCCS)". The NIOSH logo and "NIOSH Home" are in the top right. A navigation bar contains "Coding", "Account", and "Help" buttons. The user is logged in as "sxn1@odc.gov". The main heading is "I/O Single Record Coding". There are three input fields: "Industry Title" with "agency", "Occupation Title" with "accounting", and "Coding Scheme" with a dropdown menu set to "CENSUS 2002". A "Submit" button is on the right, with a red arrow pointing to it.



I&O Single Record Coding

Industry Title:

Occupation Title:

Coding Scheme:

Possible Matches:

Industry

Confidence	Level	Ind Code	Ind	Matched
HIGH		7590	AGENCY,BUSINESS	
LOW		9370	CITY AGENCY \ N.S.--OCCUPATION NOT LISTED OR N.S.	
LOW		4670	AUTO AGENCY (RET.)	
LOW		4070	AUTO AGENCY (WHSL.)	
LOW		8560	MODEL AGENCY	
LOW		8370	SOCIAL AGENCY	
LOW		7670	AGENCY,TRAVEL	
LOW		7270	AGENCY,PATENT	
LOW		6870	BANKING AGENCY	
LOW		6290	AGENCY,SHIPPING	

Occupation

Confidence	Level	Occ Code	Occ	Matched
HIGH		0800	ACCOUNTANT	
MEDIUM		5120	ACCOUNTING WORK (EXC. ACCOUNTANT),LESS THAN A	
MEDIUM		5110	ACCOUNTING MACHINE OPERATOR	
LOW		5240	MANAGER,ACCOUNT	
LOW		4850	ACCOUNT EXECUTIVE	
LOW		5100	ACCOUNTS COLLECTOR	
LOW		2200	TEACHER,ACCOUNTING	
LOW		5000	SUPERVISOR,ACCOUNTING	
LOW		2750	ACCOMPANIST	
LOW		5310	CHARGE ACCOUNT CLERK	

NIOCCS will display possible matches for the text entered in the **Industry** and **Occupation** boxes, including the confidence level for each candidate listed.

Users can click on any of the codes to get a list of all the Census titles that are associated with that code. This can help to determine the most appropriate code, especially if the input text is general. In this example below, the user has clicked on the **0800** occupation code to view the list. The list will also contain the SOC (for Occupation) or NAICS (for Industry) codes associated with the Census codes and titles.

Occupation

Confidence	Level	Occ Code	Occ	Matched
HIGH		0800	ACCOUNTANT	
MEDIUM		5120	ACCOUNTING WORK (EXC. ACCOUNTANT),LESS THAN A	
MEDIUM		5110	ACCOUNTING MACHINE OPERATOR	
LOW		5240	MANAGER,ACCOUNT	
LOW		4850	ACCOUNT EXECUTIVE	
LOW		5100	ACCOUNTS COLLECTOR	
LOW		2200	TEACHER,ACCOUNTING	
LOW		5000	SUPERVISOR,ACCOUNTING	
LOW		2750	ACCOMPANIST	
LOW		5310	CHARGE ACCOUNT CLERK	



(Partial list of 0800 Census occupation titles)

Category: Accountants and Auditors				
Occ Code	Title	Ind Restriction	Naics Restriction	SOC
0800	ACCOUNT AUDITOR			13-2011
0800	ACCOUNT OR ACCOUNTANT BOOKKEEPER, ASSOCIATE DEGREE OR HIGHER			13-2011
0800	ACCOUNTANT			13-2011
0800	ACCOUNTING CONSULTANT			13-2011
0800	ACCOUNTING METHODS ANALYST			13-2011
0800	ACCOUNTING SYSTEMS ANALYST			13-2011
0800	ACCOUNTING WORK, ACCOUNTANT			13-2011
0800	ACCOUNTING WORK, ASSOCIATE DEGREE OR HIGHER			13-2011
0800	AUDITOR			13-2011
0800	AUDITOR OF ACCOUNTS			13-2011
0800	BANK ACCOUNTANT	#6870	521, 52211, 52219	13-2011
0800	BUDGET ACCOUNTANT			13-2011
0800	BURSAR	#7870	6112, 6113	13-2011
0800	C.P.A.			13-2011
0800	CERTIFIED ACCOUNTANT	(7280)	(5412)	13-2011
0800	CERTIFIED PUBLIC ACCOUNTANT	(7280)	(5412)	13-2011
0800	CITY AUDITOR	#LGOV 9380	#92113	13-2011
0800	CONSULTANT, ACCOUNTING			13-2011
0800	COST ACCOUNTANT			13-2011
0800	COST EXPEDITER			13-2011
0800	COUNTY AUDITOR	#9380	#92113	13-2011
0800	FIELD AUDITOR			13-2011
0800	FINANCIAL ACCOUNTANT			13-2011
0800	FINANCIAL ADVISER	7280	5412	13-2011
0800	FINANCIAL ANALYST, EXC. STATISTICAL			13-2011
0800	FISCAL ACCOUNTANT			13-2011
0800	INDUSTRIAL ACCOUNTANT			13-2011
0800	INSPECTOR \ N.S.	6870	521, 52211, 52219	13-2011
0800	INTERNAL AUDITOR			13-2011
0800	MEDICAL ACCOUNTANT			13-2011

6.3 Uploading a File for I&O Coding

6.3.1 NIOCCS Input File Format Options for I&O Coding

Two options exist for submitting records to the NIOCCS system for I&O coding:

1. NIOCCS I&O Slim File Format
2. NIOCCS I&O Expanded File Format

The **NIOCCS Slim File Format** contains only 3 fields: Unique Identifier, Industry Title, and Occupation Title. This format should be used if no other additional information (i.e., employer name, job duties, etc.) is available.

Fields DO NOT need to be padded with spaces. Each field must be delimited by a Tab or Pipe character (|). **Each record submitted must have a value in the Unique Identifier field and must have at least one value in either the Industry Title or Occupation Title.**

Field	Field Sequence	Format	Max Length	Comments	
Unique Identifier	1	Alpha-Numeric	50	Required. Must be unique value per record. Example: 12345, or ID12345	
Industry Title	2	Alpha-Numeric	250	At least one of these two fields must contain a value.	Example: "Information Technology"
Occupation Title	3	Alpha-Numeric	250		Example: "Consultant"

Example NIOCCS Slim File Format:

ID	Ind title	Occ title
2009000091	TELEPHONE COMPANY	AREA MANAGER
2009000107	NURSING	LICENSED PRACTICAL NURSE
2009000122	LOGGING	LOGGER
2009000123	GOVERNMENT FINANCE	ACCOUNTANT
2009000130	FEDERAL GOVERNMENT	OFFICE WORKER
2009000168	DISTRIBUTION/SHIPPING	DRIVER
2009000175	STATE OF WASHINGTON	DRIVER'S LICENSE EXAMINER
2009000182	CONSTRUCTION	CARPENTER
2009000220	OWN HOME	HOMEMAKER
2009000231	DENTISTRY	OWNER OPERATOR
2009000290	OWN HOME	HOMEMAKER

The **NIOCCS Expanded File Format** should be used if additional information is available that would support the computer-assisted coding of the records. Although NIOCCS currently only uses industry and occupation text in the autocoding engine, additional information can help users to select correct I&O codes on records that are not autocoded.

Fields DO NOT need to be padded with spaces to fill unused positions. However, each field, including optional fields must be delimited by a Tab or Pipe character (|). **Each record submitted must have a value in the Unique Identifier field and must have at least one value in either the Industry Title or Occupation Title.** All other fields are optional.

Field	Field Sequence	Format	Max Length	Comments
Unique Identifier	1	Alpha-Numeric	50	Required. Must be unique value per record. Example: 12345, or ID12345
Industry Title	2	Alpha-Numeric	250	At least one of these two fields must contain a value. Example: "Information Technology"
Occupation Title	3	Alpha-Numeric	250	
Employer Company Name	4	Alpha-Numeric	250	Optional. Example: "ABCD Motor Company"
Job duties	5	Alpha-Numeric	250	Optional. Enter text to describe job duties of the occupation. Used during the computer-assisted module to help coder decide on the most accurate occupation code. Example: "assembling nuts and bolts"
Employer City	6	Alpha-Numeric	50	Optional. Example: "Cincinnati"
Employer State	7	Alpha	2	Optional. Example: "OH"
Employer Zip	8	Alpha-Numeric	10	Optional.
Age	9	Alpha-Numeric	5	Optional. Examples: "25" or "25+" or ">25" or "30-35" or "senior"
Education level	10	Alpha-Numeric	25	Optional. Examples: "<12 years", "High School", "1-4 years college", "> 4 years college"
User defined field1	11	Alpha-Numeric	250	Free text field used for user defined purposes only.
User defined field2	12	Alpha-Numeric	250	Free text field used for user defined purposes only.

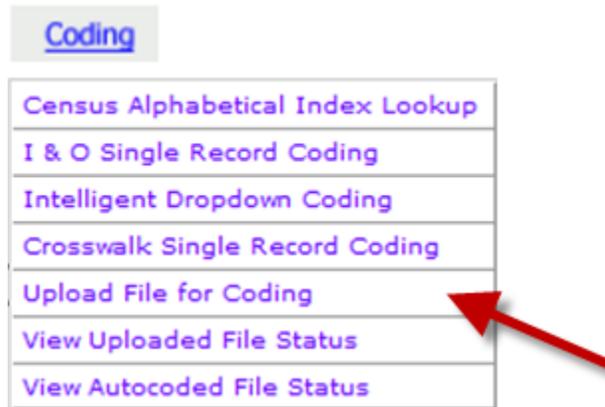
Example NIOCCS Expanded File Format:

ID	Industry Title	Occupation Title	Employer Name	Job Duties	Emp_City	Emp_State	Emp_Zip	Age	Education	UserDefined1	UserDefined2
10	Retail Sales	JC Penny Employee	JC Penny	Cashier	Topeka	KS	23566	56	High School	test 1	test2
20	Entertainment	Prof Santa Claus									
30	Swimming Pools	Water Tester / Cashier									
33	home	babysitter									
36	grain farm										
40	Bank	Cashier	PNC Bank	Count Money	Cincinnati	OH	45555				
50	Television	Camera operator	CBS								
60	Self-employed	Attorney									
70	City Government	Clerk					12345-6789				
80	Hospitl	Doctor	St. Gomma	Making people better							
90	Home	Homemaker								usd1	usd2
100	Retail Foods	Clerk									
110	Newspaper Publications	Newspaper Delivery							12		
120	Manufacturing	Tool & Dye			Pittsburgh	PA		26			
130	Fabric Manufacturing	Seamstress									
140	Own Home	Homemaker/mother									
150	Housekeeping	Homemaker				TX					
160	Piggly Wiggly	meat cutter					555555				
170	Remke Market	cashier									

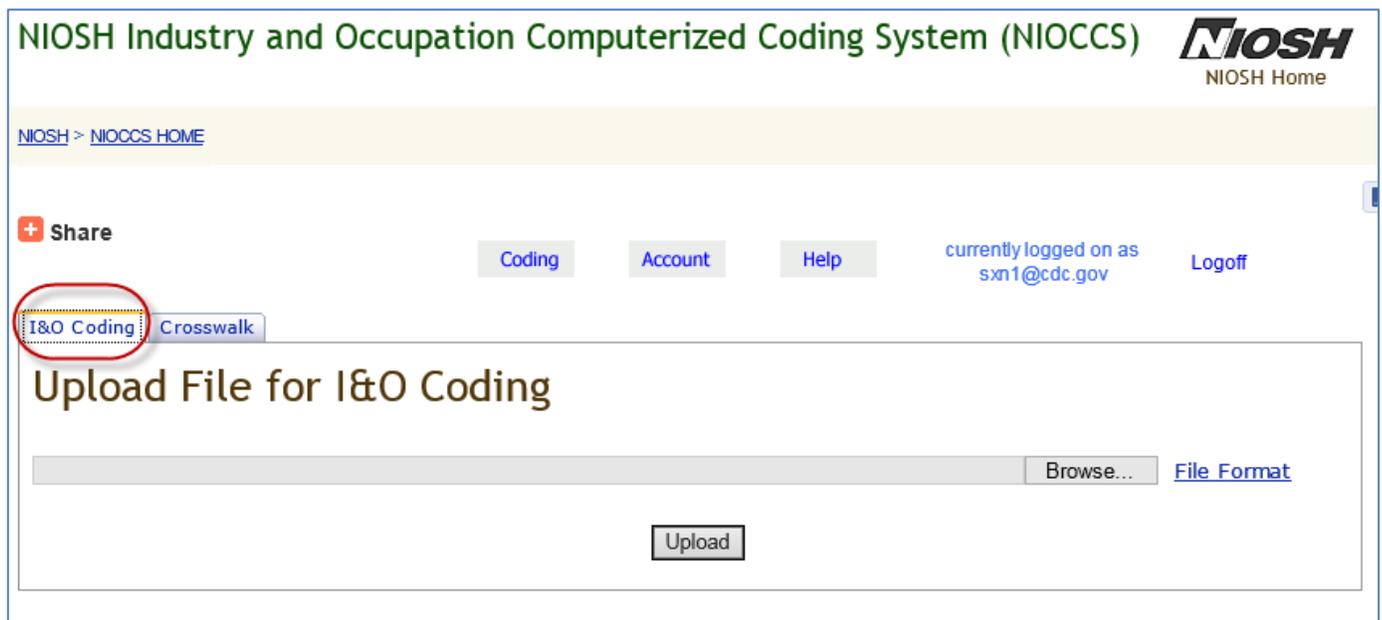
IMPORTANT NOTE: *Data values in the optional fields (Employer Name, Job Duties, Employer address info, age, education, user defined 1&2) can be submitted to NIOCCS however at this time (September 2014) these fields are not used by the autocoding engine. This information will be displayed in the NIOCCS computer-assisted screens and can be helpful for selecting the best I&O codes. NIOSH plans to incorporate the use of this information for improved autocoding in future releases of NIOCCS.*

6.3.2 Upload File for I&O Coding screen

To process a file of records for I&O coding, the user must hover on the **Coding** menu item then select **Upload File for Coding** from the drop-down list as shown below:



The **Upload File for I/O Coding** screen will appear as shown below. Ensure that the **I&O Coding** tab is selected.

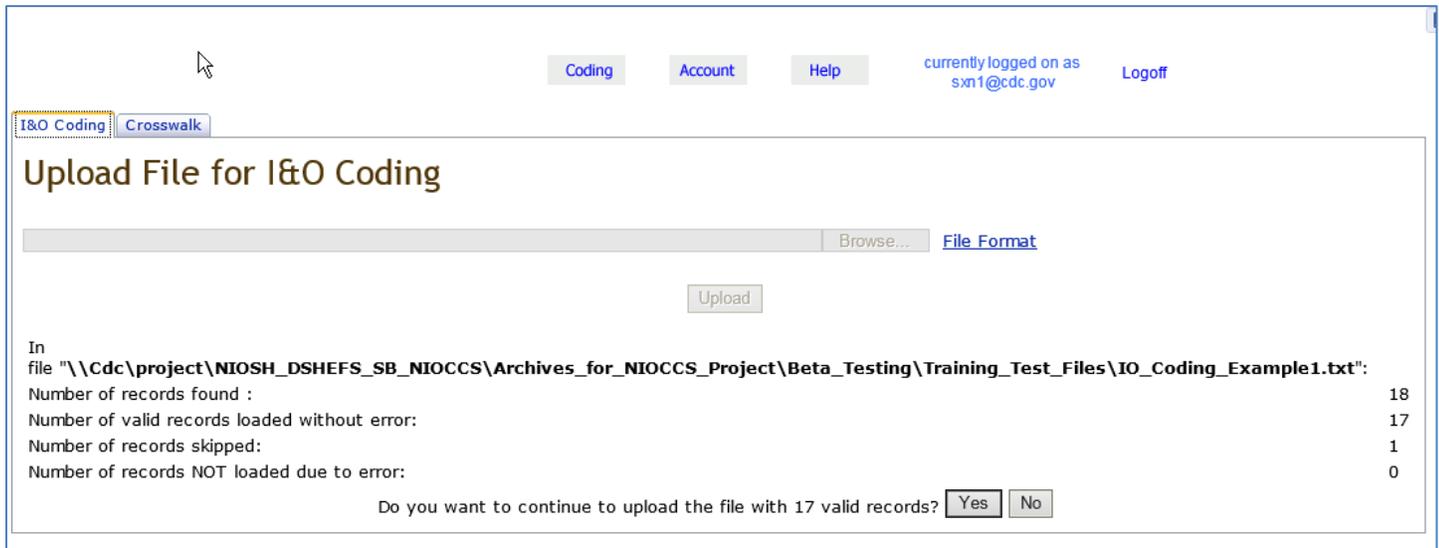


To review the input file format description for I&O Coding, click the **File Format** link.

To upload a file for I&O Coding:

Click the **Browse** button on the **Upload File for I/O Coding** screen. This will open a dialog box to choose the file to upload.

After selecting the file to be uploaded, click the **Upload** button to upload the file.



NIOCCS will check the uploaded file to ensure it is formatted correctly and provide the user with file validation information.

In the example above, "Number of records skipped:" indicates one row was skipped. This is because the file had a header row that labeled each column heading. This row will not be sent to the autocoder therefore is automatically skipped.

If no errors are found, click the **Yes** button to confirm and continue with the upload.

If errors are found that need to be fixed, click the **No** button to cancel the upload. An example file with errors is shown below.

The screenshot displays the NIOCCS web application interface. At the top, the title is "NIOSH Industry and Occupation Computerized Coding System (NIOCCS)" and the NIOSH logo is in the upper right corner. Below the title bar, there is a navigation menu with "Coding", "Account", and "Help" buttons. The user is logged in as "sxn1@cdc.gov" and can click "Logoff".

The main content area is titled "Upload File for I/O Coding". It features a file upload field with a "Browse..." button and a "File Format" link. Below the upload area, a summary of the upload results is shown for a file named "IO_Coding_Example_with_errors.txt":

In file "\\Cdc\project\NIOSH_DSHEFS_SB_NIOCCS\Beta_Testing\Training_Test_Files\IO_Coding_Example_with_errors.txt":	
Number of records found :	18
Number of valid records loaded without error:	0
Number of records skipped:	1
Number of records NOT loaded due to error:	17

A confirmation dialog asks, "Do you want to continue to upload the file with 0 valid records?" with "Yes" and "No" buttons.

A detailed error log is displayed in a dashed box, listing 17 lines that failed to load due to missing user-defined fields:

```
Line 2: not loaded because user defined field1 or its place holder was not found.
Line 3: not loaded because user defined field1 or its place holder was not found.
Line 4: not loaded because user defined field1 or its place holder was not found.
Line 5: not loaded because user defined field1 or its place holder was not found.
Line 6: not loaded because user defined field1 or its place holder was not found.
Line 7: not loaded because user defined field1 or its place holder was not found.
Line 8: not loaded because user defined field1 or its place holder was not found.
Line 9: not loaded because user defined field1 or its place holder was not found.
Line 10: not loaded because user defined field1 or its place holder was not found.
Line 11: not loaded because user defined field1 or its place holder was not found.
Line 12: not loaded because user defined field1 or its place holder was not found.
Line 13: not loaded because user defined field1 or its place holder was not found.
Line 14: not
```

A "More..." link is provided at the bottom of the error log.

6.3.3 Upload File Status screen

After uploading the file, the **Upload File Status** screen will appear as shown below. This screen will display all active files uploaded to NIOCCS by the user. If the user has uploaded more than one file then each file is displayed in a separate line.

Upload File Status screen options	
<input checked="" type="radio"/> Show All <input type="radio"/> Show I/O Files Only <input type="radio"/> Show Crosswalk Files Only	Filters the types of files displayed in the list (I&O Coding files, Crosswalk files, all files)
Records Per Page: 30	Controls the number of files displayed on the page.
Filter by: None	Allows the user to filter the files by those that are near expiration. <i>(See Chapter 9.1 File Retention and Removal for more information).</i>
<u>Select</u>	The <u>Select</u> link next to each file name allows the user to select a desired file to code or to remove.

6.4 Submitting a File for I&O Autocoding

From the **Uploaded File Status** screen, click the **Select** link next to the file to be autocoded. The selected file will be highlighted and coding options will be displayed on the right side of the screen.

NIOSH Industry and Occupation Computerized Coding System (NIOCCS)

NIOSH Home

NIOSH > NIOCCS HOME

Coding Account Help currently logged on as sxn1@cdc.gov Logoff

Uploaded File Status

Show All
 Show I/O Files Only
 Show Crosswalk Files Only
 Filter by:

Records Per Page: 30
 Click [Select](#) on a desired row to code or remove the file.

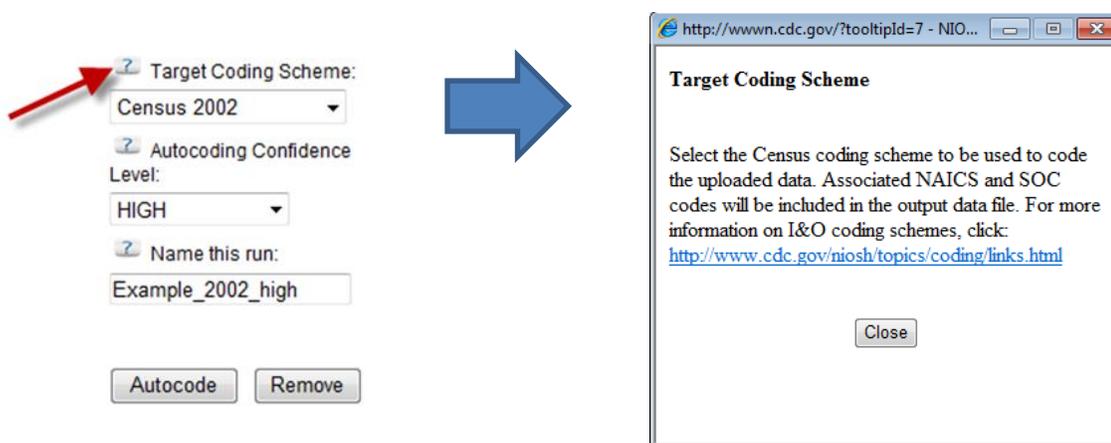
File	Loaded Date	Size (KB)	# Records	Status	Expiration Date
Select IO_Coding_Example1.txt	11/27/2012 3:54:19 PM	2	17	Uploaded	1/26/2013 3:54:19 PM
Select Example1_Input_File_Crosswalk.txt	10/16/2012 4:22:12 PM	1	22	Uploaded	12/31/2012 12:00:00 AM
Select Example2_L_O coding file.txt	10/12/2012 10:17:01 AM	3	50	Uploaded	12/31/2012 12:00:00 AM
Select Example1_Input_File_I&O.txt	10/12/2012 9:39:25 AM	1	13	Uploaded	12/31/2012 12:00:00 AM

Target Coding Scheme:
 Autocoding Confidence Level:
 Name this run:

Upload File Status screen Options for I&O Coding Files	
Target Coding Scheme:	Select the Census Coding Classification Scheme to be used to code the I&O text.
Autocoding Confidence Level:	Select the confidence level setting NIOCCS will use to determine the records to be <u>automatically</u> coded. Records that meet the confidence level setting selected will be automatically coded. <p style="text-align: center;">High = > 90%</p> <p style="text-align: center;">Medium = > 70%</p> <p><i>(See Chapter 5 for more information about the NIOCCS Autocoding confidence levels).</i></p>
Name this Run:	Provide a name for the autocoding submission (Run). This option can be used to identify various submissions of the same file using different

Upload File Status screen Options for I&O Coding Files	
	autocoding options.
Autocode	Click this button to submit the file to be autocoded by NIOCCS.
Remove	Click this button to remove (delete) the file from the list of uploaded files.

The user can click on the question marks next to the autocoding options to obtain more information about the options. A pop-up box will appear with a description of the option as shown below.



After selecting autocoding options, click the **Autocode** button to submit the file for coding. The **Autocode File Status** screen will appear as shown below.

NIOSH Industry and Occupation Computerized Coding System (NIOCCS) **NIOSH**
NIOSH Home

NIOSH > NIOCCS HOME

Coding Account Help currently logged on as sxn1@cdc.gov Logoff

Autocoded File Status

Show All
 Show I/O Files Only
 Show Crosswalk Files Only
 Filter by: None

« < 1 > » Records Per Page: 30
 Refresh List
 Check Autocoding Progress
 Click Select on a desired row to review and manage the file.

Run Name	File Name	Census Coding Scheme	Confidence Level	Total # Records	# Ind Coded	# Occ Coded	Expiration Date	Status
Select Example_2002_high	IO_Coding_Example1.txt	2002	HIGH	17	0	0	2/2/2013 12:00:00 AM	Autocode Running

« < 1 > »

6.5 Autocode File Status screen

The **Autocode File Status** screen displays all file submissions by the user to NIOCCS for coding (I&O coding or Crosswalk coding).

NIOSH Industry and Occupation Computerized Coding System (NIOCCS)

NIOSH Home

NIOSH > NIOCCS HOME

Coding Account Help currently logged on as sxn1@cdc.gov Logoff

Autocoded File Status

Show All
 Show I/O Files Only
 Show Crosswalk Files Only
 Filter by: None

« < 1 > » Records Per Page: 30
 Refresh List
 Check Autocoding Progress
 Click Select on a desired row to review and manage the file.

Run Name	File Name	Census Coding Scheme	Confidence Level	Total # Records	# Ind Coded	# Occ Coded	Expiration Date	Status
Select Example1_2002_high	IO_Coding_Example1.txt	2002	HIGH	17	0	0	2/3/2013 12:00:00 AM	Autocode Pending: 4th in queue
Select EHR_CHA_2002_High	EHR_CHA data_Occ_only_NIOCCS_ready1_test.txt	2002	HIGH	4992	0	0	2/3/2013 12:00:00 AM	Autocode Pending: 3rd in queue
Select MO_2002_High	MO_2011_IND_OCC_NIOCCS_ready.txt	2002	HIGH	1232	0	0	2/3/2013 12:00:00 AM	Autocode Pending: 2nd in queue

NIOCCS can only process one file at a time for autocoding. This means that a file submitted may be put in a queue depending on the number of users who have also submitted jobs. In the example above, the user has submitted 3 jobs and each is waiting in the queue until the job currently being run by another user ends.

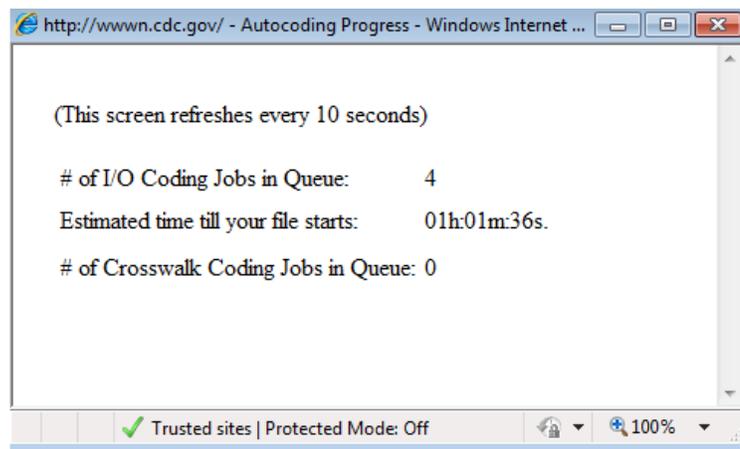
The **Status** column on the list of autocoded files will display one of the following:

Status	Status Descriptions
Autocode Running	Job is currently being processed by NIOCCS
Autocode Pending: n th in queue	Job is n th in the queue to be processed by NIOCCS
Autocode Done	Job has completed processing by NIOCCS and is ready for review

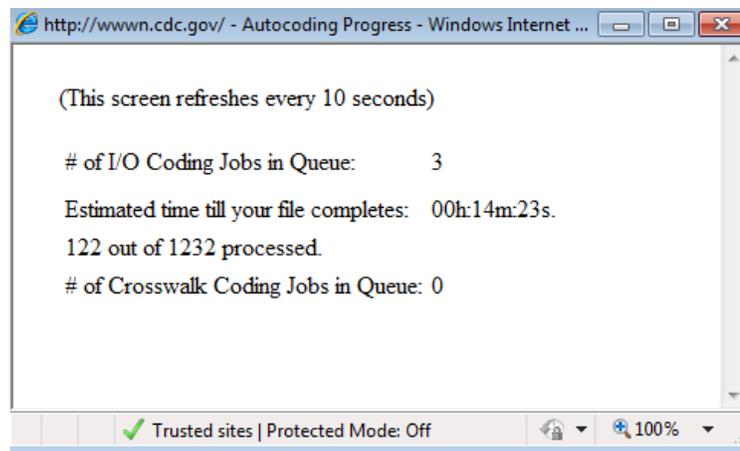
Users can monitor the status of a job submitted in two ways.

- 1) By checking the **Status** column for the run and periodically clicking the **Refresh List** button to get an update on the status.
- 2) By clicking the **Check Autocoding Progress** button to view more detailed information about a job. **NOTE:** *This link is also available from the logged on NIOCCS home page.*
 - a. A pop-up window will be displayed showing the number of jobs in the queue and an approximate time for a job to start and/or complete.
 - b. This window will refresh automatically every 10 seconds.

The example below shows that there are 4 jobs in the queue to be autocoded and that it will take approximately 1 hour until the user's job will start.



In the following example, there are 3 jobs in the queue to be autocoded and the user's job is currently running with approximately 14 minutes to complete.



A job submitted for coding can be cancelled if the **Status** equals “Autocode Running” or “Autocode Pending”. To cancel a job, click the **Select** link next to the **Run Name** to be canceled. The selected job will be highlighted and options will be displayed on the right side of the screen.

Click the **Cancel Autocode** button to cancel the job.

Autocoded File Status

● Show All ● Show I/O Files Only ● Show Crosswalk Files Only Filter by: None

« < > » Records Per Page: 30 Refresh List Check Autocoding Progress Click **Select** on a desired row to review and manage the file.

Run Name	File Name	Census Coding Scheme	Confidence Level	Total # Records	# Ind Coded	# Occ Coded	Expiration Date	Status
Select Example1_2002_high	IO_Coding_Example1.txt	2002	HIGH	17	0	0	2/11/2013 12:00:00 AM	Autocode Pending: 2nd in queue
Select Example2_Crosswalk_1990-2000	crosswalk_Example2_1990_2000.txt	2000	N/A	42	33	32	2/8/2013 12:00:00 AM	Autocode Done
Select Example2_crosswalk_1990-2000	crosswalk_Example2_1990_2000.txt	2000	N/A	42	42	42	2/8/2013 12:00:00 AM	Autocode Done

Review / Edit Records
All Comp-Assisted Submit
Manage File
Download Remove Cancel Autocode

A message box will appear as shown below.

Message from webpage

The autocode for the selected run will be cancelled. After cancellation, the run is removed and can only be found in "View Historical Files" page, but you can schedule another run from the original uploaded file.

OK Cancel

To confirm cancellation of the job, click the **OK** button. The job will be cancelled and removed from the **Autocode File Status** screen

If the user does not want to cancel the job, click the **Cancel** button on the message box.

As noted in the message box, the canceled job will be listed in the user’s file history. See *Chapter 9.2 for more information about File History*.

6.6 Computer-assisted I&O Coding

After a file has completed the autocoding process, it is likely that some records will not have been autocoded and will need a human to decide the most appropriate I&O codes. Records not autocoded will be flagged as needing 'Computer-assisted Coding'.

IMPORTANT NOTE: NIOSH strongly recommends that users be trained in I&O coding prior to using this feature of the NIOCCS system. NIOSH provides I&O coding training several times a year and requests for training can be made on NIOSH's I&O Coding website at: <http://www.cdc.gov/niosh/topics/coding/training.html>

(See Chapter 1.2 – NIOSH Training Recommendations for more information).

6.6.1 Selecting Records to Review/Edit

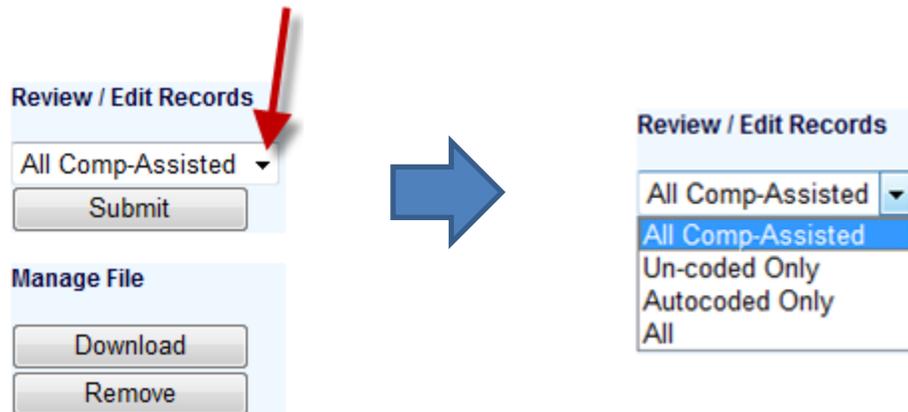
Records that did not have both the industry and occupation automatically coded are displayed one at a time in the NIOCCS Computer-assisted I&O Coding screen so that the user can review and choose the best I&O codes. This process is called computer-assisted coding because NIOCCS provides information and functions to support the coder in determining the correct I&O codes for a given record.

Once the **Status** column displays '**Autocode Done**' on the **Autocode File Status** screen, the file is ready to be reviewed and edited. Columns on the screen in the table indicate the number of records where the industry and occupation text were automatically coded. A record may have only the industry or only the occupation coded automatically so these totals may not be equal.

NIOCCS provides several options for reviewing and editing the results of the autocoding process. To view these options, click the **Select** link next to the file to be reviewed/edited from the **Autocoded File Status** screen as shown in the example below.

Run Name	File Name	Census Coding Scheme	Confidence Level	Total # Records	# Ind	# Occ	Expiration Date	Status
Select Example_2002_high	IO_Coding_Example1.txt	2002	HIGH	17	8	13	2/2/2013 12:00:00 AM	Autocode Done
Select test 2000	Sue NIOCCS_TestBatchFile.txt	2000	HIGH	21	7	12	2/2/2013 12:00:00 AM	Autocode Done
Select test	I_O coding file beta train.txt	2002	HIGH	49	33	41	2/2/2013 12:00:00 AM	Autocode Done

The selected file will be highlighted and user options will be displayed on the right side of the screen. Click the **Review/Edit** drop down arrow to view options for filtering records for review/edit.



I&O Computer-assisted Review/Edit options	
All Comp-Assisted	<p>Displays records that did not have both industry and occupation <i>autocoded</i> by NIOCCS; that is, records that were flagged as needing computer-assisted coding.</p> <p>This option will display records that were flagged for computer-assisted coding regardless if I&O codes have been assigned already by the user in previous computer-assisted sessions.</p>
Un-coded Only	<p>Displays records that have not been assigned I&O codes yet.</p> <p>Initially, this group of records will equal the All Comp-Assisted group.</p> <p>This option is used when the user is working on a file that may take more than one NIOCCS session to complete the computer-assisted coding. If a user has assigned some codes in previous NIOCCS Computer-assisted sessions and starts a new session to work on the remaining records, this option allows the user to focus on only records that still do not have codes assigned.</p>
Autocoded Only	<p>Displays records that were autocoded by NIOCCS.</p>
All	<p>Displays all records in the file whether autocoded, computer-assisted coded, or not yet coded.</p>

6.6.2 Computer-assisted I&O Coding screen

This screen displays records one at a time allowing the user to search and select the correct industry and occupation codes.

The Computer-assisted I&O Coding screen consists of 5 primary sections:

1. File Information and Navigation
2. Industry and Occupation Input Text to be coded
3. Matched Candidates for Industry and Occupation
4. CDC/Census Industry and Occupation Alphabetical Indexes
5. Industry and Occupation Codes Selected / Accepted

NIOSH Industry and Occupation Computerized Coding System (NIOCCS)

[NIOSH > NIOCCS HOME](#)

Coding Account Help
currently logged on as [sxn1@cdc.gov](#) [Logoff](#)

Assisted I/O Coding

#2

Industry Title:

Occupation Title:

Employer:

Job Duties:

[Show Other I&O Info](#) Autocoding Confidence Level: HIGH

8 Ind Matches

Confidence Level	Ind Code	Ind Matched
Select MEDIUM	1480	FABRIC \ ANY NOT LISTED (MFG.)
Select LOW	1670	FABRIC,KNIT (MFG.)
Select LOW	5280	FABRIC STORE (RET.)
Select LOW	1490	SIZING FABRICS (MFG.)

2 Occ Matches

Confidence Level	Occ Code	Occ Matched
Select HIGH	8350	SEAMSTRESS
Select HIGH	8320	SEAMSTRESS

#1

Close File

Autocode CL: HIGH

Scheme: **CENSUS 2002**

File: Example_2002_high

Record Id: 111

Review / Edit Records

All Comp-Assisted

Submit

<-Prev Next->

First Last

View All

Record 6 of 10

#4

Industry Index Find:

Title	Ind Code	NAICS	Occ Code
Select EYEGLASSES (MFG.)	3960	339115	
Select EYEGLASSES (RET.)	5080	446130	
Select EYELASH CURLERS (MFG.)	3980	339900	
Select EYELET MAKING FOR THE TRADE (MFG.)	1590	314129	
Select EYELETS, CLOTH AND PAPER (MFG.)	1890	322220	
Select EYELETS, METAL (MFG.)	3980	339993	
Select F.E.M.A (FEDERAL EMERGENCY MANAGEMENT AGENCY)	9470	922190	
Select FABRIC \ ANY NOT LISTED (MFG.)	1480	313210	
Select FABRIC AND SEWING MACHINES (RET.)	4780	443111	
Select FABRIC BELTS, APPAREL (MFG.)	1690	315999	

#5

Occupation Index Find:

Title	Occ Code	Ind Restriction	SOC
Select SEAMER OPERATOR	8340	1770	51-6042
Select SEAMER OPERATOR	8960	EXC. 1770	51-9199
Select SEAMLESS TUBE DRAWER	7920		51-4021
Select SEAMLESS TUBE ROLLER	7940		2370, 2670-3690, 6080, 8870
Select SEAMLESS TUBE ROLLER	7940		51-4023
Select SEAMSTRESS	8350	\ ANY NOT LISTED	51-6052
Select SEAMSTRESS	8350	\ ANY NOT LISTED	1070-3990, 6080,

Ind Code:

Accept Reset

Insufficient Info

Occ Code:

8350

Accept Reset

Insufficient Info

Add Notes Refresh Notes

NIOCCS User Manual

Page 6-59

6.6.2.1 Section #1. File Information and Navigation

This section of the **I&O Computer-assisted coding** screen provides navigation tools and information about the file being coded.

Close File

Autocode CL: HIGH

Scheme: **#1**
CENSUS 2002

File:
Example_2002_high

Record Id:
111

Review / Edit Records

All Comp-Assisted

Submit

<Prev Next->

First Last

View All

Record 6 of 10

Close File button will return the user to the Autocoded File Status screen.

The **Autocode CL, Scheme, File, Record ID** fields provide information about the file being coded and the autocoding options chosen.

The **Review/Edit** drop down is provided again so that the user can refilter the records directly from the computer-assisted screen.

The **Prev, Next, First, Last** buttons provide navigation tools to go to the previous, next, first, or last record in the file being reviewed.

View All button allows the user to view the records in the file in a table format rather than one record at a time (see Chapter 6.5.3 and Chapter 8. for more information on View All).

Record x of x lets the user know which record they are currently viewing among all the records in the filtered set of records.

6.6.2.2 Section #2. Industry and Occupation Input Text to be coded

This section is to display the industry and occupation input text to be coded. This section can also be used to retile an industry or occupation by typing a new title into the industry or occupation title box. NIOCCS will search again for matched candidates using the retitled text.

Industry Title: FABRIC MANUFACTURING

Occupation Title: SEAMSTRESS

Employer: Enter Employer Here

Job Duties: Enter Job Duties Here

Show Other I&O Info

Autocoding Confidence Level: HIGH

Search Again Reset Titles

#2

The industry and occupation input text to code will appear in the **Industry Title** and **Occupation Title** boxes. If data was submitted for **Employer** or **Job Duties**, this information will be displayed in the associated boxes.

NOTE: Currently (September 2014), the **employer** and **job duties** fields are only used to support computer-assisted coding; they are not used in the autocoding process.

Computer-assisted I&O Coding – Section #2 options	
<p>Show Other I&O Info</p> <p>Hide Other I&O Info</p> <p>Empl. City: <input type="text"/> Empl. State: <input type="text"/> Empl. Zip: <input type="text"/> Age: <input type="text"/> Education: <input type="text"/></p> <p>User Defined Field #1: <input type="text"/> User Defined Field #2: <input type="text"/></p>	<p>Displays additional supporting information for the record if provided on the input file.</p> <p>To hide these fields again on the screen, click the Hide Other I&O Info link.</p>
<p>Autocoding Confidence Level</p> <p> Autocoding Confidence Level: <input type="text" value="HIGH"/></p>	<p>The Autocoding Confidence Level drop down box can be used in conjunction with the Search Again button to change a confidence level setting when asking NIOCCS to search for new candidate matches for the industry or occupation titles on the record being viewed. See <i>Section #3 example below</i>.</p> <p><i>(See Chapter 5 for more information on the Autocoding Confidence Level).</i></p>
<p>Search Again</p> <p style="text-align: center;"><input type="button" value="Search Again"/></p>	<p>Used to retitle the industry or occupation text in order to search for new matched candidates.</p> <p>By typing different text in the industry title or occupation title boxes then clicking the Search Again button, NIOCCS will search for new matches using the new text. See <i>Section #3 example below</i>.</p>
<p>Reset Title</p> <p style="text-align: center;"><input type="button" value="Reset Titles"/></p>	<p>If the industry or occupation text was modified in order to use the Search Again feature, the original industry and occupation text can be redisplayed by clicking the Reset Title button. See <i>Section #3 example below</i>.</p>

6.6.2.3 Section #3. Matched Candidates for Industry and Occupation

This section of the **Computer-assisted I&O Coding** screen displays the industry and occupation titles and codes that NIOCCS found as the best matches to the input industry and occupation text.

In the example below, NIOCCS found 8 candidate codes for industry and 2 candidate codes for occupation based on the input text:

Industry Title: FABRIC MANUFACTURING
Occupation Title: SEAMSTRESS

8 Ind Matches			2 Occ Matches			#3
Confidence Level	Ind Code	Ind Matched	Confidence Level	Occ Code	Occ Matched	
Select MEDIUM	1480	FABRIC \ ANY NOT LISTED (MFG.)	Select HIGH	8350	SEAMSTRESS	
Select LOW	1670	FABRIC,KNIT (MFG.)	Select HIGH	8320	SEAMSTRESS	
Select LOW	5280	FABRIC STORE (RET.)				
Select LOW	1490	SIZING FABRICS (MFG.)				

IMPORTANT NOTE: *The list of matched candidates found by NIOCCS is not always all inclusive, other descriptions with similar words can sometimes be found in the Census Alphabetical Indexes (see section 6.6.2.4 for more information).*

In cases where NIOCCS does not find many or any matched candidates, the user can change the **Autocoding Confidence Level** for the record being reviewed and click **Search Again** to ask NIOCCS to find candidates with lower confidence. In the example below, NIOCCS did not find any matches for industry or occupation for the input text with a HIGH CL setting.

Assisted I/O Coding

Industry Title:

Occupation Title:

Employer:

Job Duties:

[Show Other I&O Info](#) Autocoding Confidence Level: HIGH

0 Ind Matches

0 Occ Matches

If the user changes the **Autocoding Confidence Level** to MEDIUM and clicks the **Search Again** button, NIOCCS will process the input text again at a Medium confidence level. In this example, NIOCCS found 1 industry candidate but still no occupation candidates at the MEDIUM CL for this record.

Assisted I/O Coding

Industry Title:

Occupation Title:

Employer:

Job Duties:

[Show Other I&O Info](#) Autocoding Confidence Level:

1 Ind Matches

Confidence Level	Ind Code	Ind Matched
Select MEDIUM	6990	INSURANCE \ N.S. OR ANY OTHER SPECIFIED TYPE

0 Occ Matches

To improve results for matched candidates, the user can enter different text in either the **Industry Title** or **Occupation Title** fields then click **Search Again**. In the example below, the user re-entered text in the occupation field, spelling out the abbreviation of 'ACCT EXEC' to 'ACCOUNT EXECUTIVE' and obtained more candidates for occupation.

Assisted I/O Coding

Industry Title:

Occupation Title:

Employer:

Job Duties:

[Show Other I&O Info](#) Autocoding Confidence Level:

1 Ind Matches

Confidence Level	Ind Code	Ind Matched
Select MEDIUM	6990	INSURANCE \ N.S. OR ANY OTHER SPECIFIED TYPE

10 Occ Matches

Confidence Level	Occ Code	Occ Matched
Select HIGH	4810	ACCOUNT EXECUTIVE
Select HIGH	4850	ACCOUNT EXECUTIVE
Select MEDIUM	0420	SCOUT EXECUTIVE
Select LOW	0430	ASSOCIATION EXECUTIVE

Users may need to retitle the industry or occupation in order to locate the most accurate code for the input text even though NIOCCS may have found matched candidates.

NOTE: *Retitling or reclassifying industry or occupation text is a concept taught in the NIOSH I&O Coding training courses. It is important to remember that although NIOCCS may find what appears to be correct matches for the input text, a trained I&O coder will know whether the match is actually correct.*

In the example below, NIOCCS has found a matched candidate at the HIGH CL for the industry 'RETAIL SALES' however, a trained I&O coder would know to use the occupation title and employer information to retitle the industry to 'DEPARTMENT STORE' in order to obtain the appropriate industry code for this record.

Additionally, the occupation text could be retitled to 'CASHIER' since it is supplied in the job duties field on this record.

Assisted I/O Coding

Industry Title:

Occupation Title:

Employer:

Job Duties:

[Show Other I&O Info](#) Autocoding Confidence Level:

2 Ind Matches

	Confidence Level	Ind Code	Ind Matched
Select	HIGH	5790	RETAIL STORE \ TYPE NOT SPECIFIED
Select	MEDIUM	4980	NUTS, PROCESSING AND RETAIL SALE

4 Occ Matches

	Confidence Level	Occ Code	Occ Matched
Select	MEDIUM	8960	EMPLOYEE
Select	LOW	5860	OFFICE EMPLOYEE
Select	LOW	0620	EMPLOYEE PLACEMENT SPECIALIST
Select	LOW	0130	EMPLOYEE WELLNESS/FITNESS COORDINATOR

The results of retitling the industry and occupation and searching again are shown below.

Assisted I/O Coding

Industry Title: 

Occupation Title:

Employer:

Job Duties:

[Show Other I&O Info](#) Autocoding Confidence Level: HIGH ▾

1 Ind Matches

	Confidence Level	Ind Code	Ind Matched
Select	HIGH	5380	DEPARTMENT STORES AND DISCOUNT STORES

1 Occ Matches

	Confidence Level	Occ Code	Occ Matched
Select	HIGH	4720	CASHIER

The original input text is not lost by entering other text in the industry and occupation title fields. It is always stored in the database as originally uploaded.

Users can return to the original input text by clicking the **Reset Titles** button. The original text will also be redisplayed if the user moves to another record in the file then returns to record retitled.

6.6.2.4 Section #4. CDC/Census Industry and Occupation Alphabetical Indexes

This section of the Computer-assisted I&O Coding screen provides access to the CDC/Census Industry and Occupation Alphabetical indexes.

For detailed instructions on using this feature see chapter 6.1 The CDC/ Census Alphabetical Index Lookup).

Industry Index Find: Go **#4**

Title	Ind Code	NAICS	Occ Code
Select EYEGLASSES (MFG.)	3960	339115	
Select EYEGLASSES (RET.)	5080	446130	
Select EYELASH CURLERS (MFG.)	3980	339900	
Select EYELET MAKING FOR THE TRADE (MFG.)	1590	314129	
Select EYELETS, CLOTH AND PAPER (MFG.)	1890	322220	
Select EYELETS, METAL (MFG.)	3980	339993	
Select F.E.M.A (FEDERAL EMERGENCY MANAGEMENT AGENCY)	9470	922190	
Select FABRIC \ ANY NOT LISTED (MFG.)	1480	313210	
Select FABRIC AND SEWING MACHINES (RET.)	4780	443111	
Select FABRIC BELTS, APPAREL (MFG.)	1690	315999	

Occupation Index Find: Go

Title	Occ Code	Ind Restriction	SOC
Select SEAMER OPERATOR	8340	1770	51-6042
Select SEAMER OPERATOR	8960	EXC. 1770	51-9199
Select SEAMLESS TUBE DRAWER	7920		51-4021
Select SEAMLESS TUBE ROLLER	7940	2370, 2670-3690, 6080, 8870	51-4023
Select SEAMSTRESS	8350	\ ANY NOT LISTED	51-6052
		1070-3990, 6080,	

NOTE: The use of the CDC/Census Industry and Occupation Alphabetical Indexes is taught in the NIOSH I&O coding training course. For more information on training, visit the NIOSH I&O Coding website at: <http://www.cdc.gov/niosh/topics/coding/>

The CDC/Census Industry and Occupation Alphabetical Indexes can be used to locate I&O codes when the matched candidates found by NIOCCS are not appropriate or to obtain more information about I&O codes such as detailed descriptions of the associated NAICS or SOC codes.

By default, the NIOCCS Computer-assisted I&O Coding screen will display the 'page' of the CDC/Census index at the location where the input text matches alphabetically within the index. For example, if the industry input text is 'Fabric Manufacturing', the first item in the industry CDC/Census index that begins with '**Fabric**' will be highlighted in bold text in the Industry Index box as shown in the example above.

Industry Code Details

Each of the Census industry codes has an associated North American Industry Classification System (NAICS) code except for unpaid worker codes (see the *Unpaid Worker Codes* section of this chapter below). NAICS codes are listed for each Census industry title in the column labeled **NAICS** in the **Industry Index** section of the screen.

Users can obtain the detailed description of the NAICS code, and thereby have a better understanding of the associated Census code, by clicking on the NAICS code of interest as shown in the example below.

NOTE: For more information about NAICS, visit the NAICS website at: <http://www.census.gov/eos/www/naics/>

Industry Index Find:

	Title	Ind Code	NAICS	Occ Code
Select	EYEGASSES (MFG.)	3960	339115	
Select	EYEGASSES (RET.)	5080	446130	
Select	EYELASH CURLERS (MFG.)	3980	339900	
Select	EYELET MAKING FOR THE TRADE (MFG.)	1590	314129	
Select	EYELETS, CLOTH AND PAPER (MFG.)	1890	322220	
Select	EYELETS, METAL (MFG.)	3980	339993	
Select	F.E.M.A (FEDERAL EMERGENCY MANAGEMENT AGENCY)	9470	922190	
Select	FABRIC \ ANY NOT LISTED (MFG.)	1480	313210	
Select	FABRIC AND SEWING MACHINES (RET.)	4780	443111	
Select	FABRIC BELTS, APPAREL (MFG.)	1690	315999	



A new window will appear containing the **NAICS description** for the code selected. The NAICS descriptions are taken directly from the NAICS dictionary.

313210 Broadwoven Fabric Mills

This industry comprises establishments primarily engaged in weaving broadwoven fabrics and felts (except tire fabrics and rugs). Establishments in this industry may weave only, weave and finish, or weave, finish, and further fabricate fabric products.

Cross-References. Establishments primarily engaged in

- Weaving widths specifically constructed for cutting to narrow widths are classified in U.S. Industry [313221](#), Narrow Fabric Mills;
- Weaving or tufting carpet and rugs are classified in Industry [314110](#), Carpet and Rug Mills; and
- Making tire cord and tire fabrics are classified in U.S. Industry [314992](#), Tire Cord and Tire Fabric Mills.

31322 Narrow Fabric Mills and Schiffli Machine Embroidery

This industry comprises establishments primarily engaged in one or more of the following: (1) weaving or braiding narrow fabrics; (2) manufacturing Schiffli machine embroideries; and (3) making fabric-covered elastic yarn and thread.

313221 Narrow Fabric Mills^{US}

This U.S. industry comprises establishments primarily engaged in (1) weaving or braiding narrow fabrics in their final form or initially made in wider widths

US United States industry only. CAN United States and Canadian industries are comparable. MEX United States and Mexican industries are comparable. Blank Canadian, Mexican, and United States industries are comparable.

Users can also click on the Census industry code link in the **Industry Index** to view all Census industry titles that are classified to that same code. Viewing these titles may help the user better understand the types of industries that are coded to this Census industry category.

Industry Index Find:

	Title	Ind Code	NAICS	Occ Code
Select	EYEGLASSES (MFG.)	3960	339115	
Select	EYEGLASSES (RET.)	5080	446130	
Select	EYELASH CURLERS (MFG.)	3980	339900	
Select	EYELET MAKING FOR THE TRADE (MFG.)	1590	314129	
Select	EYELETS, CLOTH AND PAPER (MFG.)	1890	322220	
Select	EYELETS, METAL (MFG.)	3980	339993	
Select	F.E.M.A (FEDERAL EMERGENCY MANAGEMENT AGENCY)	9470	922190	
Select	FABRIC \ ANY NOT LISTED (MFG.)	1480	313210	
Select	FABRIC AND SEWING MACHINES (RET.)	4780	443111	
Select	FABRIC BELTS, APPAREL (MFG.)	1690	315999	

« < ... [673](#) [674](#) [675](#) [676](#) ... > »



A new window will appear containing all the Census industry titles that are found for that industry code. Notice that the NAICS codes are also listed and that some industry titles having the same Census code may have different NAICS codes. The NAICS codes can be clicked again to view the NAICS descriptions as demonstrated previously.

Category: Fabric mills, except knitting			
Ind Code	Title	NAICS	Occ Code
1480	ACETATE BROAD WOVEN FABRIC (MFG.)	313210	
1480	ACRILAN FABRICS (MFG.)	313210	
1480	ACRYLIC BROAD WOVEN FABRIC (MFG.)	313210	
1480	AIRPLANE CLOTH, COTTON (MFG.)	313210	
1480	ALPACA (MFG.)	313210	
1480	APPAREL WEBBING (MFG.)	313221	
1480	AUTO FABRICS (MFG.)	313210	
1480	AUTO UPHOLSTERY TAPE (MFG.)	313230	
1480	AUTOMOTIVE FELTS (MFG.)	313210	
1480	BAGGING, COTTON (MFG.)	313221	
1480	BALE DYEING, WOOL, EXC. KNIT (MFG.)	313210	
1480	BALLOON CLOTH, COTTON (MFG.)	313210	
1480	BANDING SPINDLE (MFG.)	313221	
1480	BARK CLOTH, COTTON (MFG.)	313210	
1480	BASKET WEAVE FABRICS, COTTON (MFG.)	313221	
1480	BATISTE, COTTON (MFG.)	313210	
1480	BED TICKINGS (MFG.)	313210	
1480	BEDSPREADS, COTTON, WOVEN (MFG.)	313221	
1480	BELTINGS, MADE IN TEXTILE MILL (MFG.)	313230	
1480	BILLIARD CLOTHS (MFG.)	313210	
1480	BINDINGS, MADE IN TEXTILE MILL (MFG.)	313221	
1480	BIRD'S-EYE DIAPER CLOTH (MFG.)	313210	
1480	BLANKETS, WOVEN (MFG.)	313230	
1480	BOOK CLOTH (MFG.)	313210	
1480	BRAIDS, MADE IN TEXTILE MILL (MFG.)	313230	

(partial listing for industry code 1480)

Occupation Code Details

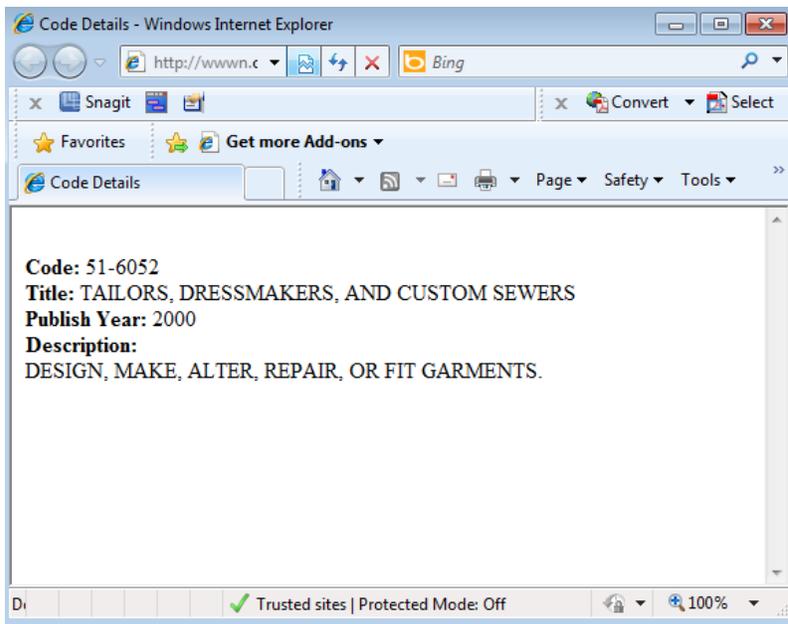
Each of the Census occupation codes has an associated Standard Occupation Code (SOC) except for unpaid worker codes (see the *Unpaid Worker Codes* section of this chapter below). SOC codes are listed for each Census occupation title in the column labeled **SOC** in the **Occupation Index** section of the screen.

Users can obtain the detailed description of the SOC code, and thereby have a better understanding of the associated Census occupation code, by clicking on the SOC code of interest as shown in the example below.

Occupation Index Find:

	Title	Occ Code	Ind Restriction	SOC
Select	SEAMER OPERATOR	8340	1770	51-6042
Select	SEAMER OPERATOR	8960	EXC. 1770	51-9199
Select	SEAMLESS TUBE DRAWER	7920		51-4021
Select	SEAMLESS TUBE ROLLER	7940	2370, 2670- 3690, 6080, 8870	51-4023
Select	SEAMSTRESS	8350	\ ANY NOT LISTED	51-6052
			1070- 3990, 6080,	

A new window will appear containing the SOC description for the code selected.



NOTE: For more information about SOC, visit the SOC website at: <http://bls.gov/soc/>

Users can also click on the Census occupation code in the **Occupation Index** to view all Census occupation titles that are classified to that same code. Viewing these titles may help the user better understand the types of occupations coded to this Census occupation category.

Occupation Index Find:

Title	Occ Code	Ind Restriction	SOC
Select SEAMER OPERATOR	8340	1770	51-6042
Select SEAMER OPERATOR	8960	EXC. 1770	51-9199
Select SEAMLESS TUBE DRAWER	7920		51-4021
Select SEAMLESS TUBE ROLLER	7940	2370, 2670- 3690, 6080, 8870	51-4023
Select SEAMSTRESS	8350	\ ANY NOT LISTED	51-6052
		1070- 3990, 6080,	

A new window will appear containing all the Census occupation titles that are found for that occupation code. Notice that the SOC codes are also listed and that some occupation titles having the same Census code may have different SOC codes. The SOC codes can be clicked again to view the SOC descriptions as demonstrated previously.

Category: Tailors, Dressmakers, and Sewers

Occ Code	Title	Ind Restriction	Naics Restriction	SOC
8350	ALTERATION HAND \ N.S.	8880, 9070	8123, 8144	51-6052
8350	ALTERATION HAND, SEAMSTRESS			51-6052
8350	ALTERATION HAND, TAILOR			51-6052
8350	ALTERATION TAILOR			51-6052
8350	ALTERATIONS			51-6052
8350	APPLIQUER	EXC. 1070- 3990	EXC. 31-33	51-6052
8350	APPRENTICE, SHOP TAILOR			51-6052
8350	APPRENTICE, TAILOR			51-6052
8350	BASEBALL SEWER, HAND			51-6051
8350	BUSHELER, CLOTHING			51-6052
8350	CANVAS MAKER			51-6052
8350	CLOTH CUTTER	1680, 5170	3152, 448	51-6052
8350	CLOTHING CUTTER	(1680)	(3152)	51-6052
8350	COAT BASTER			51-6052
8350	COAT BUSHELER			51-6052
8350	COAT CUTTER	(1680)	(3152)	51-6052
8350	COAT MAKER			51-6052
8350	COAT TAILOR			51-6052

Unpaid Worker Codes

An unpaid worker response would be someone who is not in the workforce and does not have an occupation for pay. This may be due to the fact that they are unable to work or are too young to be in the workforce. The categories in the table below each have a unique industry and occupation code. *These codes were created by CDC/NIOSH and were added to the Census Alphabetical Indexes.*

Non Paid Worker Titles	Ind code*	Occ code*
Homemaker, housewife	9890	9010
Volunteer	9890	9020
Student	9890	9050
Retired	9880	9060
Did not work, disabled, child or infant, never worked	9890	9100
Blank, unknown, don't know, refused, n.a.	9990	9990

*2002 Census coding scheme.

The codes listed above are used with the Census 2002 Classification scheme. The unpaid worker codes used with the Census 2000 and Census 2010 Classification schemes can be found on the NIOSH I&O Coding website at:

<http://www.cdc.gov/niosh/topics/coding/training.html>

Blank Responses

NIOCCS assigns a code of '0000' if the put text is blank for either industry or occupation.

Industry Restrictions in the Census Occupation Index

Occupation codes in the Census Occupation Alphabetical Index may have industry restriction rules associated with them. The column labeled **Ind Restriction** will provide these rules for each occupation title.

	Title	Occ Code	Ind Restriction	SOC
Select	BOOKBINDER	8230		51-5012
Select	BOOKBINDING MACHINE OPERATOR	8230		51-5011
Select	BOOKER	0500	\ ANY NOT LISTED	13-1011
Select	BOOKER	8710	1390	51-9032
Select	BOOKER	8960	2380	51-9199
Select	BOOKIE	4400	(8590)	39-3012
Select	BOOKING AGENT	0500	(6570)	13-1011
Select	BOOKING CLERK	5500	6090	43-5011
Select	BOOKING CLERK	5120	4070- 4590	43-3031
Select	BOOKKEEPER	5120		43-3031

Occupation Titles with no Industry Restrictions

Some occupation titles occur in any type of industry and, therefore, are not restricted to a particular industry. These titles do not have an industry code in the **Ind Restriction** column.

Example:

Title	Occ Code	Ind Restriction	SOC
BOOKKEEPER	5120		43-3031

NOTE: Detailed instructions on how to use the CDC/Census Occupation Alphabetical Index and industry restrictions is taught in the NIOSH I&O coding training course. NIOSH recommends attending I&O coding training before using this feature of the NIOCCS system. For more information on training, visit the NIOSH I&O Coding website at: <http://www.cdc.gov/niosh/topics/coding/>

Following are examples of only some of the types of occupation titles with industry restrictions found in the occupation index. This is NOT an inclusive list of the industry restriction rules.

Users should reference the NIOSH website at <http://www.cdc.gov/niosh/topics/coding/training.html> for more detailed information on using industry restrictions from the CDC/ Census Occupation Alphabetical Index.

One Occupation Title with one industry code in the **Ind Restriction** column

Example:

Title	Occ Code	Ind Restriction	SOC
GENERAL CONTRACTOR	<u>0220</u>	0770	<u>11-9021</u>

In this example, code '0220' would be assigned for 'General Contractor' when the industry is '0770', blank, unknown, refused, or if the only entry for industry is retired.

Two or more of the same Occupation Titles with one industry code in **Ind Restriction**

Example:

Title	Occ Code	Ind Restriction	SOC
CONCILIATOR	<u>0620</u>	7390	<u>13-1079</u>
CONCILIATOR	<u>2110</u>	9180	<u>23-1022</u>

This means the occupation code '0620' can be assigned to the entry 'Conciliator' only when the industry has been assigned the code '7390'. Similarly, occupation code '2110' can be used only when industry is coded '9180'.

Occupation Titles with a Range of Industry Codes

Example:

Title	Occ Code	Ind Restriction	SOC
HAND PAINTER	<u>8810</u>	1470- 1670	<u>51-9123</u>

Assign occupation code '8810' to an entry of 'Hand Painter' only if the industry code falls within the range of '1470 – 1670'.

Occupation Titles with several industry codes in the **Ind Restriction** column

Example:

Title	Occ Code	Ind Restriction	SOC
POPCORN ATTENDANT	<u>4060</u>	6570, 8680, 8690	<u>35-3022</u>

As with the industry range, assign the occupation code '4060' only if the industry code assigned is one of those listed in the industry restriction.

Occupation Titles with a Specific Industry Title

Example:

Title	Occ Code	Ind Restriction	SOC
PAYROLL EXAMINER	<u>0560</u>	DEPT. OF LABOR 9570	<u>13-1041</u>

Code the occupation to '0560' for 'Payroll Examiner' only if the industry entry is 'Department of Labor' which is coded to '9570'.

Occupation Titles with Industry Code in Parentheses

Example:

Title	Occ Code	Ind Restriction	SOC
PRIVATE EYE	<u>3910</u>	(7680)	<u>33-902</u>

An industry code in parentheses means that this is the suggested industry code for this occupation title. This could be used in cases where the industry title is blank, unknown, NA, refused, retired, etc. to code the industry. If the industry title is not blank and the industry code is not the code in parentheses then the industry code should not be changed and the occupation code should be coded using the occ code for the title.

Occupation Titles with Industry code Preceded by a Number Sign (#)

Example:

Title	Occ Code	Ind Restriction	SOC
SCHOOL TRAFFIC GUARD	<u>3940</u>	#9470	<u>33-9091</u>

An industry code preceded by a number sign (#) means that this occupation can occur only in that industry. If the industry code was assigned other than the one preceded by the number sign, it should be changed to match the industry code listed.

6.6.2.5 Section #5. Industry and Occupation Codes Selected /Accepted

NIOCCS will automatically place a code in the industry or occupation code selection box if a match meets the autocoding confidence level setting. Otherwise the user must determine the correct code for the input text.

The **Accept** button is used when a code is entered by the user into the **Ind Code** or **Occ Code** boxes. This means the user has confirmed the code entered as the 'accepted' code for the record. Once the **Accept** button is clicked, the code will be highlighted in green.

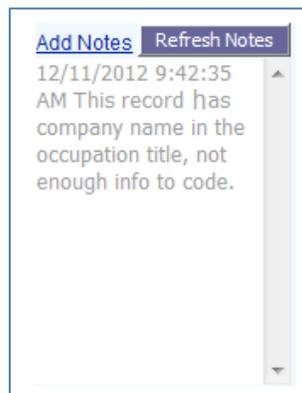
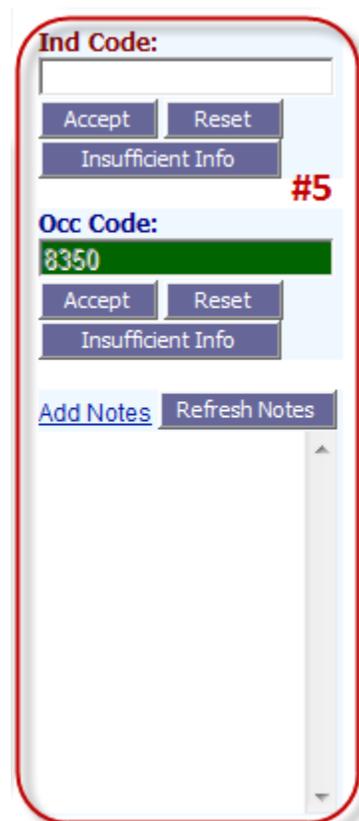
The **Reset** button will clear a code from the **Ind Code** or **Occ Code** box.

The **Insufficient Info** button is used to indicate that insufficient information is available on the input text to be able to code the response. Clicking this button will place '9990' in the code box and it will be highlighted green (accepted) automatically.

The **Add Notes** link will open a pop-up box to enter remarks about the record being coded.



The **Refresh Notes** button will refresh the notes box on the screen to ensure all notes are visible.



6.6.3 How to Assign Industry and Occupation Codes

An industry or occupation code can be assigned in one of four ways:

- 1) By clicking the **Select** link next to the code in the **Ind Matches** and/or **Occ Matches** boxes of the NIOCCS matched candidates.

Assisted I/O Coding

Industry Title: AUTOMOBILE DEALERSHIP
Occupation Title: AUTOMOBILE TRANSMISSION MECHANIC
Employer: Enter Employer Here
Job Duties: Enter Job Duties Here

[Show Other I&O Info](#) Autocoding Confidence Level: MEDIL

10 Ind Matches

Confidence Level	Ind Code	Ind Matched
Select LOW	6970	OIL LEASE DEALERS
Select LOW	4680	MOTOR HOME DEALERS (RET.)
Select LOW	4690	AUTO BATTERY DEALER (RET.)
Select LOW	4070	AUTO DEALER (WHSL.)
Select LOW	4670	AUTO DEALER (RET.)

10 Occ Matches

Confidence Level	Occ Code	Occ Matched
Select LOW	7200	MECHANIC, TRANSMISSION, AUTO
Select LOW	7610	HELPER, AUTOMOBILE MECHANIC
Select LOW	7020	TOLL TRANSMISSION MAN
Select LOW	8850	AUTOMOBILE BRAKE BENDER

Once the **Select** link is clicked, the code will be placed in the **Ind Code** and/or **Occ Code** boxes in the Select/Accept section of the screen on the right side. The box(es) will be highlighted green automatically indicating the code(s) are considered accepted as the correct code(s) for the record.



Ind Code:
4670
Accept Reset
Insufficient Info

Occ Code:
7200
Accept Reset
Insufficient Info

- 2) By clicking the **Select** link next to the code in the Industry or Occupation Alphabetic Index boxes.

Industry Index Find:

	Title	Ind Code	NAICS	Occ Code
Select	AUTO DEAD STORAGE	6390	493190	
Select	AUTO DEALER (RET.)	4670	441110	
Select	AUTO DEALER (WHSL.)	4070	423120	
Select	AUTO DEALER \ N.S. (RET.)	4670	441100	
Select	AUTO DEFROSTERS (MFG.)	3570	336322	
Select	AUTO DETAILING, EXC. REPAIR	8780	811192	
Select	AUTO DETAILING, REPAIR	8770	811111	
Select	AUTO DETECTIVE BUREAU	7680	561611	
Select	AUTO DIAGNOSTIC CENTER	8770	811198	
Select	AUTO DISTRIBUTORS (MFG.)	3570	336322	

« ‹ ‹ ‹ 93 94 95 96 › › › ›

Occupation Index Find:

	Title	Occ Code	Ind Restriction	SOC
Select	MECHANIC, TRAILER	7210		49-3031
Select	MECHANIC, TRANSCRIBING MACHINE	7010		49-2011
Select	MECHANIC, TRANSFORMER	7040		49-2092
Select	MECHANIC, TRANSMISSION, AUTO	7200		49-3023
Select	MECHANIC, TRANSMISSION, BUS, RAILROAD, TRUCK	7210		49-3031
Select	MECHANIC, TREATMENT PLANT	7330		49-9041
Select	MECHANIC, TRESTLE	6230	(0270)	47-2031
Select	MECHANIC, TRIM	7150	(3570)	49-3021
Select	MECHANIC, TRIPLE VALVE	7220	(6080)	49-3043
Select	MECHANIC, TROLLEY CAR	7220		49-3043

« ‹ ‹ ‹ 1721 1722 1723 1724 › › › ›

Once the **Select** link is clicked, the code will be placed in the **Ind Code** and/or **Occ Code** boxes in the Select/Accept section of the screen on the right side. The box(es) will be highlighted green automatically indicating the code(s) are considered accepted as the correct code(s) for the record.



Ind Code:

4670

Accept
Reset

Insufficient Info

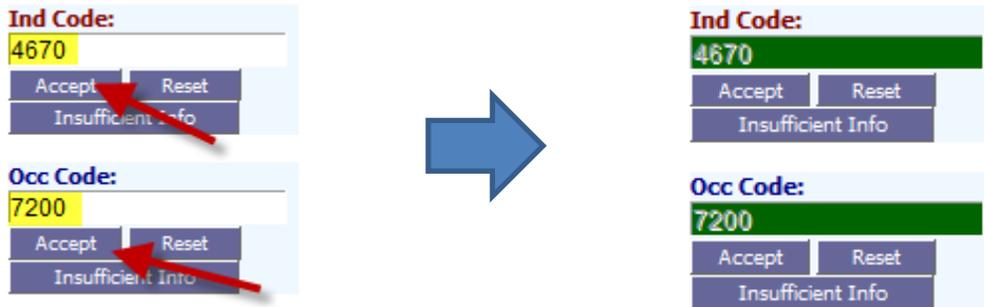
Occ Code:

7200

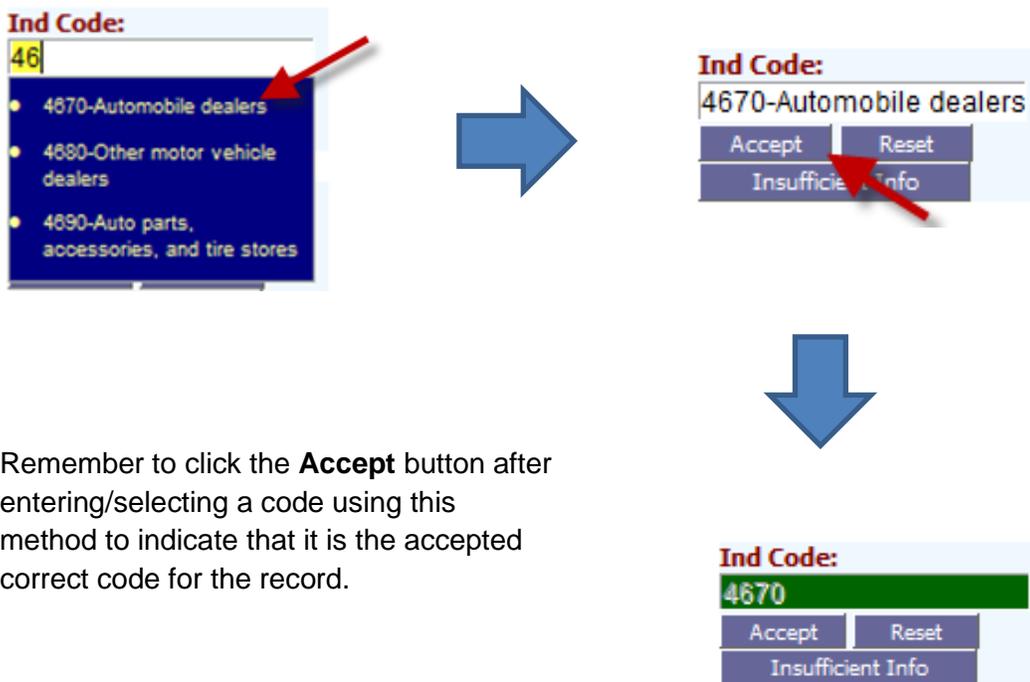
Accept
Reset

Insufficient Info

- 3) By entering a code directly into the **Ind Code** or the **Occ Code** boxes then clicking the **Accept** button. Once the **Accept** button is clicked, the code will be highlighted in green.



As a code is typed into either box, NIOCCS will help the user by displaying codes and titles in a drop down list. The user can click the code/title in the drop down if desired instead of completing the typing of the code.



Remember to click the **Accept** button after entering/selecting a code using this method to indicate that it is the accepted correct code for the record.

- 4) By using the **View All** feature of the Computer-assisted I&O Coding screen to code more than one record at a time.

The **View All** feature will display the records of the file in a table (or spreadsheet) type format.

Close File
Autocode CL: HIGH

Scheme:
CENSUS 2002

File:
Example_2002_high

Record Id:
114

Review / Edit Records

All Comp-Assisted

Submit

<-Prev Next->

First Last

View All

Record 7 of 10



Coding Account Help currently logged on as sxn1@cdc.gov Logoff

View All I&O Records

Click one of the Record ID values to return to the Computer-Assisted coding screen.

« < 1 > » Records Per Page: 30 Find Ind title beginni Find Sort by: Order in Original | A to Z (Ascendir

Record ID	Industry Title	Occupation Title	Census Ind Title	Census Occ Title	Ind Code	Ind Auto-coded?	Occ Code	Occ Auto-coded?	Notes?
101	RETAIL SALES	JC PENNY EMPLOYEE	DEPARTMENT STORE BEAUTY SHOP	CASHIERS	8980	N	4720	N	
103	TELEVISION	CAMERA OPERATOR							
108	RETAIL FOODS	CLERK							
109	NEWSPAPER PUBLICATIONS	NEWSPAPER DELIVERY							
110	MANUFACTURING	TOOL & DYE							
111	FABRIC MANUFACTURING	SEAMSTRESS							
114	PIGGLY WIGGLY	MEAT CUTTER							
115	REMKE MARKET	CASHIER							
116	PRESTON-SAFEWAY	BAGGER							
117	KROGER	BAGGER							

« < 1 > »

Refresh List
Close File
Autocode CL: HIGH
All Comp-Assisted
Scheme: CENSUS 2002
File: example
Ind Code: Leave it blank if no change
Occ Code: Leave it blank if no change
Save
Total Selected: 0

In the example above, the file has several records with a grocery store company name as the input industry text. Since all these records should be assigned the same industry code, they can be coded at the same time (also known as 'bulk coding').

The user must first know what the correct industry code is for 'grocery store'. The CDC/Census Industry Alphabetical Index can be used to find the correct code.

Industry Index Find:

	Title	Ind Code	NAICS	Occ Code
Select	GROCERY AND SERVICE STATION, WITH GROCERY STORE TYPE OCCUPATIONS (RET.)	4970	445110	
Select	GROCERY CHAIN WAREHOUSE	6390	493100	
Select	GROCERY DISTRIBUTOR (WHSL.)	4470	424410	
Select	GROCERY STORE (RET.)	4970	445110	
Select	GROCERY STORE GARAGE (RET.)	4970	445110	
Select	GROCETERIA (RET.)	4970	445110	
Select	GROMMETS (WHSL.)	4270	423840	
Select	GROMMETS, RUBBER (MFG.)	2390	326299	
Select	GROOVE PINS, METAL (MFG.)	2880	332722	
Select	GROSGRAIN, COTTON (MFG.)	1480	313221	

« < ... [861](#) [862](#) [863](#) [864](#) ... > »

After clicking **View All**, the user can click each of the check boxes next to the grocery store entries for Industry title, enter the industry code in the **Ind Code** box on the right side of the screen, then click the **Save** button. All four records will be assigned the same code.

View All I&O Records

Click one of the Record ID values to return to the Computer-Assisted coding screen.

« < 1 > » Records Per Page: Find Sort by:

<input type="checkbox"/>	Record ID	Industry Title	Occupation Title	Census Ind Title	Census Occ Title	Ind Code	Ind Auto-coded?	Occ Code	Occ Auto-coded?	Notes?
<input type="checkbox"/>	101	RETAIL SALES	JC PENNY EMPLOYEE	DEPARTMENT STORE BEAUTY SHOP	CASHIERS	8980	N	4720	N	
<input type="checkbox"/>	103	TELEVISION	CAMERA OPERATOR							
<input type="checkbox"/>	108	RETAIL FOODS	CLERK							
<input type="checkbox"/>	109	NEWSPAPER PUBLICATIONS	NEWSPAPER DELIVERY							
<input type="checkbox"/>	110	MANUFACTURING	TOOL & DYE							
<input type="checkbox"/>	111	FABRIC MANUFACTURING	SEAMSTRESS							
<input checked="" type="checkbox"/>	114	PIGGLY WIGGLY	MEAT CUTTER							
<input checked="" type="checkbox"/>	115	REMKE MARKET	CASHIER							
<input checked="" type="checkbox"/>	116	PRESTON-SAFEWAY	BAGGER							
<input checked="" type="checkbox"/>	117	KROGER	BAGGER							

« < 1 > »

Autocode CL: **HIGH**
All Comp-Assisted
Scheme: **CENSUS 2002**
File: **example**
Ind Code:

Occ Code:

Total Selected: **4**



The result of the 'bulk coding' is shown below.

View All I&O Records

Click one of the Record ID values to return to the Computer-Assisted coding screen.

« < 1 > » Records Per Page: 30 Find Ind title beginni Find Sort by: Order in Original | A to Z (Ascendir

Record ID	Industry Title	Occupation Title	Census Ind Title	Census Occ Title	Ind Code	Ind Auto-coded?	Occ Code	Occ Auto-coded?	Notes?
<input type="checkbox"/> 101	RETAIL SALES	JC PENNY EMPLOYEE	DEPARTMENT STORE BEAUTY SHOP	CASHIERS	8980	N	4720	N	
<input type="checkbox"/> 103	TELEVISION	CAMERA OPERATOR							
<input type="checkbox"/> 108	RETAIL FOODS	CLERK							
<input type="checkbox"/> 109	NEWSPAPER PUBLICATIONS	NEWSPAPER DELIVERY							
<input type="checkbox"/> 110	MANUFACTURING	TOOL & DYE							
<input type="checkbox"/> 111	FABRIC MANUFACTURING	SEAMSTRESS							
<input type="checkbox"/> 114	PIGGLY WIGGLY	MEAT CUTTER	GROCERY STORES		4970	N			
<input type="checkbox"/> 115	REMKE MARKET	CASHIER	GROCERY STORES		4970	N			
<input type="checkbox"/> 116	PRESTON-SAFEWAY	BAGGER	GROCERY STORES		4970	N			
<input type="checkbox"/> 117	KROGER	BAGGER	GROCERY STORES		4970	N			

« < 1 > »

Refresh List
Close File
Autocode CL: HIGH
All Comp-Assisted
Scheme: CENSUS 2002
File: example
Ind Code:
Leave it blank if no change
Occ Code:
Leave it blank if no change
Save
Total Selected: 0

The **View All** computer-assisted coding feature is often used to perform quality assurance on coding results. The file can be sorted in various ways which can be helpful in reviewing similar industry and occupation titles or codes.

The sorting options for the **View All** screen include:

Order in Original File

- Order in Original File
- Record Id
- Ind title + Occ title
- Occ title + Ind title
- Ind code + Occ code
- Occ code + Ind code
- Ind title
- Occ title
- Ind code
- Occ code

To return to the Computer-assisted I&O Coding screen (one record at a time coding), click on one of the Record ID values and the user will be returned to that record.

Record ID	Industry Title	Occupation Title	Census Ind Title	Census Occ Title	Ind Code	Occ Code	Notes?
<input type="checkbox"/> 101	RETAIL SALES	JC PENNY EMPLOYEE	RETAIL STORE \ TYPE NOT SPECIFIED		5790		
<input type="checkbox"/> 103	TELEVISION	CAMERA OPERATOR					

6.7 Downloading I&O Coded Files

A file can be downloaded at any time after the autocoding process has completed, even if all manual coding is not complete. In the example below, the user has completed coding all 17 records in the 'Example1_2002_high' file and is ready to download the results.

To download a file, click the **Select** link next to the file to be downloaded, then click the **Download** button on the right side of the screen.

NIOSH Industry and Occupation Computerized Coding System (NIOCCS)

NIOSH > NIOCCS HOME

Coding Account Help currently logged on as sxn1@cdc.gov Logoff

Autocoded File Status

Show All Show I/O Files Only Show Crosswalk Files Only Filter by: None

Records Per Page: 30 Refresh List Check Autocoding Progress Click [Select](#) on a desired row to review and manage the file.

Run Name	File Name	Census Coding Scheme	Confidence Level	Total # Records	# Ind Coded	# Occ Coded	Expiration Date	Status
Select Example1_2002_high	IO_Coding_Example1.txt	2002	HIGH	17	17	17	2/3/2013 12:00:00 AM	Autocode Done
Select EHR_CHA_2000_high	EHR_CHA_data_Occ_only_NIOCCS_ready1_test.txt	2000	HIGH	4992	614	2827	2/3/2013 12:00:00 AM	Autocode Done
Select MO_2002_high	MO_2011_IND_OCC_NIOCCS_ready.txt	2002	HIGH	1232	861	930	2/3/2013 12:00:00 AM	Autocode Done

Review / Edit Records

All Comp-Assisted Submit

Manage File Download Remove

A pop-up box will be displayed for the user to enter/select download options.

Download file format options include:

- Plain Text
- MS Excel

By default, NAICS and SOC codes will be included in the output file, however these can be suppressed by clicking the check boxes next to these options.

After download options are selected, click the **Save** button to download.

http://www.cdc.gov/?fileId=1139&batchId=-2&cr...

Choose a file format: Plain Text

Choose a data field delimiter: Tab

Include NAICS code?

Include SOC code?

Save

[Close Window](#)

Trusted sites | Protected Mode: Off 100%

The example downloaded file is displayed below in Excel:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
1	File Name:	IO_Coding_Example1.txt																		
2	Target Scheme:	CENSUS 2002																		
3	Confidence Level:	HIGH																		
4	ID	Industry Title	Occupation Title	Ind code	Ind Auto-coded?	Occ Code	Occ Auto-coded?	Company	Job duties	Employer	Employer	Employer	Age	Education	User defir	User defir	Coding	Naics	Coc	SOC Code
5	101	RETAIL SALES	JC PENNY EMPLOYEE	5380	N	4720	N	JC PENNY CASHIER	TOPEKA	KS	23566	56	HIGH SCH	TEST 1	TEST2			452111	41-2011	
6	102	BANK	CASHIER	6870	Y	5160	Y	PNC BANK COUNT M	CINCINNA	OH	45555							521110	43-3071	
7	103	TELEVISION	CAMERA OPERATOR	6670	N	2910	N	CBS										515100	27-4021	
8	104	SELF-EMPLOYED	ATTORNEY	7270	Y	2100	Y											541110	23-1011	
9	105	CITY GOVERNMENT	CLERK	9390	Y	5860	Y					12345-678						921190	43-9061	
10	106	HOSPITL	DOCTOR	8190	Y	3060	Y	ST. GOMA MAKING F										622000	29-1061	
11	107	HOME	HOMEMAKER	9890	Y	9010	Y							USD1	USD2					
12	108	RETAIL FOODS	CLERK	4970	N	5860	N											445100	43-9061	
13	109	NEWSPAPER PUBLICATION	NEWSPAPER DELIVERY	6470	N	9130	N							12				511110	53-3031	
14	110	MANUFACTURING	TOOL & DYE	3990	N	8130	N	PITTSBUR	PA			26						31-33	51-4111	
15	111	FABRIC MANUFACTURING	SEAMSTRESS	1480	N	8350	Y											313200	51-6051	
16	112	OWN HOME	HOMEMAKER/MOTHER	9890	Y	9010	Y													
17	113	HOUSEKEEPING	HOMEMAKER	9890	Y	9010	Y													
18	114	PIGGLY WIGGLY	MEAT CUTTER	4970	N	7810	Y											445100	51-3021	
19	115	REMKE MARKET	CASHIER	4970	N	4720	Y					555555						445100	41-2011	
20	116	PRESTON-SAFEWAY	BAGGER	4970	N	9620	Y	SAFEWAY BAGGING	DAYTON	OH								445100	53-7062	
21	117	KROGER	BAGGER	4970	N	9620	Y						15		XYAOIOE	OLIROIGO		445100	53-7062	

The output file from NIOCCS will contain all the data that was originally uploaded plus the following additional information:

Fields in the Output File produced by NIOCCS	
File Name	Name of the original file uploaded.
Target Scheme	The Census I&O Classification scheme chosen when the file was autocoded.
Confidence Level	The Confidence Level that was chosen when the file was autocoded.
Ind Code	The industry code selected for the input industry title.
Ind Auto-coded?	Flag indicating how the industry code was selected: Y = The code was selected by the NIOCCS coding engine (autocoded) N = The code was selected manually using the computer-assisted coding module Blank = No code was assigned, that is, the industry was not autocoded nor was it manually coded.
Occ Code	The occupation code selected for the input occupation title.

Fields in the Output File produced by NIOCCS	
Occ Auto-coded?	<p>Flag indicating how the occupation code was selected:</p> <p>Y = The code was selected by the NIOCCS coding engine (autocoded)</p> <p>N = The code was selected manually using the computer-assisted coding module</p> <p>Blank = No code was assigned, that is, the occupation was not autocoded nor was it manually coded.</p>
Coding Notes	Any notes entered for the record using the computer-assisted coding screens will be provided in this field.
NAICS	The NAICS code associated with the industry code will be included if this option was chosen in the download process.
SOC	The SOC code associated with the occupation code will be included if this option was chosen in the download process.

7 CROSSWALK CODING

Crosswalk coding is the mapping of a code from one I&O classification coding scheme to another I&O classification coding scheme or to a different code within the same I&O coding scheme for a different year.

Industry and Occupation Classification Coding Schemes

NIOCCS is based on the Bureau of Census industry and occupation classification coding schemes as the primary source for autocoding and crosswalking. Each Census industry code is linked to an associated North American Industry Classification System (NAICS) code and each Census occupant code is linked to an associated Standard Occupation Code (SOC), *with the exception of unpaid workers*. NAICS and SOC do not include codes for unpaid workers.

The table below describes these industry and occupation classification coding schemes and the time frames for which they are updated.

Industry and Occupation Classification Systems		
		Years Updated
<u>Industrial Classification System</u>		
North American Industry Classification System (NAICS)	Developed jointly by the U.S. Office of Management and Budget, Canada, and Mexico to provide new comparability in statistics about business activity across North America.	1997, 2002, 2007, 2012 Updated every 5 years.
Census Alphabetical Index of Industries	Developed primarily for use in classifying a respondent's industry (employer's type of business) as reported in the Census, the Current Population Survey, the American Community Survey, and other demographic surveys conducted by the Census.	1980, 1990, 2000, 2002, 2007, 2012 Updated as NAICS is updated.
<u>Occupational Classification Systems</u>		
Standard Occupational Classification (SOC)	Developed by the Bureau of Labor Statistics for classifying all occupations in the economy, including private, public, and military occupations.	1980, 2000, 2010
Census Alphabetical Index of Occupations	Developed primarily for use in classifying a respondent's occupation (employee's type of work) as reported in the Census, the Current Population Survey, the American Community Survey, and other demographic surveys conducted by the Census.	1980, 1990, 2000, 2002, 2010 Updated as SOC is updated and continuously through review of census and survey responses.

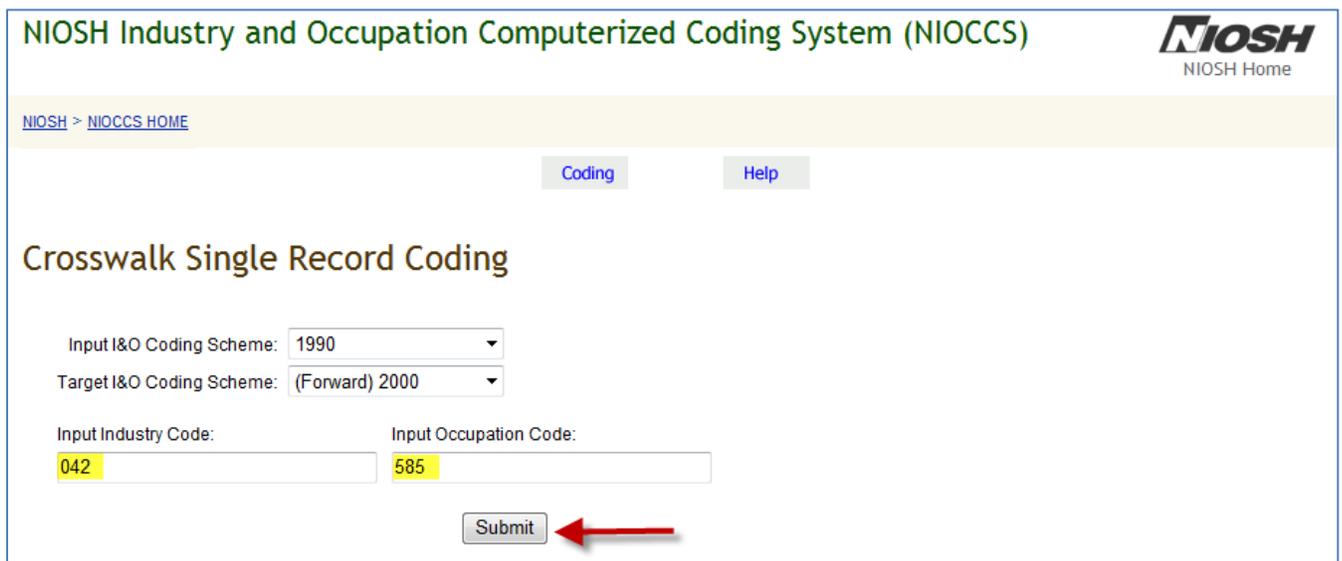
Data submitted to NIOCCS for crosswalking must be in one of the Census classification schemes, that is, Census 1990, 2000, 2002, or 2010. Users can not crosswalk from NAICS or SOC to Census codes, however, NAICS and SOC codes can be obtained from Census codes. *For more information on I&O Classification Schemes, see Appendix B.*

7.1 Crosswalk Single Record Coding

Crosswalking a single record can be performed whether a user has a NIOCCS account nor not. To access the crosswalk single record coding screen, hover on the **Coding** menu item and select **Crosswalk Single Record Coding** from the drop-down list as shown below:



On the **Crosswalk Single Record Coding** screen, users can enter industry and/or occupation codes in the fields provided, choose the **input Census I&O coding scheme** and the **target Census I&O coding scheme** for crosswalk, then click the **Submit** button. NIOCCS will process the information and return results for the user to review.

A screenshot of the NIOCCS web application interface. The header shows "NIOSH Industry and Occupation Computerized Coding System (NIOCCS)" and the NIOSH logo. Below the header is a navigation bar with "Coding" and "Help" buttons. The main content area is titled "Crosswalk Single Record Coding". It contains two dropdown menus: "Input I&O Coding Scheme" with "1990" selected and "Target I&O Coding Scheme" with "(Forward) 2000" selected. Below these are two text input fields: "Input Industry Code" with "042" and "Input Occupation Code" with "585". A "Submit" button is located at the bottom right, with a red arrow pointing to it.

In the example below, the user crosswalked Census I&O codes from the 1990 coding scheme to the Census 2000 coding scheme. The information used was the following:

Industry code = 042 Industry title = Petroleum
Occupation code = 585 Occupation title = Pipefitter

NIOCCS results show that industry code 042 in the Census 1990 coding scheme is equal to industry code 037 in the Census 2000 coding scheme. Similarly, occupation code 585 in the Census 1990 coding scheme is equal to the occupation code 644 in the Census 2000 coding scheme. NIOCCS provides the standard Census industry and occupation titles for each of the crosswalked codes in addition to the associated NAICS and SOC codes.

Industry:	Code	Standard Title	NAICS
	037	OIL AND GAS EXTRACTION	21111

Occupation:	Code	Standard Title	SOC
	644	PIPELAYERS, PLUMBERS, PIPEFITTERS, AND STEAMFITTERS	47-2151

The crosswalk process does NOT use industry or occupation titles to obtain codes, only the input codes are used. It is helpful to know what the titles are however in cases where the crosswalk results show more than one target code for the input code.

For example, if the following information is used to crosswalk using input I&O coding scheme=1990 and target I&O coding scheme=2000:

Industry code = 172 Industry title = Printing
Occupation code = 734 Occupation title = Machine Operator

They will be presented with the following results:

Crosswalk Single Record Coding

Input I&O Coding Scheme: ▼
Target I&O Coding Scheme: ▼

Input Industry Code: Input Occupation Code:

Crosswalk Results:

Industry:	Code	Standard Title	NAICS
	199	PRINTING AND RELATED SUPPORT ACTIVITIES	3231
	648	PUBLISHING EXCEPT NEWSPAPERS AND SOFTWARE	511120

Occupation:	Code	Standard Title	SOC
	824	JOB PRINTERS	51-5021
	826	PRINTING MACHINE OPERATORS	51-5023

Without the I&O titles associated with the input codes, it would be difficult to know which of the industry and occupation crosswalk codes to choose in the example above. Knowing that the industry title is 'Printing' then the most appropriate Census 2000 industry code would be 199. Knowing the occupation title is 'Machine Operator' then the most appropriate Census 2000 occupation code would be 826.

Crosswalk Coding Scheme Options

Users can only crosswalk from one Census I&O coding scheme to the next immediate coding scheme revision. For example, if the input codes are from Census 1990 then they can only be crosswalked to Census 2000, that is, they cannot be crosswalked directly to Census 2002.

NIOCCS can crosswalk codes forward or backward.

Crosswalk options are currently limited to the following coding schemes:

Input I&O Coding Scheme option	Target I&O Coding Scheme options
Census 1990	(Forward) Census 2000
Census 2000	(Backward) Census 1990 (Forward) Census 2002
Census 2002	(Backward) Census 2000 (Forward) Census 2010
Census 2010	(Backward) Census 2002

Obtaining more Information about I&O Codes

Users can click on the industry or occupation codes in the crosswalk results to get a list of all the Census titles that are associated with that code.

In the example below, the user has clicked on the **826** occupation code to view the list of Census occupation titles, from the Census 2002 coding scheme, with this code.

Crosswalk Results:

Industry:	Code	Standard Title	NAICS
	199	PRINTING AND RELATED SUPPORT ACTIVITIES	3231
	648	PUBLISHING EXCEPT NEWSPAPERS AND SOFTWARE	511120

Occupation:	Code	Standard Title	SOC
	824	JOB PRINTERS	51-5021
	826	PRINTING MACHINE OPERATORS	51-5023



(partial list of 826 Census occupation titles)

Category: Printing Machine Operators				
Occ Code	Title	Ind Restriction	Naics Restriction	SOC
826	ANILINE PRESS MAN			51-5023
826	APPRENTICE \ N.S.	199, 647, 648	3231, 511	51-5023
826	APPRENTICE, CYLINDER PRESS OPERATOR	199, 647, 648	3231, 511	51-5023
826	APPRENTICE, ELECTROTYPYER			51-5023
826	APPRENTICE, EMBOSSER			51-5023
826	APPRENTICE, EMBOSSING PRESS OPERATOR			51-5023
826	APPRENTICE, OFFSET PRESS OPERATOR			51-5023
826	APPRENTICE, PLATEN PRESS OPERATOR			51-5023
826	APPRENTICE, PRESS OPERATOR			51-5023
826	APPRENTICE, PRINTER			51-5023
826	APPRENTICE, PRINTING PRESS OPERATOR			51-5023
826	APPRENTICE, STEROTYPER			51-5023
826	APPRENTICE, WEB PRESS OPERATOR			51-5023
826	ASSISTANT, PRESS OPERATOR			51-5023
826	ASSISTANT, PRINTER \ N.S.			51-5023
826	BACK UP MACHINE OPERATOR	(199)	(3231)	51-5023
826	BACKER	(199)	(3231)	51-5023
826	BAG PRESS OPERATOR	(199)	(3231)	51-5023
826	BAG PRINTER	128, 167, 199	3117, 3119, 31324, 3151, 3231	51-5023
826	BATTERYMAN	199, 647, 648	3231, 511	51-5023
826	BI LOCK PRINTER	147-167	313 314 3151	51-5023



NAICS and SOC definitions can also be obtained by clicking on the NAICS or SOC linked codes from the Census title listings or directly from the **Crosswalk Results** section of the Computer-assisted Crosswalk screen.



Code: 51-5023
Title: PRINTING MACHINE OPERATORS
Publish Year: 2000
Description:
 SET UP OR OPERATE VARIOUS TYPES OF PRINTING MACHINES, SUCH AS OFFSET, LETTERSET, INTAGLIO, OR GRAVURE PRESSES OR SCREEN PRINTERS TO PRODUCE PRINT ON PAPER OR OTHER MATERIALS.

7.2 Uploading a File for Crosswalk Coding

7.2.1 NIOCCS Input File Format for Crosswalk Coding

Files uploaded to NIOCCS for Crosswalk coding must be in a standard .txt file format delimited by a Tab or Pipe character (|). The file must have the 5 fields (columns) listed below even if data is not available for each field. * Each record must have an ID field and at least one value in either the Industry Code or Occupation Code fields.

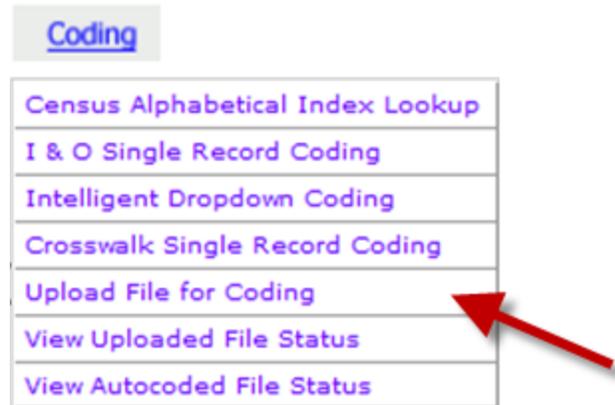
1. ID = Unique Identifier *
2. Industry Title
3. Occupation Title
4. Industry Code *
5. Occupation Code *

Example Input File for Crosswalk Coding

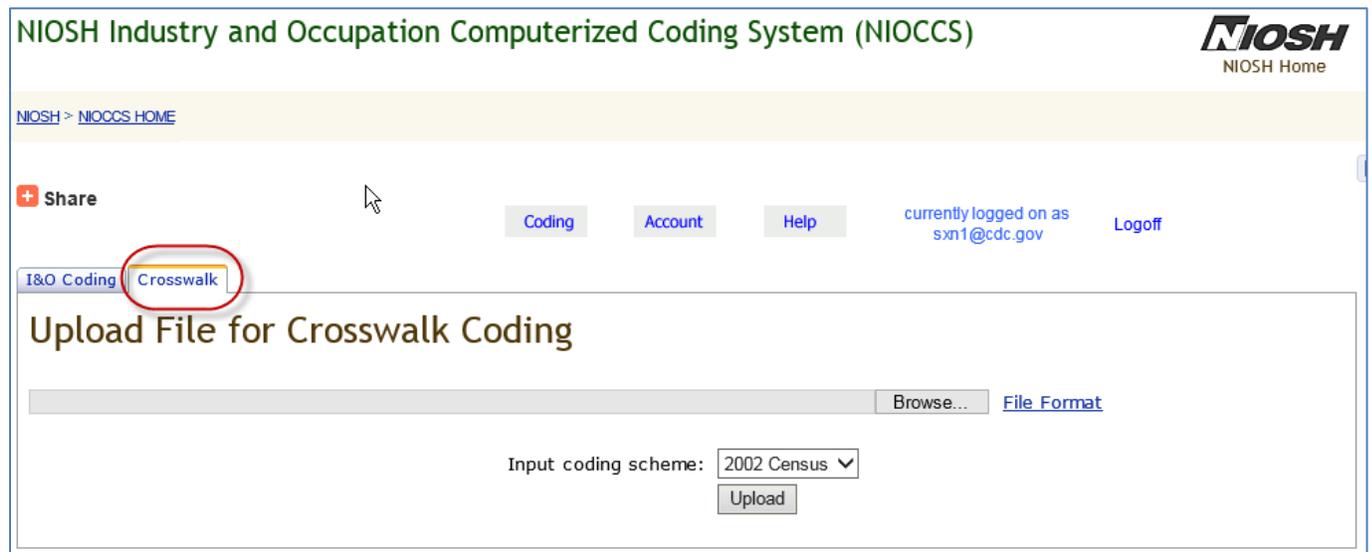
ID	Industry Title	Occupation Title	Ind code	Occ code
184623	AGRICULTURE	DAIRY FARMER	011	473
304111	BUILDING CONSTRUCTION	CONTRACTOR	060	558
317144	LUMBER	LABORER	231	889
356668	BUILDING	CONTRACTOR	060	558
406457	AVOCADO FARMER	RANCHER	010	473
611129	DOUGLAS AIRCRAFT		227	999
2263962	PETROLEUM	PIPEFITTER	042	585
2712435	FARMING & MINING		010	999
2819309	ATTORNEY	RETIRED-ATTORNEY	841	178
2873324	GEOLOGY	GEOLOGIST	042	075
2874954	LAW	ATTORNEY	841	178
3167323	HOPE MANOR	NURSE AID	832	447
3167826	AUTOMOTIVE	INSPECTOR	751	036
3169215	OFFICE WORKER	OFFICE WORKER	990	379
3169810	HEALTH CARE	PSYCHIATRIST	812	084
3170338	BANKING	BANK TELLER	700	383
3170351	AGRICULTURE BUSINESS	SUPPLY CLERK-FOSTER FARMS	100	365
3171023	COUR REPORTING AGENCY	ACCOUNT EXECUTIVE	741	259
3172448	COMPUTER	MANAGER	990	022
3210923	STUDENT	COLLEGE STUDENT	961	915
3255447	OIL	GEOLOGIST	042	075

7.2.2 Upload File for Crosswalk Coding screen

To process a file of records for crosswalk coding, the user must hover on the **Coding** menu item then select **Upload File for Coding** from the drop-down list as shown below:



The **Upload File for I/O Coding** screen may appear by default. Click the **Crosswalk** tab to go to the **Upload File for Crosswalk Coding** screen as shown below.



To review the input file format description for Crosswalk coding, click the **File Format** PDF link.

To upload a file for Crosswalk coding:

Click the **Browse** button on the **Upload File for Crosswalk Coding** screen. This will open a dialog box to choose the file to upload.

Select the **Input coding scheme** from the drop down list. This is the coding scheme in which the input data is coded.

Click the **Upload** button to upload the file.

The screenshot displays the NIOCCS web interface. At the top, it says "NIOSH Industry and Occupation Computerized Coding System (NIOCCS)" and "NIOSH Home". Below that, there's a navigation bar with "I&O Coding" and "Crosswalk" tabs. The main heading is "Upload File for Crosswalk Coding". The interface includes a file path: "\\Cdc\project\NIOSH_DSHEFS_SB_NIOCCS\Archives_for_NIOCCS_Project\Beta_Testing\Training_Test_Fi", a "Browse..." button, and a "File Format" link. Below this, there's a label "Input coding scheme:" followed by a dropdown menu currently showing "1990 Census" and an "Upload" button. Three red arrows point to the "Browse..." button, the "1990 Census" dropdown, and the "Upload" button.

NIOCCS will verify the format of the file being uploaded and provide feedback to the user as shown below.

NOTE: *If Microsoft Excel was used to create the .txt. file, make sure that the industry and occupation input code columns are set to **text** format, otherwise the leading zero in some I&O codes will be dropped and the input codes will not crosswalk.*

I&O Coding | Crosswalk

Upload File for Crosswalk Coding

Browse... [File Format](#)

Input coding scheme: 1990 Census

In file "\\Cdc\project\NIOOSH_DSHEFS_SB_NIOCCS\Archives_for_NIOCCS_Project\Beta_Testing\Training_Test_Files\1990_2000_crosswalk_Occ_only.txt":

Number of records found :	41
Number of valid records loaded without error:	40
Number of records skipped:	1
Number of records NOT loaded due to error:	0

Do you want to continue to upload the file with 40 valid records?

In the example above, one records was skipped because this file had a header row containing labels for the data columns. Header rows are skipped automatically by NIOCCS.

If no errors are found, click the **Yes** button to confirm and continue with the upload.

If errors are found that need to be fixed, click the **No** button to cancel the upload. An example file with errors is shown below.

I&O Coding | Crosswalk

Upload File for Crosswalk Coding

Browse... [File Format](#)

Input coding scheme: 1990 Census

In file "\\Cdc\project\NIOOSH_DSHEFS_SB_NIOCCS\Beta_Testing\Training_Test_Files\crosswalk_Example3_with_errors_1990_2000.txt":

Number of records found :	41
Number of valid records loaded without error:	0
Number of records skipped:	1
Number of records NOT loaded due to error:	40

```
Line 2: not loaded because ind code or its place holder was not found.
Line 3: not loaded because ind code or its place holder was not found.
Line 4: not loaded because ind code or its place holder was not found.
Line 5: not loaded because ind code or its place holder was not found.
```

7.2.3 Upload File Status Screen

After uploading the file, the **Upload File Status** screen will appear as shown below. This screen will display all active files (I&O and Crosswalk) uploaded to NIOCCS by the user. If the user has uploaded more than one file then each file is displayed in a separate line.

NIOSH Industry and Occupation Computerized Coding System (NIOCCS)


[NIOSH > NIOCCS HOME](#)

Coding
Account
Help

currently logged on as
 sxn1@cdc.gov Logoff

Uploaded File Status

Show All
 Show I/O Files Only
 Show Crosswalk Files Only
 Filter by: None

« < 1 > » Records Per Page: 30
 Click [Select](#) on a desired row to code or remove the file.

File	Loaded Date	Size (KB)	# Records	Status	Expiration Date
Select crosswalk_Example2_1990_2000.txt	12/7/2012 4:41:50 PM	2	40	Uploaded	2/5/2013 4:41:50 PM
Select crosswalk_Example3_with_errors_1990_2000.txt	12/7/2012 4:37:14 PM	2	0	Upload Error	2/5/2013 4:37:14 PM
Select EHR_CHA data_Occ_only_NIOCCS_ready1_test.txt	12/5/2012 10:39:26 AM	141	4992	Uploaded	2/3/2013 10:39:26 AM
Select MO_2011_IND_OCC_NIOCCS_ready.txt	12/5/2012 10:35:05 AM	63	1232	Uploaded	2/3/2013 10:35:05 AM
Select IO_Coding_Example1.txt	12/4/2012 5:51:39 PM	2	17	Uploaded	2/2/2013 5:51:39 PM
Select Sue NIOCCS_TestBatchFile.txt	12/4/2012 5:51:15 PM	2	21	Uploaded	2/2/2013 5:51:15 PM
Select I_O coding file beta train.txt	12/4/2012 5:50:40 PM	3	49	Uploaded	2/2/2013 5:50:40 PM

« < 1 > »

Upload File Status screen options	
<input checked="" type="radio"/> Show All <input type="radio"/> Show I/O Files Only <input type="radio"/> Show Crosswalk Files Only	Filters the types of files displayed in the list (I&O Coding files, Crosswalk files, all files)
Records Per Page: 30	Controls the number of files displayed on the page.
Filter by: None	Allows the user to filter the files by those that are near expiration. <i>(See Chapter 9.1 File Retention and Removal for more information).</i>
<u>Select</u>	The <u>Select</u> link next to each file name allows the user to select a desired file to code or to remove.

7.3 Submitting a File for Crosswalk Coding

From the **Uploaded File Status** screen, click the **Select** link next to the file to be crosswalked. The selected file will be highlighted and coding options will be displayed on the right side of the screen.

Uploaded File Status

Show All
 Show I/O Files Only
 Show Crosswalk Files Only
 Filter by: None

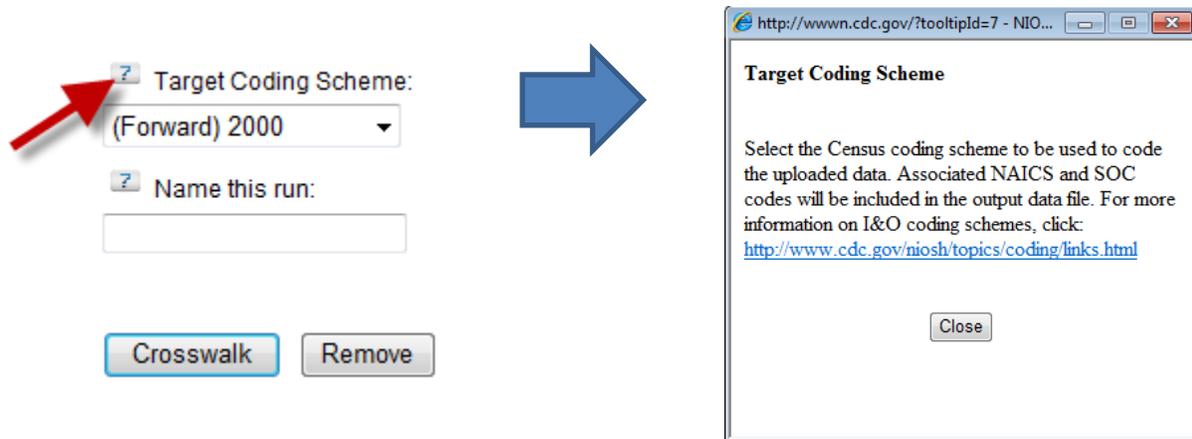
« 1 » Records Per Page: 30 Click Select on a desired row to code or remove the file.

File	Loaded Date	Size (KB)	# Records	Status	Expiration Date
Select crosswalk_Example2_1990_2000.txt	12/7/2012 4:41:50 PM	2	40	Uploaded	2/5/2013 4:41:50 PM
Select crosswalk_Example3_with_errors_1990_2000.txt	12/7/2012 4:37:14 PM	2	0	Upload Error	2/5/2013 4:37:14 PM
Select EHR_CHA data_Occ_only_NIOCCS_ready1_test.txt	12/5/2012 10:39:26 AM	141	4992	Uploaded	2/3/2013 10:39:26 AM
Select MO_2011_IND_OCC_NIOCCS_ready.txt	12/5/2012 10:35:05 AM	63	1232	Uploaded	2/3/2013 10:35:05 AM
Select IO_Coding_Example1.txt	12/4/2012 5:51:39 PM	2	17	Uploaded	2/2/2013 5:51:39 PM
Select Sue NIOCCS_TestBatchFile.txt	12/4/2012 5:51:15 PM	2	21	Uploaded	2/2/2013 5:51:15 PM
Select I_O coding file beta train.txt	12/4/2012 5:50:40 PM	3	49	Uploaded	2/2/2013 5:50:40 PM

Target Coding Scheme: (Forward) 2000
 Name this run:

Upload File Status screen Options for Crosswalk Files	
Target Coding Scheme:	Select the Census Coding Scheme to be used to crosswalk the input I&O codes.
Name this Run:	Provide a name for the crosswalk submission (Run). This option can be used to identify various submissions of the same file using different crosswalk options.
Crosswalk	Click this button to submit the file to be crosswalked by NIOCCS.
Remove	Click this button to remove (delete) the file from the list of uploaded files.

The user can click on the question marks next to the autocoding options to obtain more information about the options. A pop-up box will appear with a description of the option as shown below.



After entering crosswalk options, click the **Crosswalk** button to submit the file for coding. The **Autocode File Status** screen will appear as show below.

Autocoded File Status

Show All
 Show I/O Files Only
 Show Crosswalk Files Only
 Filter by: None

« < 1 > » Records Per Page: 30
 Refresh List
 Check Autocoding Progress
 Click Select on a desired row to review and manage the file.

Run Name	File Name	Census Coding Scheme	Confidence Level	Total # Records	# Ind Coded	# Occ Coded	Expiration Date	Status
Select Example2_1990-2000	crosswalk_Example2_1990_2000.txt	2000	N/A	40	0	0	2/5/2013 12:00:00 AM	Autocode Running
Select Example1_2002_high	IO_Coding_Example1.txt	2002	HIGH	17	17	17	2/3/2013 12:00:00 AM	Autocode Done
Select EHR_CHA_2000_high	EHR_CHA_data_Occ_only_NIOCCS_ready1_test.txt	2000	HIGH	4992	614	2827	2/3/2013 12:00:00 AM	Autocode Done
Select MO_2002_high	MO_2011_IND_OCC_NIOCCS_ready.txt	2002	HIGH	1232	861	930	2/3/2013 12:00:00 AM	Autocode Done

NOTE: See Chapter 6.5 Autocoding File Status screen, for information on how to check and monitor the status of a job submitted for coding.

A job submitted for crosswalk coding can be cancelled if the **Status** equals “Autocode Running” or “Autocode Pending”. To cancel a job, click the **Select** link next to the **Run Name** to be canceled. The selected job will be highlighted and options will be displayed on the right side of the screen.

Click the **Cancel Autocode** button to cancel the job.

Autocoded File Status

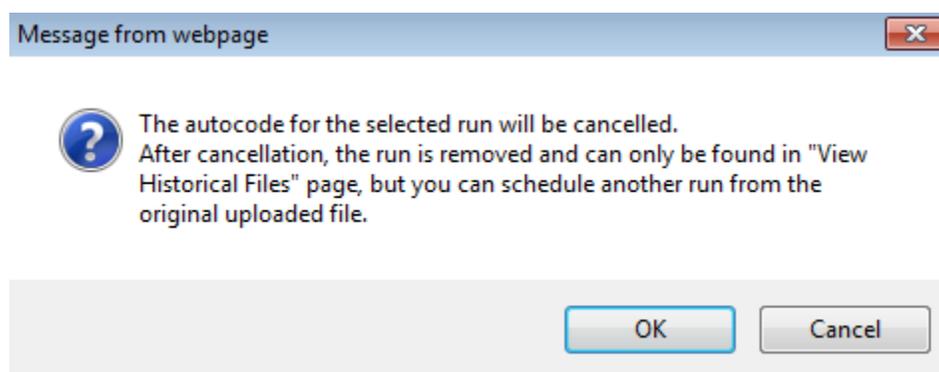
● Show All ● Show I/O Files Only ● Show Crosswalk Files Only Filter by: None

Records Per Page: 30 Refresh List Check Autocoding Progress Click Select on a desired row to review and manage the file.

Run Name	File Name	Census Coding Scheme	Confidence Level	Total # Records	# Ind Coded	# Occ Coded	Expiration Date	Status
Select Example2_crosswalk_1990-2000	crosswalk_Example2_1990_2000.txt	2000	N/A	42	0	0	2/11/2013 12:00:00 AM	Autocode Running
Select Example2_1990-2000	crosswalk_Example2_1990_2000.txt	2000	N/A	40	32	33	2/5/2013 12:00:00 AM	Autocode Done
Select Example1_2002_hinh	IO Coding_Example1.txt	2002	HIGH	17	17	17	2/3/2013 12:00:00 AM	Autocode Done

Review / Edit Records
All Comp-Assisted
Submit
Manage File
Download
Cancel Autocode

A message box will appear as shown below.



To confirm cancelation of the job, click the **OK** button. The job will be cancelled and removed from the **Autocode File Status** screen

If the user does not want to cancel the job, click the **Cancel** button on the message box.

As noted in the message box, the canceled job will be listed in the user’s file history. See *Chapter 9.2 for more information about File History*.

7.4 Computer-assisted Crosswalk Coding

After a file has completed the crosswalk coding process, it is likely that some records could not be automatically coded because an input code crosswalked to multiple target codes. For these types of records a human will need to decide on the most appropriate I&O codes. Records not automatically crosswalked will be flagged as needing 'Computer-assisted Coding'.

7.4.1 Selecting Records to Review/Edit

Records that did not have both the industry and occupation automatically crosswalked are displayed one at a time in the NIOCCS **Computer-assisted Crosswalk Coding** screen so that the user can review and choose the appropriate I&O codes. This process is called computer-assisted coding because NIOCCS provides information and functions to support the coder in determining the correct I&O codes for a given record.

Once the **Status** column displays '**Autocode Done**' on the **Autocode File Status** screen, the file is ready to be reviewed and edited. Columns on the status screen for each file indicate the number of records where the industry and occupation text were automatically crosswalked. A record may have only the industry or only the occupation crosswalked automatically so these totals may not be equal.

NIOCCS provides several options for reviewing and editing the results of the crosswalk process. To view these options, click the **Select** link next to the file to be reviewed/edited from the **Autocoded File Status** screen as shown in the example below.

Autocoded File Status

● Show All ● Show I/O Files Only ● Show Crosswalk Files Only Filter by: None

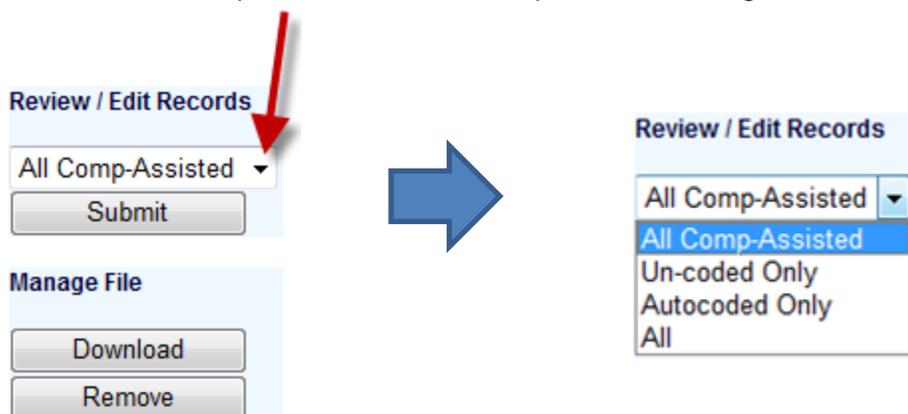
« < 1 > » Records Per Page: 30 Refresh List Check Autocoding Progress Click [Select](#) on a desired row to review and manage the file.

	Run Name	File Name	Census Coding Scheme	Confidence Level	Total # Records	# Ind Coded	# Occ Coded	Expiration Date	Status
Select	Example2_1990-2000	crosswalk_Example2_1990_2000.txt	2000	N/A	40	33	32	2/5/2013 12:00:00 AM	Autocode Done
Select	Example1_2002_high	IO_Coding_Example1.txt	2002	HIGH	17	17	17	2/3/2013 12:00:00 AM	Autocode Done
Select	EHR_CHA_2000_high	EHR_CHA_data_Occ_only_NIOCCS_ready1_test.txt	2000	HIGH	4992	614	2827	2/3/2013 12:00:00 AM	Autocode Done
Select	MO_2002_high	MO_2011_IND_OCC_NIOCCS_ready.txt	2002	HIGH	1232	861	930	2/3/2013 12:00:00 AM	Autocode Done
Select	Example1_2002_high	IO_Coding_Example1.txt	2002	HIGH	17	17	17	2/3/2013 12:00:00 AM	Autocode Done

Review / Edit Records
All Comp-Assisted ▾
Submit

Manage File
Download
Remove

The selected file will be highlighted and user options will be displayed on the right side of the screen. Click the **Review/Edit** drop down arrow to view options for filtering records for review/edit.



Crosswalk Computer-assisted Review/Edit options	
All Comp-Assisted	<p>Displays records that did not have both industry and occupation <i>automatically crosswalked</i> by NIOCCS, that is, records that were flagged as needing computer-assisted coding.</p> <p>This option will display records that were flagged for computer-assisted coding regardless if I&O codes have been assigned by the user in previous computer-assisted sessions.</p>
Un-coded Only	<p>Displays records that have not been assigned I&O codes yet.</p> <p>Initially, this group of records will equal the All Comp-Assisted group.</p> <p>This option is used when the user is working on a file that may take more than one NIOCCS session to complete the computer-assisted crosswalk coding. If a user has assigned some codes in previous NIOCCS Computer-assisted sessions and starts a new session to work on the remaining records, this option allows the user to focus on only records that still do not have codes assigned.</p>
Autocoded Only	<p>Displays records that were automatically crosswalked by NIOCCS.</p>
All	<p>Displays all records in the file whether automatically crosswalked, computer-assisted crosswalked, or not yet crosswalked.</p>

7.4.2 Computer-assisted Crosswalk Coding screen

This screen displays records one at a time allowing the user to select the correct crosswalk codes for the input industry and occupation codes.

The **Computer-assisted Crosswalk Coding** screen consists of 4 primary sections:

1. File Information and Navigation
2. Industry and Occupation Input Codes to be crosswalked
3. Crosswalk Results
4. Industry and Occupation Codes Selected / Accepted

NIOSH Industry and Occupation Computerized Coding System (NIOCCS)

NIOSH Home

NIOSH > NIOCCS HOME

Coding Account Help currently logged on as sxn1@cdc.gov Logout

Assisted Crosswalk Coding

Input Industry Title: AUTOMOTIVE Input Occupation Title: INSPECTOR #2

Input Industry Code: 751 Input Occupation Code: 036

Search Again Reset Codes

Crosswalk Results: #3

1 Ind Matches

Code	Title	NAICS
Select 877	AUTOMOTIVE REPAIR AND MAINTENANCE	81111

« < 1 > »

3 Occ Matches

Code	Title	SOC
Select 056	COMPLIANCE OFFICERS, EXCEPT AGRICULTURE, CONSTRUCTION, HEALTH, SAFETY, AND TRANSPORTATION	13-1041
Select 093	TAX EXAMINERS, COLLECTORS, AND REVENUE AGENTS	13-2081
Select 941	TRANSPORTATION INSPECTORS	53-6051

« < 1 > »

Close File

Source Scheme: CENSUS 1990 #1

Target Scheme: CENSUS 2000

File: Example2_1990-2000

Record Id: 3167826

Review / Edit Records

All Comp-Assisted

Submit

<-Prev Next->

First Last

View All

Record 3 of 14

Ind Code: 877

Accept Reset

Insufficient Info #4

Occ Code:

Accept Reset

Insufficient Info

Add Notes Refresh Notes

7.4.2.1 Section #1. File Information and Navigation

This section of the Crosswalk Computer-assisted coding screen provides navigation tools and information about the file being coded.

Close File

Source Scheme:
CENSUS 1990

Target Scheme: #1
CENSUS 2000

File:
Example2_1990-2000

Record Id:
3167826

Review / Edit Records

All Comp-Assisted ▾

Submit

<-Prev Next->

First Last

View All

Record 3 of 14

Close File button will return the user to the Autocoded File Status screen.

Source Scheme, Target Scheme, File, Record ID fields provide information about the file being coded and the crosswalk options chosen.

The **Review/Edit** drop down is provided again so that the user can refilter the records to review if desired.

The **Prev, Next, First, Last** buttons provide navigation tools to go to the previous, next, first, or last record in the file being reviewed.

The **View All** button allows the user to view the records in the file in a table format rather than one record at a time (*see Chapter 7.4.3 and Chapter 8. for more information on View All*).

Record x of x lets the user know which record they are currently viewing among all the records in the filtered set of records.

7.4.2.2 Section #2. Industry and Occupation Input Codes to be Crosswalked

The primary purpose of this section is to display the industry and occupation input codes to be crosswalked. This section can also be used to enter different industry or occupation codes and ask NIOCCS to crosswalk the newly entered codes.

Input Industry Title: AUTOMOTIVE

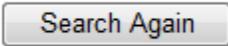
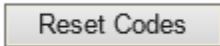
Input Occupation Title: INSPECTOR #2

Input Industry Code: 751

Input Occupation Code: 036

Search Again Reset Codes

The industry and occupation input text will appear in the **Input Industry Title** and **Input Occupation Title** boxes if they were submitted in the uploaded file. These titles are only used to help the user select the correct crosswalk code if multiple codes are presented. I&O titles are NOT used in the crosswalk process and can NOT be altered by the user.

Assisted Crosswalk Coding – Section #2 options	
<p>Search Again</p> <p></p>	<p>If the user wishes to enter a different industry or occupation input code to be crosswalked they can type over the existing input industry code or input occupation code then click Search Again to ask NIOCCS to crosswalk the entered codes.</p> <p>This may be necessary if the original input code isn't a valid code for the input coding scheme.</p> <p><i>See Section #3 example below.</i></p>
<p>Reset Codes</p> <p></p>	<p>If the industry or occupation codes were modified in order to use the Search Again feature, the original industry and occupation input codes can be redisplayed by clicking the Reset Codes button. <i>See Section #3 example below.</i></p>

7.4.2.3 Section #3. Crosswalk Results

This section of the **Computer-assisted Crosswalk Coding** screen displays the target industry and occupation titles and codes that NIOCCS found in the crosswalk for the input codes.

In the example below, NIOCCS found 3 codes in the Census 2000 coding scheme for the input Census 1990 occupation code of **036**.

The screenshot shows a web interface titled "Crosswalk Results: #3". It is divided into two sections: "1 Ind Matches" and "3 Occ Matches".

1 Ind Matches

Code	Title	NAICS
Select 877	AUTOMOTIVE REPAIR AND MAINTENANCE	81111

« < 1 > »

3 Occ Matches

Code	Title	SOC
Select 056	COMPLIANCE OFFICERS, EXCEPT AGRICULTURE, CONSTRUCTION, HEALTH, SAFETY, AND TRANSPORTATION	13-1041
Select 093	TAX EXAMINERS, COLLECTORS, AND REVENUE AGENTS	13-2081
Select 941	TRANSPORTATION INSPECTORS	53-6051

« < 1 > »

Since the record contained the input occupation title of 'Inspector' and the industry is 'Automotive', then it seems the most appropriate Census 2000 occupation code for this record is **941 – Transportation Inspectors**.

Obtaining more Information about I&O Codes

Users can click on the industry or occupation codes in the crosswalk results to get a list of all the Census titles that are associated with that code.

In the example below, the user has clicked on the **941** occupation code to view the list of Census occupation titles from the Census 2000 coding scheme with this code.

Crosswalk Results:

1 Ind Matches

Code	Title	NAICS
Select 877	AUTOMOTIVE REPAIR AND MAINTENANCE	81111

« < 1 > »

3 Occ Matches

Code	Title	SOC
Select 056	COMPLIANCE OFFICERS, EXCEPT AGRICULTURE, CONSTRUCTION, HEALTH, SAFETY, AND TRANSPORTATION	13-1041
Select 093	TAX EXAMINERS, COLLECTORS, AND REVENUE AGENTS	13-2081
Select 941	TRANSPORTATION INSPECTORS	53-6051

« < 1 > »



(Partial list of 941 Census occupation titles)

Category: Transportation Inspectors				
Occ Code	Title	Ind Restriction	Naics Restriction	SOC
941	AIR BRAKE TESTER	(608)	(482)	53-6051
941	CAR EXAMINER	(618)	(485)	53-6051
941	DETECTOR CAR OPERATOR			53-6051
941	DISPATCHER, BUS AND TROLLEY, INSPECTING			53-6051
941	DISPATCHER, RAILROAD, INSPECTING			53-6051
941	ENGINEER, SAFETY	607-629	48	53-6051
941	FREIGHT SERVICE INSPECTOR			53-6051
941	INSPECTOR \ N.S.	607-629	48	53-6051
941	INSPECTOR, AERONAUTICAL	957-959	926-928	53-6051
941	INSPECTOR, AIR BRAKES	608	482	53-6051
941	INSPECTOR, AIRCRAFT LANDING GEAR			53-6051
941	INSPECTOR, AIRPLANE	(607)	(481)	53-6051
941	INSPECTOR, AUTO			53-6051
941	INSPECTOR, BRAKES	(608)	(482)	53-6051
941	INSPECTOR, BUS	618, 628	4851, 4852, 4854-4859, 487	53-6051
941	INSPECTOR, CAR			53-6051
941	INSPECTOR, CAR BODY			53-6051
941	INSPECTOR, CARGO			53-6051
941	INSPECTOR, CONTROLLER			53-6051
941	INSPECTOR, DINING SERVICE			53-6051

NAICS or SOC definitions can also be obtained from the **Crosswalk Results** or from the Census industry or occupation title lists.

In the example below, the user clicked on the SOC code 53-6051 from the Crosswalk results section of the screen which then displays the detailed description for that SOC code.

Crosswalk Results:

1 Ind Matches

	Code	Title	NAICS
Select	877	AUTOMOTIVE REPAIR AND MAINTENANCE	81111

« < 1 > »

3 Occ Matches

	Code	Title	SOC
Select	056	COMPLIANCE OFFICERS, EXCEPT AGRICULTURE, CONSTRUCTION, HEALTH, SAFETY, AND TRANSPORTATION	13-1041
Select	093	TAX EXAMINERS, COLLECTORS, AND REVENUE AGENTS	13-2081
Select	941	TRANSPORTATION INSPECTORS	53-6051



Code: 53-6051

Title: TRANSPORTATION INSPECTORS

Publish Year: 2000

Description:

INSPECT EQUIPMENT OR GOODS IN CONNECTION WITH THE SAFE TRANSPORT OF CARGO OR PEOPLE. INCLUDE RAIL TRANSPORT INSPECTORS, SUCH AS FREIGHT INSPECTORS, CAR INSPECTORS, RAIL INSPECTORS, AND OTHER NONPRECISION INSPECTORS OF OTHER TYPES OF TRANSPORTATION VEHICLES.

If NIOCCS does not find any crosswalk codes for the input industry or occupation codes, it is because the input code is invalid for that input coding scheme. Users can enter different codes in either the **input industry code** or **input occupation code** fields then click **Search Again** to ask NIOCCS to find crosswalk codes for the reentered codes.

In the example below, NIOCCS did not find any crosswalk codes for input industry code '10'. This is because industry code '10' in the 1990 Census coding scheme is invalid.

Assisted Crosswalk Coding

Close File

Source Scheme: CENSUS 1990

Target Scheme: CENSUS 2000

File: Example2_1990-2000

Record Id: 3170351

Review / Edit Records

All Comp-Assisted ▾

Submit

<-Prev Next->

First Last

View All

Record 6 of 14

Ind Code:

Accept Reset

Insufficient Info

Occ Code:

Accept Reset

Insufficient Info

Add Notes Refresh Notes

Input Industry Title: AGRICULTURE BUSINESS

Input Occupation Title: SUPPLY CLERK-FOSTER FARMS

Input Industry Code: 10

Input Occupation Code: 365

Search Again Reset Codes

Crosswalk Results:

0 Ind Matches

Code	Title	SOC
Select 515	PROCUREMENT CLERKS	43-3061
Select 562	STOCK CLERKS AND ORDER FILLERS	43-5081

« < > »

« < 1 > »

By entering the valid value of '100' in the **input industry code** field then clicking **Search Again** button, NIOCCS will crosswalk the information again and provide new results as shown below.

Assisted Crosswalk Coding

Close File

Source Scheme:
CENSUS 1990

Target Scheme:
CENSUS 2000

File:
Example2_1990-2000

Record Id:
3170351

Review / Edit Records

All Comp-Assisted ▾

Submit

< Prev Next >

First Last

View All

Record 6 of 14

Ind Code:

Accept Reset

Insufficient Info

Occ Code:

Accept Reset

Insufficient Info

Add Notes Refresh Notes

Input Industry Title: AGRICULTURE BUSINESS

Input Occupation Title: SUPPLY CLERK-FOSTER FARMS

Input Industry Code: 100

Input Occupation Code: 365

Search Again Reset Codes

Crosswalk Results:

1 Ind Matches

Code	Title	NAICS
Select 118	ANIMAL SLAUGHTERING AND PROCESSING	3116

« < 1 > »

2 Occ Matches

Code	Title	SOC
Select 515	PROCUREMENT CLERKS	43-3061
Select 562	STOCK CLERKS AND ORDER FILLERS	43-5081

This technique of entering a different input code for either industry or occupation may also be used if the input code is known to be incorrect. That is, it may be a valid code but it is not the correct code for the input text. If the user looks up the correct code, it can be entered then use the **Search Again** button to find the corresponding crosswalk code.

The original input code is not lost by entering other code in the input industry or occupation code fields, it is always stored in the database as originally uploaded.

Users can return to the original input codes by clicking the **Reset Codes** button. The original codes will also be redisplayed if the user moves to another record in the file then returns to this record again.

7.4.2.4 Section #4. Industry and Occupation Codes Selected /Accepted

NIOCCS will automatically place a code in the industry or occupation code selection box if there is only one target crosswalk code for the input code. Users must make a selection for the appropriate crosswalk code where the input code crosswalks to more than one target code.

The **Accept** button is used when a code is entered by the user into the **Ind Code** or **Occ Code** boxes. This means the user has confirmed the code entered as the 'accepted' code for the record. Once the **Accept** button is clicked, the code will be highlighted in green.

The **Reset** button will clear a code from the **Ind Code** or **Occ Code** box.

The **Insufficient Info** button is used to indicate that insufficient information is available to be able to crosswalk the input code. Clicking this button will place '999' in the code box and it will be highlighted green (accepted) automatically.

The **Add Notes** link will open a pop-up box to enter remarks about the record being crosswalked.

The screenshot shows a web form with two main sections: 'Ind Code' and 'Occ Code'. The 'Ind Code' section has a text input field containing '877', which is highlighted in green. Below this field are three buttons: 'Accept', 'Reset', and 'Insufficient Info'. The 'Occ Code' section has an empty text input field, also with 'Accept', 'Reset', and 'Insufficient Info' buttons below it. To the right of the 'Occ Code' section, there is a red '#4'. At the bottom of the form, there are two buttons: 'Add Notes' and 'Refresh Notes'.

The screenshot shows a pop-up dialog box titled 'Coding Notes - Windows Internet Explorer'. The address bar shows the URL 'http://www.cdc.gov/niosh-nioccs/CodingNotes.aspx?batchDataId=3197477'. The main content area has a text input field containing the text 'Need verification of selected crosswalk Occ code.' Below the text field is a 'Save' button. At the bottom of the dialog, there is a 'Close Window' link.

The **Refresh Notes** button will refresh the notes box on the screen to ensure all notes are visible.



The screenshot shows the 'Add Notes' dialog box after clicking the 'Refresh Notes' button. The dialog has a title bar 'Coding Notes - Windows Internet Explorer' and a URL 'http://www.cdc.gov/niosh-nioccs/CodingNotes.aspx?batchDataId=3197477'. The main area contains a text input field with the text '12/11/2012 9:56:00 AM Need verification of selected crosswalk Occ code.' Below the text field is a 'Save' button. At the bottom of the dialog, there is a 'Close Window' link.

7.4.3 How to Assign Crosswalk Codes

An industry or occupation code can be assigned in one of three ways for crosswalk coding:

- 1) By clicking the **Select** link next to the code in the **Ind Matches** and/or **Occ Matches** boxes of the **Crosswalk Results**.

Input Industry Title: LUMBER YARD
Input Occupation Title: CLERK
Input Industry Code: 580
Input Occupation Code: 379
Search Again Reset Codes

Crosswalk Results:

1 Ind Matches

	Code	Title	NAICS
Select	487	BUILDING MATERIAL AND SUPPLIES DEALERS	4441

« < 1 > »

2 Occ Matches

	Code	Title	SOC
Select	540	RECEPTIONISTS AND INFORMATION CLERKS	43-4171
Select	586	OFFICE CLERKS, GENERAL	43-9061

« < 1 > »

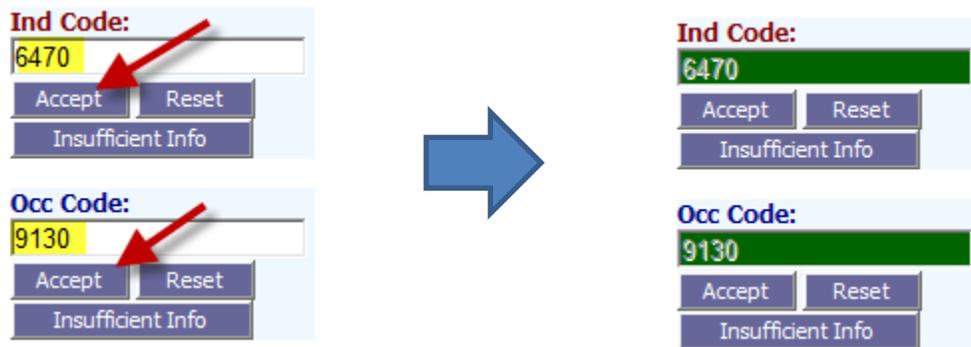


Once the **Select** link is clicked, the code will be placed in the **Ind Code** and/or **Occ Code** boxes in the Select/Accept section of the screen on the right side. The box(es) will be highlighted green automatically indicating the code(s) are considered accepted as the correct crosswalk code(s) for the record.

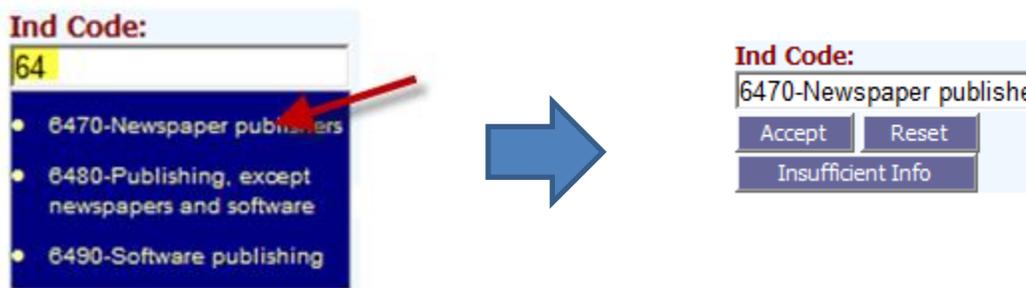
Ind Code:
487
Accept Reset
Insufficient Info

Occ Code:
586
Accept Reset
Insufficient Info

-
- 2) By entering a code directly into the **Ind Code** or the **Occ Code** boxes then clicking the **Accept** button. Once the **Accept** button is clicked, the code will be highlighted in green.



As a code is typed into either box, NIOCCS will help the user by displaying codes and titles in a drop down list. The user can click the code/title in the drop down if desired instead of completing the typing of the code.



Remember to click the **Accept** button after entering/selecting a code using this method to indicate that it is the accepted correct code for the record.

- 3) By using the **View All** feature of the Computer-assisted Crosswalk Coding screen to code more than one record at a time.

The **View All** feature will display the records of the file in a table (or spreadsheet) type format.

Close File

Source Scheme:
CENSUS 1990

Target Scheme:
CENSUS 2000

File:
Example2_1990-2000

Record Id:
3170351

Review / Edit Records

All Comp-Assisted ▾

Submit

<-Prev Next->

First Last

View All

Record 6 of 14



View All Crosswalk Records

Click one of the Record ID values to return to the Computer-Assisted coding screen.

« 1 2 » Records Per Page: 20 Find Ind title ▾ beginn ▾ Find Sort by: Order in Original ▾ A to Z (Ascendir) ▾

<input type="checkbox"/> Record ID	Input Ind Code	Input Occ Code	Output Ind Code	Ind Auto-coded?	Output Occ Code	Occ Auto-coded?	Industry Title	Occupation Title
<input type="checkbox"/> 611129	227	999			990	Y	DOUGLAS AIRCRAFT	NR
<input type="checkbox"/> 1586149	810	999			990	Y	DISNEYLAND	NR
<input type="checkbox"/> 406457	010	473	017	Y	021	Y	AVOCADO FARMER	RANCHER
<input type="checkbox"/> 407381	010	473	017	Y	021	Y	FARMING	FARMER
<input type="checkbox"/> 2712435	010	999	017	Y	990	Y	FARMING & MINING	NR
<input type="checkbox"/> 184623	011	473	018	Y	021	Y	AGRICULTURE	DAIRY FARMER
<input type="checkbox"/> 188087	011	473	018	Y	021	Y		CHICKEN FARMER
<input type="checkbox"/> 193303	011	473	018	Y	021	Y	RANCHER	
<input type="checkbox"/> 253055	011	473	018	Y	021	Y	CATTLE RANCHING	CATTLE RANCHER
<input type="checkbox"/> 2873324	042	075	037	Y	174	Y	GEOLOGY	GEOLOGIST
<input type="checkbox"/> 3255447	042	075	037	Y	174	Y	OIL	GEOLOGIST
<input type="checkbox"/> 2263962	042	585	037	Y	644	Y	PETROLEUM	PIPEFITTER
<input type="checkbox"/> 304111	060	558	077	Y	620	Y	BUILDING CONSTRUCTION	CONTRACTOR
<input type="checkbox"/> 321950	060	558	077	Y	620	Y	CONSTRUCTION	HOME BUILDER-CONTRACTOR
<input type="checkbox"/> 356668	060	558	077	Y	620	Y	BUILDING	CONTRACTOR
<input type="checkbox"/> 2819309	841	178	727	Y	210	Y	ATTORNEY	RETIRED-ATTORNEY
<input type="checkbox"/> 2874954	841	178	727	Y	210	Y	LAW	ATTORNEY
<input type="checkbox"/> 3167323	832	447	827	Y	360	Y	HOPE MANOR	NURSE AID
<input type="checkbox"/> 3167826	751	036	877	Y			AUTOMOTIVE	INSPECTOR
<input type="checkbox"/> 3169215	990	379	999	Y			OFFICE WORKER	OFFICE WORKER

Refresh List

Close File

All

Source Scheme:
CENSUS 1990

Target Scheme:
CENSUS 2000

File:
c2

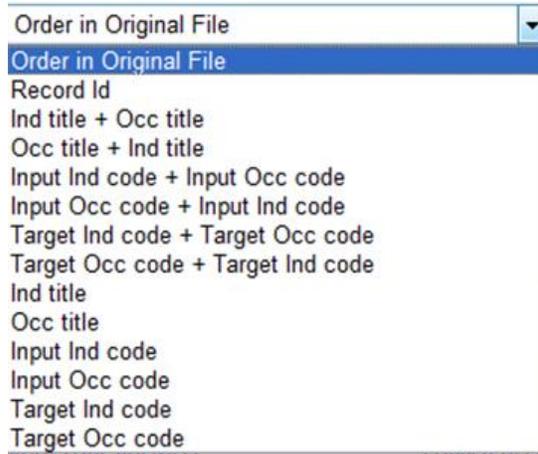
Ind Code:
Leave it blank if no change

Occ Code:
Leave it blank if no change

Save

Total Selected:
0

Using the **View All** computer-assisted coding feature, the file can be sorted in various ways. This can be helpful in reviewing similar input industries or occupations. The sorting options for the Crosswalk **View All** screen include:



In the example below, the file has been sorted by **Input Occ Code** and shows four records with input occupation code of '379'. If the user decides these records should all be assigned the same target occupation code, they can be coded all at the same time (also known as 'bulk coding') using the **View All** screen.

View All Crosswalk Records

Click one of the Record ID values to return to the Computer-Assisted coding screen.

« < 1 > » Records Per Page: 30 Sort by: Input Occ code A to Z (Ascending) Refresh List

Record ID	Input Ind Code	Input Occ Code	Output Ind Code	Output Occ Code	Industry Title	Occupation Title
3167826	751	036	877		AUTOMOTIVE	INSPECTOR
3169810	812	084	306		HEALTH CARE	PSYCHIATRIST
3171023	741	259	485		COUR REPORTING AGENCY	ACCOUNT EXECUTIVE
3170351	100	365	118		AGRICULTURE BUSINESS	SUPPLY CLERK-FOSTER FARMS
3169215	990	379	999		OFFICE WORKER	OFFICE WORKER
999426	580	379	487		LUMBER YARD	CLERK
999426	171	379	647		NEWSPAPER PUBLISHING	OFFICE CLERK
999426	410	379			TRUCKING	CLERK
3211333	030	479	029		FARMING	PEST CONTROL INSPECTOR
426519	700	741	687		BANK	APPRAISER
317144	231	889			LUMBER	LABORER
650700	231	913	906		PLYWOOD MILL	RETIRED
611129	227	999	990		DOUGLAS AIRCRAFT	NR
1586149	810	999	990		DISNEYLAND	NR
818665	641	999	990		NR	RESTAURANT WORKER
ID	Ind code	Occ code			IND TEXT	OCC TEXT

Close File

All Comp-Assisted

Source Scheme: CENSUS 1990

Target Scheme: CENSUS 2000

File: Example2_Crosswalk_1990-2000

Ind Code:
Leave it blank if no change

Occ Code:
Leave it blank if no change

Save

Total Selected: 0

« < 1 > »

The user must first know what the correct Census 2000 occupation code (target code) is for '379' Census 1990 occupation code. The NIOCCS single record crosswalk screen could be used to look up the correct code as shown below. **NOTE:** An additional, not logged on, NIOCCS session could be opened in the user's browser to do this lookup.

Crosswalk Single Record Coding

Input I&O Coding Scheme: 1990
 Target I&O Coding Scheme: (Forward) 2000

Input Industry Code: Input Occupation Code:

Crosswalk Results:

Industry:	Code	Standard Title	NAICS
Occupation:	Code	Standard Title	SOC
	540	RECEPTIONISTS AND INFORMATION CLERKS	43-4171
	586	OFFICE CLERKS, GENERAL	43-9061

On the **View All** screen, click each of the check boxes next to the records having 379 as the **Input Occ Code**. Notice that the **Total Selected** is 4 records (under the Save button). Next, enter the Census 2000 target occupation code in the **Occ Code** box on the right side of the screen, then click the **Save** button.

View All Crosswalk Records

Click one of the Record ID values to return to the Computer-Assisted coding screen.

« < 1 > » Records Per Page: 30 Sort by: Source Occ code A to Z (Ascending) Refresh List

<input type="checkbox"/>	Record ID	Input Ind Code	Input Occ Code	Output Ind Code	Output Occ Code	Industry Title	Occupation Title
<input type="checkbox"/>	3167826	751	036	877		AUTOMOTIVE	INSPECTOR
<input type="checkbox"/>	3169810	812	084	306		HEALTH CARE	PSYCHIATRIST
<input type="checkbox"/>	3171023	741	259	485		COUR REPORTING AGENCY	ACCOUNT EXECUTIVE
<input type="checkbox"/>	3170351	100	365	118		AGRICULTURE BUSINESS	SUPPLY CLERK-FOSTER FARMS
<input checked="" type="checkbox"/>	3169215	990	379	999		OFFICE WORKER	OFFICE WORKER
<input checked="" type="checkbox"/>	999426	580	379	487		LUMBER YARD	CLERK
<input checked="" type="checkbox"/>	999426	171	379	647		NEWSPAPER PUBLISHING	OFFICE CLERK
<input checked="" type="checkbox"/>	999426	410	379			TRUCKING	CLERK
<input type="checkbox"/>	3211333	030	479	029		FARMING	PEST CONTROL INSPECTOR
<input type="checkbox"/>	426519	700	741	687		BANK	APPRAISER
<input type="checkbox"/>	317144	231	889			LUMBER	LABORER
<input type="checkbox"/>	650700	231	913	906		PLYWOOD MILL	RETIRED
<input type="checkbox"/>	611129	227	999	990		DOUGLAS AIRCRAFT	NR
<input type="checkbox"/>	1586149	810	999	990		DISNEYLAND	NR
<input type="checkbox"/>	818665	641	999	990		NR	RESTAURANT WORKER

Close File

All Comp-Assisted

Source Scheme: CENSUS 1990

Target Scheme: CENSUS 2000

File: Example2_crosswalk_1990-2000

Ind Code:

Occ Code: **586-Office Clerks, General**

Total Selected: **4**

The result of the 'bulk coding' is shown below. All four records have now been crosswalked from input occ code of 379 to target occ code of 586.

View All Crosswalk Records

Click one of the Record ID values to return to the Computer-Assisted coding screen.

« < 1 > » Records Per Page: 30 Sort by: Source Occ code A to Z (Ascending) Refresh List

Record ID	Input Ind Code	Input Occ Code	Output Ind Code	Output Occ Code	Industry Title	Occupation Title
3167826	751	036	877		AUTOMOTIVE	INSPECTOR
3169810	812	084		306	HEALTH CARE	PSYCHIATRIST
3171023	741	259		485	COUR REPORTING AGENCY	ACCOUNT EXECUTIVE
3170351	100	365	118		AGRICULTURE BUSINESS	SUPPLY CLERK-FOSTER FARMS
3169215	990	379	999	586	OFFICE WORKER	OFFICE WORKER
999426	580	379	487	586	LUMBER YARD	CLERK
999426	171	379	647	586	NEWSPAPER PUBLISHING	OFFICE CLERK
999426	410	379		586	TRUCKING	CLERK
3211333	030	479	029		FARMING	PEST CONTROL INSPECTOR
426519	700	741	687		BANK	APPRAISER
317144	231	889			LUMBER	LABORER
650700	231	913		906	PLYWOOD MILL	RETIRED

All Comp-Assisted

Source Scheme: CENSUS 1990

Target Scheme: CENSUS 2000

File: Example2_crosswalk_1990-2000

Ind Code:
Leave it blank if no change

Occ Code:
Leave it blank if no change

Save

Total Selected: 0

To return to the Computer-assisted Crosswalk Coding screen (one record at a time coding), click on one of the Record ID values and the user will be returned to that record.

Record ID	Input Ind Code	Input Occ Code	Output Ind Code	Output Occ Code	Industry Title	Occupation Title
3167826	751	036	877		AUTOMOTIVE	INSPECTOR
3169810	812	084		306	HEALTH CARE	PSYCHIATRIST
3171023	741	259		485	COUR REPORTING AGENCY	ACCOUNT EXECUTIVE
3170351	100	365	118		AGRICULTURE BUSINESS	SUPPLY CLERK-FOSTER FARMS
3169215	990	379	999	586	OFFICE WORKER	OFFICE WORKER

7.5 Downloading Crosswalk Coded Files

A file can be downloaded at any time after the crosswalk process has completed, even if all manual coding is not complete. In the example below, the user has completed coding all 42 records in the 'Example2_crosswalk_1990-2000' file and is ready to download the results.

To download a file, click the **Select** link next to the file to be downloaded, then click the **Download** button on the right side of the screen.

NIOSH Industry and Occupation Computerized Coding System (NIOCCS)

NIOSH Home

NIOSH > NIOCCS HOME

Coding Account Help currently logged on as sxn1@cdc.gov Logoff

Autocoded File Status

Show All Show I/O Files Only Show Crosswalk Files Only Filter by: None

Records Per Page: 30 Refresh List Check Autocoding Progress Click [Select](#) on a desired row to review and manage the file.

Run Name	File Name	Census Coding Scheme	Confidence Level	Total # Records	# Ind Coded	# Occ Coded	Expiration Date	Status
Select Example2_crosswalk_1990-2000	crosswalk_Example2_1990_2000.txt	2000	N/A	42	42	42	2/8/2013 12:00:00 AM	Autocode Done
Select Example2_1990-2000	crosswalk_Example2_1990_2000.txt	2000	N/A	40	32	33	2/5/2013 12:00:00	Autocode Done

Review / Edit Records

All Comp-Assisted Submit

Manage File Download Remove

A pop-up box will be displayed for the user to enter/select download options.

Download file formats options include:

- Plain Text
- MS Excel

By default, NAICS and SOC codes will be included in the output file, however these can be suppressed by clicking the check boxes next to these options.

After download options are selected, click the **Save** button to download.

http://www.cdc.gov/?fileId=1139&batchId=-2&cr...

Choose a file format: Plain Text

Choose a data field delimiter: Tab

Include NAICS code?

Include SOC code?

Save

[Close Window](#)

Trusted sites | Protected Mode: Off 100%

The example downloaded crosswalk file is displayed below in Excel:

	A	B	C	D	E	F	G	H	I	J	K	L
1	File Name:	crosswalk_Example2_1990_2000.txt										
2	Source Scheme:	CENSUS 1990										
3	Target Scheme:	CENSUS 2000										
4	Confidence Level:	N/A										
5	ID	Industry Title	Occupation Title	Input Ind code	Input Occ Code	Output Ind code	Ind Auto-coded?	Output Occ Code	Occ Auto-coded	Coding Notes	NAICS Code	SOC Code
6	3210927	EDUCATION	TEACHER	842	156	786	Y	231	Y		611110	25-2021
7	3170351	AGRICULTURE BUSINE	SUPPLY CLERK-FOS	100	365	118	Y	562	N		3116	43-5081
8	3167826	AUTOMOTIVE	INSPECTOR	751	036	877	Y	941	N		81111	53-6051
9	2873324	GEOLOGY	GEOLOGIST	042	075	037	Y	174	Y		21111	19-2041
10	3255447	OIL	GEOLOGIST	042	075	037	Y	174	Y		21111	19-2041
11	3169810	HEALTH CARE	PSYCHIATRIST	812	084	797	N	306	Y		62111	29-1061
12	995757	POMONA UNIF SCHO	TEACHER	842	156	786	Y	231	Y		611110	25-2021
13	999096	EDUCATION	TEACHER	842	156	786	Y	231	Y		611110	25-2021
14	2819309	ATTORNEY	RETIRED-ATTORNE	841	178	727	Y	210	Y		541110	23-1011
15	2874954	LAW	ATTORNEY	841	178	727	Y	210	Y		541110	23-1011
16	3171023	COUR REPORTING AG	ACCOUNT EXECUTI	741	259	778	N	485	Y		561110	41-4011
17	3169215	OFFICE WORKER	OFFICE WORKER	990	379	999	Y	586	N			43-9061
18	999426	LUMBER YARD	CLERK	580	379	487	Y	586	N		4441	43-9061
19	999426	NEWSPAPER PUBLISH	OFFICE CLERK	171	379	647	Y	586	N		511110	43-9061
20	999426	TRUCKING	CLERK	410	379	617	N	586	N		484	43-9061

The output file from NIOCCS will contain all the data that was originally uploaded plus the following additional information:

Fields in the Output File produced by NIOCCS for Crosswalk Coding	
File Name	Name of the original file uploaded.
Source Scheme	The Census I&O Classification scheme used for the input industry and occupation codes.
Target Scheme	The Census I&O Classification scheme chosen for the target (output) industry and occupation codes.
Confidence Level	The Confidence Level is non-applicable for crosswalk runs.
Output Ind Code	The result of the crosswalked industry code.
Ind Auto-coded?	<p>Flag indicating how the industry code was selected:</p> <p>Y = The code was crosswalked automatically by NIOCCS.</p> <p>N = The code was crosswalked manually using the computer-assisted coding module</p> <p>Blank = No code was assigned, that is, the industry was not automatically crosswalked nor was it manually crosswalked.</p>

Fields in the Output File produced by NIOCCS for Crosswalk Coding	
Output Occ Code	The result of the crosswalked occupation code.
Occ Auto-coded?	<p>Flag indicating how the occupation code was selected:</p> <p>Y = The code was crosswalked automatically by NIOCCS.</p> <p>N = The code was crosswalked manually using the computer-assisted coding module</p> <p>Blank = No code was assigned, that is, the occupation was not automatically crosswalked nor was it manually crosswalked.</p>
Coding Notes	Any notes entered using the computer-assisted coding screen will be provided in this field.
NAICS	The NAICS code associated with the output industry code will be included if this option was chosen in the download process.
SOC	The SOC code associated with the output occupation code will be included if this option was chosen in the download process.

8 QUALITY CONTROL

It is up to the user to verify the quality of the coded results of their files. NIOCCS provides the **View All** feature of the computer-assisted screen to support users in verifying the coded results. Sorting the file by various fields or combination of fields after all coding is completed, can identify errors in coding of similar industries or occupations.

NOTE: *This feature is especially helpful for users with little experience coding I&O data.*

NIOSH strongly recommends that users be trained in I&O coding prior to using the NIOCCS system. Using the computer-assisted features of this system will still require trained I&O coders with the knowledge needed to use the system for selecting the appropriate I&O codes.

Following are some examples of how the **View All** feature could be utilized for quality control.

In the example below, the user has sorted the file by **industry title and occupation title**. While scanning the file for common industry titles to verify codes, the user sees that three records with similar industry titles ('ATT' and 'AT-T') were coded to different industry codes ('667' and '668').

View All I/O Records

Click one of the Record ID values to return to the Computer-Assisted coding screen.

Records Per Page: 20 Sort by: Ind title + Occ title A to Z (Ascending) Refresh List

Record ID	Industry Title	Occupation Title	Census Ind Title	Census Occ Title	Ind Code	Occ Code	Notes?
67632	ATT	TELEPHONE INSTALLATION	RADIO AND TELEVISION BROADCASTING AND CABLE	TELEPHONE INSTALLER	667	702	
81335	AT-T	SECRETARY	WIRED TELECOMMUNICATIONS CARRIERS	SECRETARY \ N.S.	668	570	
78515	AT-T	TECH SUPPORT	WIRED TELECOMMUNICATIONS CARRIERS	COMPUTER SUPPORT SPECIALISTS	668	104	
81998	ATT UTILITY	PREMISES TECHNICIAN	UTILITY \ N.S.	JANITORS AND BUILDING CLEANERS	069	422	
61639	ATTENDANT	WALMART	DEPARTMENT STORES	SALES AND RELATED WORKERS, ALL OTHER	538	496	
85637	ATTORNEY AT LAW	DISTRICT JUDGE	JUSTICE, PUBLIC ORDER, AND	JUDGE	947	211	

The user can correct codes from the **View All** screen or they can return to the **I&O Computer-assisted Coding** screen by clicking on the **Record ID** of the record of to be corrected.

If the user chooses to return to the **I&O Computer-assisted Coding** screen to verify and correct one record, then chooses to return to the **View All** screen, the system will return the user to the page they were on prior to viewing the individual record.

To correct a record from the **View All** screen, click the box next the record(s) to be corrected, enter the correct code(s) in the **industry or occupation code boxes** on the right side of the screen, then click the **Save** button as shown below. (See Chapter 6.5.3 for more information on coding with the View All screen).

View All I/O Records

Click one of the Record ID values to return to the Computer-Assisted coding screen.

567 » Records Per Page: 20 Sort by: Ind title + Occ title A to Z (Ascending) Refresh List

Record ID	Industry Title	Occupation Title	Census Ind Title	Census Occ Title	Ind Code	Occ Code	Notes?
<input checked="" type="checkbox"/> 67632	ATT	TELEPHONE INSTALLATION	RADIO AND TELEVISION BROADCASTING AND CABLE	TELEPHONE INSTALLER	667	702	
<input type="checkbox"/> 81335	AT-T	SECRETARY	WIRED TELECOMMUNICATIONS CARRIERS	SECRETARY \ N.S.	668	570	
<input type="checkbox"/> 78515	AT-T	TECH SUPPORT	WIRED TELECOMMUNICATIONS CARRIERS	COMPUTER SUPPORT SPECIALISTS	668	104	
<input type="checkbox"/> 81998	ATT UTILITY	PREMISES TECHNICIAN	UTILITY \ N.S.	JANITORS AND BUILDING CLEANERS	069	422	
<input type="checkbox"/> 61639	ATTENDANT	WALMART	DEPARTMENT STORES	SALES AND RELATED WORKERS, ALL OTHER	538	496	
<input type="checkbox"/> 85637	ATTORNEY AT LAW	DISTRICT JUDGE	JUSTICE, PUBLIC ORDER, AND	JUDGE	047	211	

Close File
Autocode CL: MEDIUM
All Comp-Assisted
Scheme: CENSUS 2000
File: NEW TEST AUTO 01
Ind Code: 668
668-Wired telecommunications carriers
Save
Total Selected: 1

In the next example, the user has sorted the file by **industry code** and **occupation code**. While reviewing the input text entries for 'oddities', the user discovers that NIOCCS coded 'Computer Training' to '0290'. The industry code '0290' is in the agricultural services sector and clearly not the correct industry code for this input industry text.

View All I/O Records

Click one of the Record ID values to return to the Computer-Assisted coding screen.

Records Per Page: 30 Sort by: Ind code + Occ code A to Z (Ascending) Refresh List

<input type="checkbox"/>	Record ID	Industry Title	Occupation Title	Census Ind Title	Census Occ Title	Ind Code	Occ Code	Notes?
<input type="checkbox"/>	2009007636	LOGGING	LOGGER	LOGGING	LOGGER	0270	6130	
<input type="checkbox"/>	2009006094	LOGGING	LOGGER	LOGGING	LOGGER	0270	6130	
<input type="checkbox"/>	2009000016	LOGGING	LOGGER	LOGGING	LOGGER	0270	6130	
<input type="checkbox"/>	2009005290	LOGGING	TRUCK DRIVER	LOGGING	TRUCK DRIVER	0270	9130	
<input type="checkbox"/>	2009002652	FISHERIES	MARINE BIOLOGIST	FISHING, HUNTING, AND TRAPPING	MARINE BIOLOGIST	0280	1610	
<input type="checkbox"/>	2009004783	COMMERCIAL FISHING	FISHERMAN	FISHING, HUNTING, AND TRAPPING	FISHERS AND RELATED FISHING WORKERS	0280	6100	
<input type="checkbox"/>	2009000731	COMMERCIAL FISHING	FISHERMAN	FISHING, HUNTING, AND TRAPPING	FISHERS AND RELATED FISHING WORKERS	0280	6100	
<input type="checkbox"/>	2009007461	COMMERCIAL FISHING	FISHERMAN	FISHING, HUNTING, AND TRAPPING	FISHERS AND RELATED FISHING WORKERS	0280	6100	
<input type="checkbox"/>	2009009148	FISHING	COMMERCIAL FISHERMAN	FISHING, HUNTING, AND TRAPPING	FISHERS AND RELATED FISHING WORKERS	0280	6100	
<input type="checkbox"/>	2009003415	FISHING	COMMERCIAL FISHERMAN	FISHING, HUNTING, AND TRAPPING	FISHERS AND RELATED FISHING WORKERS	0280	6100	
<input type="checkbox"/>	2009005905	FISHING	COMMERCIAL FISHERMAN	FISHING, HUNTING, AND TRAPPING	FISHERS AND RELATED FISHING WORKERS	0280	6100	
<input type="checkbox"/>	2009000643	FISHING	FISHERMAN	FISHING, HUNTING, AND TRAPPING	FISHERS AND RELATED FISHING WORKERS	0280	6100	
<input type="checkbox"/>	2009003259	FISHING	FISHERMAN	FISHING, HUNTING, AND TRAPPING	FISHERS AND RELATED FISHING WORKERS	0280	6100	
<input type="checkbox"/>	2009000206	FISHING	LOBSTERMAN	FISHING, HUNTING, AND TRAPPING	FISHERS AND RELATED FISHING WORKERS	0280	6100	
<input type="checkbox"/>	2009006282	COMPUTER TRAINING	COMPUTER TRAINER	HORSE TRAINING, EXC. RACING	COMPUTER TRAINER	0290	1040	
<input type="checkbox"/>	2009003981	HORSE TRAINING	RIDING INSTRUCTOR	HORSE TRAINING, EXC. RACING	TEACHER, RIDING	0290	2720	
<input type="checkbox"/>	2009000185	FIRE PROTECTION	ASSISTANT FIRE CHIEF	FIRE PROTECTION SERVICE, FOREST	FIRE CHIEF	0290	3720	
<input type="checkbox"/>	2009004048	HORSE SHOING	FARRIER	SUPPORT ACTIVITIES FOR AGRICULTURE AND FORESTRY	FARRIER	0290	4350	

NIOCCS selected the '0290' industry code for this record because the file was autocoded using the MEDIUM confidence level (CL) setting. MEDIUM CL will automatically code text if the confidence of the matched candidate has a 70% chance of being accurate based on the NIOCCS coding engine algorithms.

MEDIUM CL will have a higher percentage of errors than if the file were run with a HIGH CL setting. (See Chapter 5 for more information about autocoding confidence levels and accuracy rates).

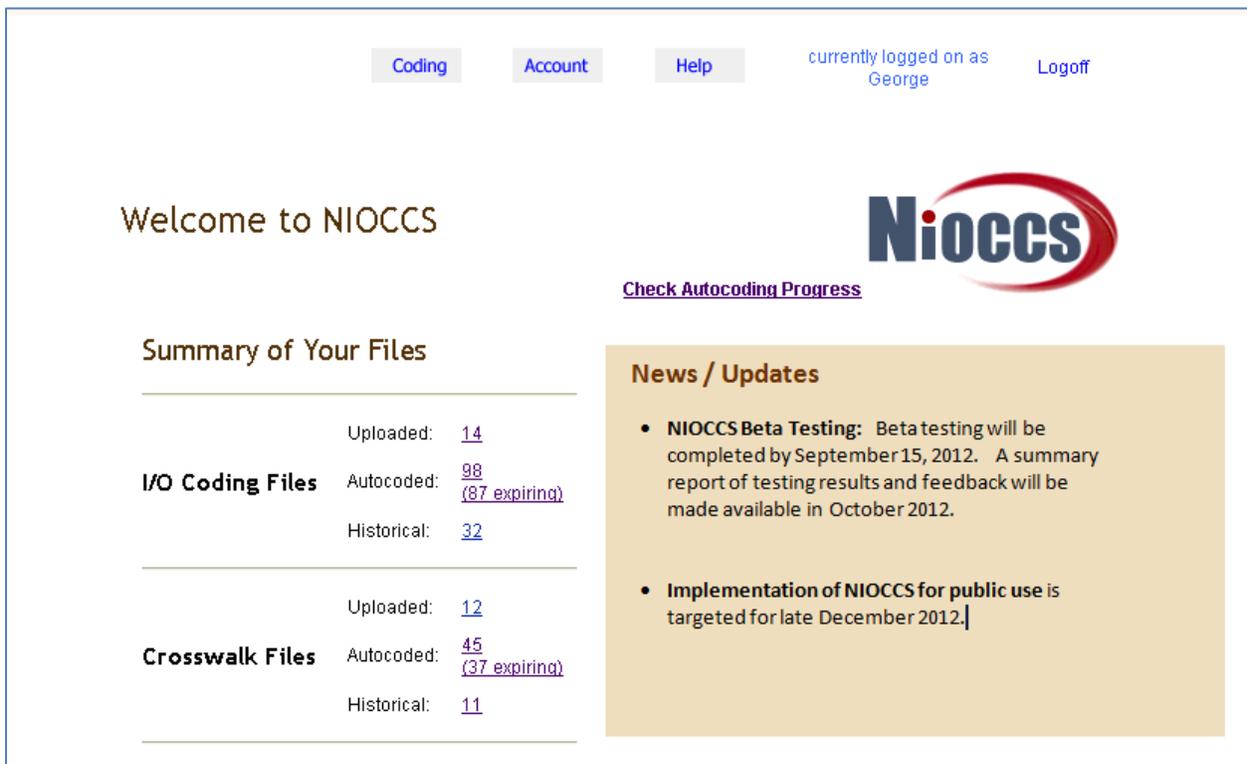
NOTE: If a user discovers that NIOCCS has automatically assigned codes improperly with a HIGH confidence level setting, NIOSH would like to be informed so that adjustments can be made to the system to correct coding problems.

The **Contact Us / Feedback** option under the NIOCCS Help menu can be used to inform NIOSH of autocoding errors or users can submit an email to NIOCCS@cdc.gov.

9 FILE MANAGEMENT

The NIOCCS system will maintain a history of all files uploaded and coded, however, limitations exist for how long files can be stored. Each file has an expiration date. This date lets the user know when a file will be automatically removed (deleted) by the system. It is the responsibility of the user to pay attention to these expiration dates and manage their files accordingly. NIOCCS will mark files as '**expiring**' 7 days prior to the file expiration date.

After logging on, the user can see a summary of their files from the **NIOCCS Home Page**. If the user has files that are near expiration, the number of expiring files will be displayed as shown below.



The screenshot displays the NIOCCS Home Page interface. At the top, there are navigation tabs for 'Coding', 'Account', and 'Help'. On the right, it indicates the user is 'currently logged on as George' with a 'Logoff' link. The main heading is 'Welcome to NIOCCS' with the NIOCCS logo to the right. Below the heading, there is a link to 'Check Autocoding Progress'. The page is divided into two main sections: 'Summary of Your Files' and 'News / Updates'.

Summary of Your Files

File Type	Uploaded	Autocoded	Historical
I/O Coding Files	14	98 (87 expiring)	32
Crosswalk Files	12	45 (37 expiring)	11

News / Updates

- **NIOCCS Beta Testing:** Beta testing will be completed by September 15, 2012. A summary report of testing results and feedback will be made available in October 2012.
- **Implementation of NIOCCS for public use** is targeted for late December 2012.

The user can click on either of the expiring file links (I/O Coding Files or Crosswalk Files) to quickly view the list of the files near expiration.



Autocoded File Status

Show All
 Show I/O Files Only
 Show Crosswalk Files Only
 Filter by: Expiring

<< 1 2 3 >> Records Per Page: 30
Refresh List
Check Autocoding Progress
Click [Select](#) on a desired row to review and manage the file.

	Run Name	File Name	Census Coding Scheme	Confidence Level	Total # Records Coded	# Ind Coded	# Occ Coded	Expiration Date	Status
Select	testjunkinput	SingleRecord_WithJunkAtEnd.txt	2002	HIGH	1	0	1	Expiring 12/3/2012 12:00:00 AM	Autocode Done
Select	qq1	IWSB_Coded_OneLineBad.txt	2002	HIGH	94	85	94	Expiring 12/3/2012 12:00:00 AM	Autocode Done
Select	test3digi6i	IWSB_Coded_OneLineBad.txt	2002	HIGH	94	85	94	Expiring 12/3/2012 12:00:00 AM	Autocode Done
Select	test3digit7	IWSB_Coded_OneLineBad.txt	2002	HIGH	94	85	94	Expiring 12/3/2012 12:00:00 AM	Autocode Done
Select	test3digit3	IWSB_Coded_OneLineBad.txt	2002	HIGH	94	85	94	Expiring 12/3/2012 12:00:00 AM	Autocode Done
Select	test3digit2	IWSB_Coded_OneLineBad.txt	2002	HIGH	94	85	94	Expiring 12/3/2012 12:00:00 AM	Autocode Done
Select	test3digit1	IWSB_Coded_OneLineBad.txt	2002	HIGH	94	85	94	Expiring 12/3/2012 12:00:00 AM	Autocode Done

9.1 File Retention and Removal

Uploaded Files

Uploaded files are retained for 60 days from the day uploaded, after which they will be removed from NIOCCS automatically. The user must upload again if needed.

Users can remove an uploaded file themselves by clicking the **Select** link next to the file to be deleted on the **Upload File Status** screen. The file will be highlighted and options will appear on the right side of the screen. Click the **Remove** button to remove the file, as shown below.

Uploaded File Status

Show All
 Show I/O Files Only
 Show Crosswalk Files Only
 Filter by: None

<< 1 >> Records Per Page: 30
Click [Select](#) on a desired row to code or remove the file.

	File	Loaded Date	Size (KB)	# Records	Status	Expiration Date
Select	crosswalk_Example2_1990_2000.txt	12/10/2012 2:05:38 PM	2	42	Uploaded	2/8/2013 2:05:38 PM
Select	crosswalk_Example2_1990_2000.txt	12/10/2012 11:15:46 AM	2	0	Upload Error	2/8/2013 11:15:46 AM
Select	EHR_CHA data_Occ_only_NIOCCS_ready1_test.txt	12/5/2012 10:39:26 AM	141	4992	Uploaded	2/3/2013 10:39:26 AM
Select	MO_2011_IND_OCC_NIOCCS_ready.txt	12/5/2012 10:35:05 AM	63	1232	Uploaded	2/3/2013 10:35:05 AM
Select	IO_Coding_Example1.txt	12/4/2012 5:51:39 PM	2	17	Uploaded	2/2/2013 5:51:39 PM
Select	Sue NIOCCS_TestBatchFile.txt	12/4/2012 5:51:15 PM	2	21	Uploaded	2/2/2013 5:51:15 PM
Select	I_O coding file beta train.txt	12/4/2012 5:50:40 PM	3	49	Uploaded	2/2/2013 5:50:40 PM

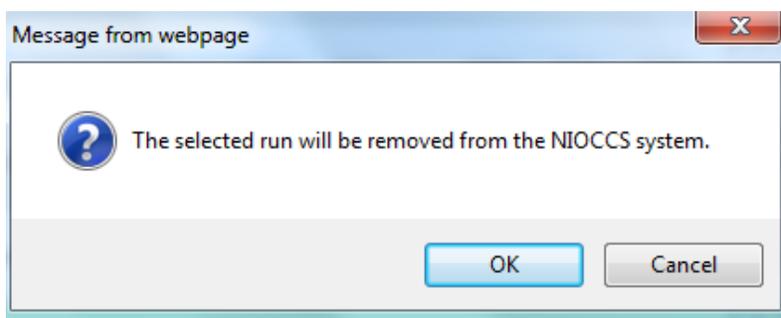
Target Coding Scheme: Census 2002

Autocoding Confidence Level: HIGH

Name this run:

Autocode Remove

After clicking the **Remove** button, a message box will appear allowing the user to confirm removal of the file as shown below. Click **OK** to remove the file. Click **Cancel** to stop the removal action.



Autocoded Files

An uploaded file can be autocoded more than once, for example a user may want to compare the results of autocoding a file using the HIGH CL versus MEDIUM CL. Each autocode results file on the **Autocode File Status** screen will have an expiration date assigned which is 60 days from the day the file was submitted for autocoding.

If an autocoded file is automatically deleted by NIOCCS because it reached its expiration date, the user will have to upload and autocode the file again. Users may contact NIOCCS support if an autocoded file was accidentally removed or automatically deleted before downloading. There is no guarantee that the file will be retrievable but NIOCCS system administrators can verify.

Users can remove autocoded files themselves by clicking the **Select** link next to the file to be deleted on the **Autocode File Status** screen. The file will be highlighted and options will appear on the right side of the screen. Click the **Remove** button to remove the file, as shown below.

Autocoded File Status

Show All
 Show I/O Files Only
 Show Crosswalk Files Only
 Filter by: None

<< 1 >> Records Per Page: 30
 Refresh List
 Check Autocoding Progress
 Click **Select** on a desired row to review and manage the file.

	Run Name	File Name	Census Coding Scheme	Confidence Level	Total # Records	# Ind Coded	# Occ Coded	Expiration Date	Status
Select	Example1_2002_high	IO_Coding_Example1.txt	2002	HIGH	17	17	17	2/3/2013 12:00:00 AM	Autocode Done
Select	EHR_CHA_2000_high	EHR_CHA_data_Occ_only_NIOCCS_ready1_test.txt	2000	HIGH	4992	614	2827	2/3/2013 12:00:00 AM	Autocode Done
Select	MO_2002_high	MO_2011_IND_OCC_NIOCCS_ready.txt	2002	HIGH	1232	861	930	2/3/2013 12:00:00 AM	Autocode Done
Select	Example1_2002_high	IO_Coding_Example1.txt	2002	HIGH	17	17	17	2/3/2013 12:00:00 AM	Autocode Done

Review / Edit Records

All Comp-Assisted ▾

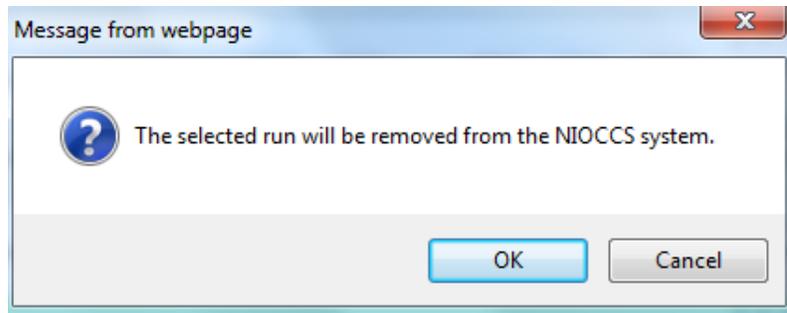
Submit

Manage File

Download

Remove

After clicking the **Remove** button, a message box will appear allowing the user to confirm removal of the file as shown below. Click **OK** to remove the file. Click **Cancel** to stop the removal action.

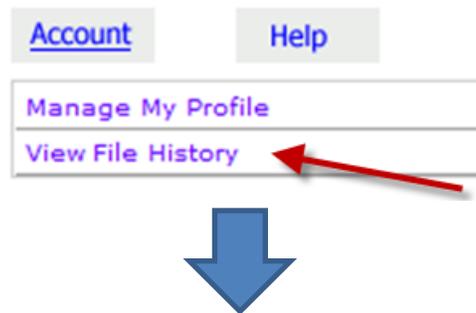


9.2 File History

The **File History** screen allows the user to view a history of previously processed files they have been uploaded, coded, downloaded, removed, expired, or canceled in the NIOCCS system. This file history is informational only; the files themselves are not directly accessible from this screen.

Active files, those that have not expired and still appear on the Upload File Status screen or the Autocode File Status screen, will not appear in the **File History** screen.

To access this screen, hover the cursor on the **Account** menu and select **View File History** from the drop down list.



File History

Show All
 Show I/O Files Only
 Show Crosswalk Files Only
 Filter by: Autocoded Files

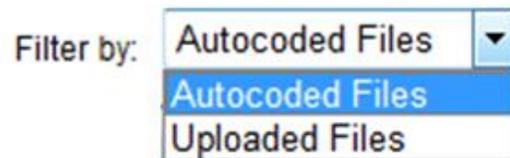
<< 1 2 >> Records Per Page: 30 Refresh List

Run Name	File Name	Census Coding Scheme	Confidence Level	Total # Records	# Ind Coded	# Occ Coded	Date Uploaded	Date Autocoded	Dates Downloaded	Date Removed
newes	CrossWalkBetaFile.txt	2002	N/A	5641	0	0	9/24/2012 5:52:14 PM	N/A	N/A	10/30/2012 12:00:00 AM
big4	CrossWalkBetaFile2.txt	2002	N/A	28056	6	9812	9/21/2012 3:11:08 PM	9/21/2012 3:15:14 PM	N/A	10/30/2012 12:00:00 AM
y1	CrossWalkBetaFile.txt	2002	N/A	5641	1	1968	9/20/2012 11:12:25 PM	9/20/2012 11:13:30 PM	N/A	10/30/2012 12:00:00 AM
bb1	CWreal2_WithJunkAtEnd.txt	2000	N/A	13	0	6	9/14/2012 9:14:01 AM	9/14/2012 9:14:05 AM	N/A	9/14/2012 10:05:03 AM
backward1	CW1_OneErrLine.txt	1990	N/A	13	12	10	8/6/2012 5:28:25 PM	8/6/2012 5:28:33 PM	Sep 6 2012 10:34PM; Sep 6 2012 10:34PM; Sep 6 2012 10:34PM;	9/6/2012 10:34:45 PM
l4	LA for Testing 02.txt	2002	N/A	500	499	0	7/16/2012 1:40:43 PM	7/16/2012 1:47:52 PM	N/A	9/14/2012 10:05:43 AM
l3	LA for Testing 01.txt	2002	N/A	500	497	10	7/16/2012 1:12:39 PM	7/16/2012 1:16:15 PM	N/A	12/3/2012 12:00:00 AM
latesting012	LA for Testing 01.txt	2002	N/A	500	500	0	7/16/2012 1:10:52 PM	7/16/2012 1:10:58 PM	N/A	9/14/2012 10:05:54 AM
LaTesting1	LA for Testing 01.txt	2002	N/A	500	500	0	7/16/2012 1:05:39 PM	7/16/2012 1:05:52 PM	N/A	12/3/2012 12:00:00 AM
tst13	Pam2.txt	2000	N/A	40	14	29	6/26/2012 9:12:53 PM	6/26/2012 9:12:56 PM	N/A	12/3/2012 12:00:00 AM
tst11	Pam2.txt	2000	N/A	40	14	14	6/26/2012 9:07:30 PM	6/26/2012 9:11:26 PM	N/A	12/3/2012 12:00:00 AM
tst9	Pam2.txt	2000	N/A	40	14	14	6/26/2012 9:05:36 PM	6/26/2012 9:05:39 PM	N/A	12/3/2012 12:00:00 AM

Users can filter the files that appear on the **File History** screen in several ways. Like the other file status screens, users can use the radio button selections to show only I/O coded files, only Crosswalk files, or all files.

Show All Show I/O Files Only Show Crosswalk Files Only

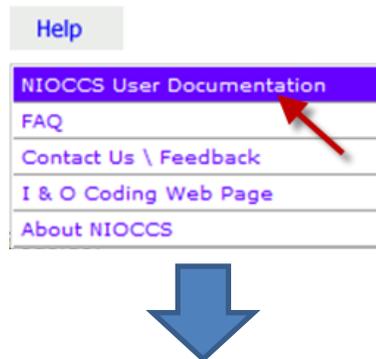
This can be used in conjunction with the **Filter** drop down which allows the user to show **Autocoded Files** or **Uploaded Files**.



10 HELP AND USER SUPPORT

10.1 NIOCCS User Manual and Documentation

NIOCCS documentation will be provided on the NIOSH Industry and Occupation Coding website (see section 10.4). The NIOCCS User Manual provides detailed operating procedures of the system. This user manual is in PDF format and can be printed in hardcopy if desired. To access the NIOCCS User Manual and other related user documentation, hover on the **Help** menu and select **NIOCCS User Documentation** from the drop-down list as shown below:

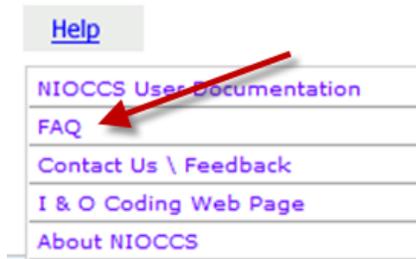


A screenshot of the NIOSH website's 'Industry and Occupation Coding' page. The page header includes the CDC logo and 'Centers for Disease Control and Prevention'. The main content area is titled 'INDUSTRY AND OCCUPATION CODING' and 'I&O Coding Documentation'. It features a list of links for 'Instruction Manuals' and 'NIOCCS Input File Formats'. The 'Instruction Manuals' list includes: NIOCCS User Manual, NIOCCS Training Guide, How to use the Census Alphabetical Lookup Feature, Census 2002 I&O Coding Instruction Manual, Census 2000 I&O Coding Instruction Manual, Technical Details for Using NIOCCS Web Service in Third Party Applications, and NIOCCS Rules of Behavior. The 'NIOCCS Input File Formats' section includes: I&O Autocoding (with links for Input File Format for Uploading to NIOCCS, Example I&O Input File in Excel format, and Example I&O Input File in .txt format) and Crosswalk Coding (with links for Crosswalk Input File Format for Uploading to NIOCCS, Example Crosswalk Input File in Excel format, and Example Crosswalk Input File in .txt format). A sidebar on the left contains navigation links for 'Workplace Safety and Health Topics' and 'I&O Coding Documentation'. A sidebar on the right includes 'Print page', 'Get email updates', 'Subscribe to RSS', 'Listen to audio/Podcast', and 'View Related Topic in Español (Spanish)'. The footer of the page contains a link for 'Industry_CDC_Census 2010'.

10.2 Frequently Asked Questions

NIOSH provides a page dedicated to frequently asked questions (FAQ) to help communicate resolutions to common issues. This page will be updated over time as more questions are received.

To provide view the FAQ page, hover on the **Help** menu item and select **FAQ** from the drop-down list as shown below:



(Partial FAQ page)

NIOSH Industry and Occupation Computerized Coding System (NIOCCS) 

[NIOOSH](#) > [NIOCCS HOME](#)

[Coding](#) [Account](#) [Help](#) currently logged on as [sxn1@cdc.gov](#) [Logoff](#)

Frequently Asked Questions

Why can't I use the Census 1990 classification system to code my data in NIOCCS?
The NIOCCS system provides autocoding capabilities for Census classification systems beginning with Census 2000. NIOSH's Standard Occupation and Industry Coding (SOIC) system can be used to code data to Census 1990. For more information, visit the SOIC web page at: http://www.cdc.gov/niosh/soic/SOIC_About.html.

Can I crosswalk records coded in the Census 1990 classification system directly to the Census 2002 classification system?
No. Census 1990 coded records must first be crosswalked to Census 2000, then crosswalked again from Census 2000 to Census 2002.

Can I use NIOCCS to code my data to the NAICS and SOC classification systems instead of Census?
NIOCCS uses the Census Industry and Occupation Alphabetical Indexes as the basis for coding I&O text. Associated NAICS and SOC codes are provided as part of the NIOCCS coded output however.

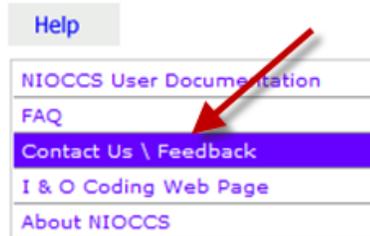
Is training available for the NIOCCS system?
Yes, see the NIOSH Industry & Occupation Coding Web Page at: <http://www.cdc.gov/niosh/topics/coding/> to request training.

What is the difference between the High, Medium, and Low autocoding confidence level setting?
The autocoding confidence level is used by NIOCCS to select matched candidates for the input I&O text where the confidence of the accuracy rate equals:
High = > 90%
Medium = > 70%
Low = > 30%

Why do you need to know my Organization when I register?
This information is stored on a user's NIOCCS account profile and is only used by the NIOCCS project team to help understand the types of organizations using the system. The information is not shared with other users.

10.3 Contacting NIOSH

To provide feedback or ask questions regarding the system, hover on the **Help** menu item and select **Contact Us \ Feedback** from the drop-down list as shown below:



The **Contact NIOCCS Support Team** screen will appear allowing the user to send a comment or question to NIOSH.

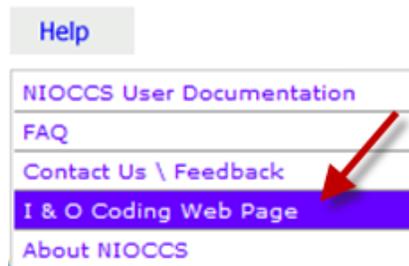
A screenshot of the 'Contact NIOCCS Support Team' web form. The form is titled 'Contact NIOCCS Support Team' in green. It includes a navigation bar with 'Coding', 'Account', and 'Help' buttons, and a user status indicator 'currently logged on as sxn1@cdc.gov' with a 'Logoff' link. The form fields are: 'Email Address: sxn1@cdc.gov', 'System Feature: General / non-specific' (with a dropdown arrow and a checkmark), and a large yellow 'Comment' text area. Below the comment area is a CAPTCHA section with the text 'supper' and a CAPTCHA logo. A 'Submit' button is at the bottom. Red arrows point to the 'System Feature' dropdown, the 'Comment' text area, the CAPTCHA input field, and the 'Submit' button.

1. Select the **System Feature** to comment/question.
2. Enter text in the **Comment** box containing your question or suggestion.
3. Enter the text in the **Captcha** box (for security reasons)
3. Click the **Submit** button.

The information provided will be sent to the NIOCCS Support Team who will respond as soon as possible via email or phone.

10.4 NIOSH Industry and Occupation Coding website

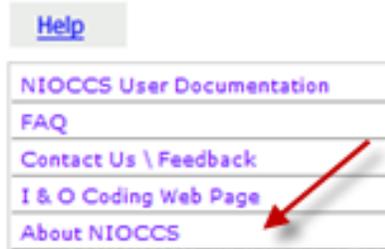
A general topic page for I&O coding will be available from the CDC NIOSH public website. This website will provide information about I&O coding training sessions provided by NIOSH, consultation services and guidelines, links to the NIOCCS and SOIC software, and links to related sites and publications regarding I&O coding.



A screenshot of the NIOSH website's 'Industry and Occupation Coding' page. The page has a header 'Workplace Safety & Health Topics' and the NIOSH logo. A left sidebar lists navigation options like 'Industries & Occupations', 'Hazards & Exposures', and 'Industry and Occupation Coding'. The main content area features the title 'INDUSTRY AND OCCUPATION CODING' and a paragraph explaining NIOSH's role. Below this is a section titled 'I&O Coding Services and Support' with four sub-sections: 'I&O Coding Training', 'I&O Coding Software', 'I&O Coding Documentation', and 'Consultation'. A right sidebar contains utility links like 'Print page', 'Get email updates', and 'Contact Us: National Institute for Occupational Safety and Health (NIOSH)'. A 'Help' menu is also visible at the top left of the page content.

10.5 About NIOCCS

This screen provides the NIOCCS version number and date of the current release, links to obtain more information about the product, and a CDC disclaimer for using the product.



**NIOSH Industry and Occupation
Computerized
Coding System**

Version 2.0 September 2014

For the latest product information, visit the NIOSH Industry and Occupation Coding web site at:
<http://www.cdc.gov/niosh/topics/coding/software.html>

or

Contact the NIOCCS development team by sending an email to: NIOCCS@cdc.gov

THE MATERIAL EMBODIED IN THIS SOFTWARE IS PROVIDED TO YOU "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL THE CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC) OR THE UNITED STATES (U.S.) GOVERNMENT BE LIABLE TO YOU OR ANYONE ELSE FOR ANY DIRECT, SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR ANY DAMAGES WHATSOEVER, INCLUDING WITHOUT LIMITATION, LOSS OF PROFIT, LOSS OF USE, SAVINGS OR REVENUE, OR THE CLAIMS OF THIRD PARTIES, WHETHER OR NOT CDC OR THE U.S. GOVERNMENT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSS, HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, ARISING OUT OF OR IN CONNECTION WITH THE POSSESSION, USE OR PERFORMANCE OF THIS SOFTWARE.



Close

APPENDIX A: GLOSSARY

Accuracy Rate - Percentage of correctly assigned I&O codes among all the phrases (I&O narratives) automatically assigned I&O codes by the system.

Autocoding – A process by which information (data) is evaluated by computer algorithms and translated automatically into a standard set of codes. No human intervention is required.

Autocoding Confidence Level – The confidence level that must be satisfied by a code candidate in order to be automatically selected by the coding engine without the intervention of the user.

Batch File – An electronic file containing a group of records that are prepared in a required format to be processed for an operation.

BLS – Bureau of Labor Statistics

Census I&O Classification codes – Bureau of Census Alphabetical Index of Industries and Occupations.

Coding Engine – The main computer program that performs the logic for translating data into a standard set of I&O codes. It consists of smaller program units that implement individual coding processes.

Computer-assisted coding – A process which by computer software supports a person in the translation of information (data) from text format to a standardized set of codes. Requires human intervention and decision making.

Crosswalk – Mapping a code from one I&O classification coding scheme to another I&O classification coding scheme or to a different code within the same I&O coding scheme for a different year.

Download - To receive data to a local system from a remote system.

FAQ – Frequently Asked Questions

Home Page - Main web page of a website of a group, company, organization, or individual.

I&O Coding Scheme – One of several industry and occupation classification systems used to assign standard codes to industry and/or occupation text. Examples include: Census alphabetical Indexes for I&O, the North American Industrial Classification System (NAICS), and the Standardized Occupational Classification system (SOC).

Industry Text – The actual word or words entered on employment, health and vital records to describe an individual's place of employment (industry).

Instruction Manual, Part 19B – Procedures developed by the National Center for Health Statistics (NCHS) to provide state and local health and vital statistics agencies with a uniform system for coding I&O entries reported on death certificates. Adapted from Bureau of Census industry and occupation classification system.

NAICS – The North American Industrial Classification System is an industry classification system that groups establishments into industries based on activities in which they are primarily engaged. NAICS is the first classification created for uniform industry codes between the United States, Canada and Mexico.

NIOCCS – National Institute for Occupational Safety and Health Industry and Occupation Computerized Coding System.

NIOSH – National Institute for Occupational Safety and Health

NCHS – National Center for Health Statistics

Occupation Text - The actual word or words entered on employment, health and vital records to describe an individual's occupation.

Production Rate – Percentage of the phrases that are assigned an I&O code automatically among the total input phrases submitted for coding.

SOC – The Standardized Occupational Classification system developed by the Bureau of Labor Statistics for classifying all occupations in the economy, including private, public, and military occupations. The SOC system was first introduced in 1977, was updated in 1980 and again in 2000.

Stakeholder - Stakeholders are the individuals, groups, or organizations who are actively involved in a project, are affected by its outcome, or are able to influence its outcome. (Project Management Institute 2000; Smith 2000)

Upload - The sending of data from a local system to a remote system such as a server or another client with the intent that the remote system should store a copy of the data being transferred.

User – A customer who will interact with a system either directly or indirectly. Also called end user.

User Account – Mechanism used to authenticate a user to a system. It provides the opportunity for a user to be authorized to access a system and control access to features of a system.

User Interface - The aggregate of means by which people interact with a system, machine, device, computer program or other complex tool.

Web Application – An application that is accessed with a Web browser over a network such as the internet or intranet.

Web Service Requestor - A program unit that sends data to the web service according to the format specified by the web service.

Web Service - A software system designed to support interoperable Machine to Machine interaction over a network. Web services are frequently just Web APIs that can be accessed over a network, such as the Internet, and executed on a remote system hosting the requested services.

APPENDIX B: INDUSTRY AND OCCUPATION CLASSIFICATION SYSTEMS OVERVIEW

Industry and Occupation Classification Systems		
Industrial Classification System		Years Updated
North American Industry Classification System (NAICS)	Developed jointly by the U.S. Office of Management and Budget, Canada, and Mexico to provide new comparability in statistics about business activity across North America.	1997, 2002, 2007, 2012 Updated every 5 years.
Census Alphabetical Index of Industries	Developed primarily for use in classifying a respondent's industry (employer's type of business) as reported in the Census, the Current Population Survey, the American Community Survey, and other demographic surveys conducted by the Census.	1980, 1990, 2000, 2002, 2007, 2012 Updated as NAICS is updated.
Occupational Classification Systems		
Standard Occupational Classification (SOC)	Developed by the Bureau of Labor Statistics for classifying all occupations in the economy, including private, public, and military occupations.	1980, 2000, 2010
Census Alphabetical Index of Occupations	Developed primarily for use in classifying a respondent's occupation (employee's type of work) as reported in the Census, the Current Population Survey, the American Community Survey, and other demographic surveys conducted by the Census.	1980, 1990, 2000, 2002, 2010 Updated as SOC is updated and continuously through review of census and survey responses.

GENERAL DESCRIPTION OF THE CENSUS INDUSTRY & OCCUPATION INDEXES

(Reference: <http://www.census.gov/hhes/www/ioindex/overview.html>)

The Bureau of Census [Alphabetical Indexes of Industries and Occupations](#) were developed primarily for use in classifying a respondent's industry (employer's type of business) and occupation (employee's type of work) as reported in the Census 2000, the Current Population Survey, the American Community Survey, and other demographic surveys conducted by the Census Bureau.

The [Census 2000 Alphabetical Indexes](#) list over 21,000 industry and 31,000 occupation titles in alphabetical order. They are comprehensive lists of specific

industries and occupations developed over time and continuously updated through review of census and survey responses.

Coverage

The basic content of each Census 2000 Index is derived largely from previous editions. However, many new titles were added to each of the industry and occupation listings and some obsolete titles have been deleted. Many of the original occupation titles came from the *Dictionary of Occupational Titles* published by the U.S. Department of Labor, Employment and Training Administration; these were updated during the revision of the Standard Occupational Classification (SOC).

Classification Systems

The purpose of the classification systems used in these indexes is to organize and to make understandable the many thousands of industries and occupations. These systems group titles describing like industries or like occupations into homogeneous categories and assign a code to each category.

Industry Classification

The North American Industry Classification System (NAICS), prepared by the Office of Management and Budget and published in the *North American Industry Classification System (NAICS) Manual*, is the standard for industrial classification systems in the U.S. government. NAICS groups establishments into industries based on the activities in which they are primarily engaged. The United States, Canada, and Mexico developed the system to provide comparable statistics across the three countries. It is a comprehensive system covering the entire field of economic activities, both productive and nonproductive. There are 20 sectors in the NAICS, and 1,179 detailed industries in the NAICS for the United States. The NAICS/United States is used by the U.S. statistical agencies to facilitate the collection, tabulation, presentation, and analysis of data relating to business establishments. It provides uniformity and comparability in the presentation of statistical data describing the U.S. economy.

The Census Bureau has adapted the NAICS to create the industry categories used in the Census Industrial Classification Index. The census system consists of 265 categories arranged into 20 sectors. The sectors are exactly the same as those found in the NAICS. The census industry codes are distinct numbers from those used as occupation codes. The Census industrial classification system provides a link to the equivalent NAICS code(s) for each census category.

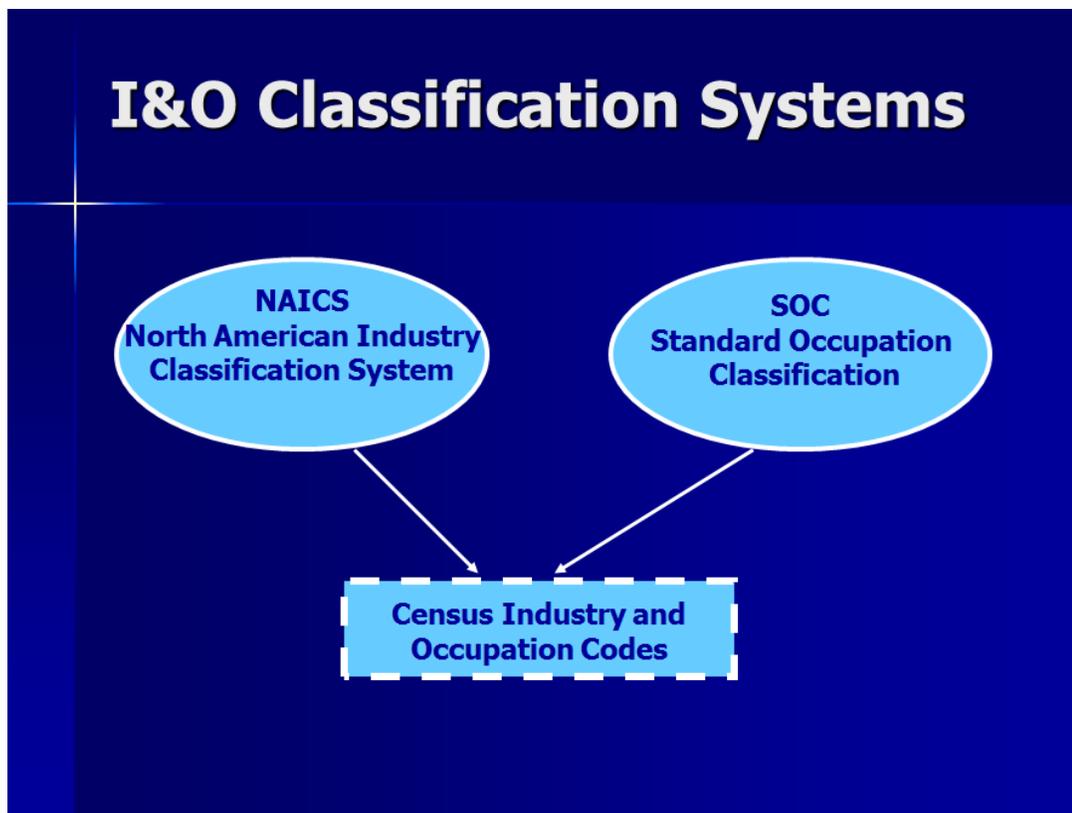
Occupation Classification

The Standard Occupational Classification (SOC) system is the federal government's standard classification system for occupations. It groups occupations according to the nature of the work performed, and relates these occupations to others of a similar

nature. There are 23 major groups in the SOC and 821 detailed occupations within those groups. This system provides a mechanism for cross-referencing and aggregating occupation-related data collected by social and economic statistical reporting programs.

The Census Bureau has adapted the SOC to create the occupation categories used in the Census Occupational Classification Index.

The Census I&O Alphabetical Classification Indexes provide a cross-reference between industries and occupations using NAICS and SOC as the basis for classifying industry and occupation titles



APPENDIX C: AUTHORIZED USE AND RULES OF BEHAVIOR

NIOSH Industry and Occupation Computerized Coding System (NIOCCS)

Rules of Behavior

October 2012

Introduction

The NIOSH Industry and Occupation Computerized Coding System (NIOCCS) is a web-based computer system that translates industry and occupation (I/O) text into standardized I/O codes. It is a tool developed by NIOSH, free of charge to users, which will improve coding uniformity and reduce the high cost of manually coding I/O information from vital records, cancer registries, health care records, and other record systems.

Purpose

These rules of behavior are not to be used in place of existing policy; rather they are intended to enhance and further define the specific rules each user must follow while accessing and using NIOCCS. The rules are consistent with the policy and procedures described in the [Department of Health and Human Services \(DHHS\) Information Security and Privacy Program](#) and specific policy documents. The DHHS Information Security and Privacy program contains computer security guidance on a wide range of topics and describe the Information Technology Security Program that establishes policies, procedures, and responsibilities in the area of computer security within the Department.

Non-compliance

Non-compliance with these rules will be enforced through sanctions appropriate with the level of infraction. Actions may range from a verbal or written warning and/or removal of system access depending on the severity of the violation.

Policy Rules

NIOCCS does not collect personally identifiable information (PII). CDC/NIOSH asks users not to include PII in any data files submitted to NIOCCS for coding.

Users are provided access to NIOCCS for the purpose of facilitating CDC/NIOSH's public health mission. Each user is responsible for helping to prevent unauthorized use of, and access to, system resources. This duty includes complying with all stated policy requirements, taking due care and reasonable precautions when handling system data or using system resources, and in managing and protecting system authentication controls (passwords, etc.). When in doubt, users are strongly encouraged to contact NIOCCS user support by sending an email to NIOCCS@CDC.gov or calling 513-458-7133.

Users shall not attempt to access any data or programs on the NIOCCS system for which they do not have authorization.

Users shall not engage in, encourage, conceal any “hacking” or “cracking,” denial of service, unauthorized tampering, or unauthorized attempted use of (or deliberate disruption of) any computer system within the NIOCCS system.

Users shall not purposely engage in any activity with the intent to:

- Degrade the performance of the system
- Deprive an authorized user access to a resource
- Obtain or attempt to obtain extra resources beyond those allocated
- Circumvent security measures in order to gain access to any automated system for which proper authorization has not been granted.

Users will access NIOCCS through a NIOCCS user account and password authentication. Each NIOCCS user will have a unique User Name and password for the system.

A user can only have one logged on session at a time. If a user logs in on one computer then tries to log on again at another workstation without logging out of the previous session, they will be given a choice of canceling the previous session or not continuing with the new log on. This business rule was made to protect a user’s data from conflicting access to the same data files which may cause the data to become corrupt.

Each user is responsible for protecting his/her password. Passwords may be shared, *however users are responsible for all actions performed with their account.* Users who believe their password has been compromised in any way should inform NIOSH. Users will supply a password that meets the NIOCCS requirements. (Passwords must be at least eight characters in length and must contain at least one capital letter, one lower case letter, and no spaces. The maximum number of characters in the password is 30.)

NIOCCS will provide a randomly generated password to the user via email when a user account is first set up or when a ‘Forgot Password’ request is made. Users must change the NIOCCS generated password at next logon.

NIOCCS System Administrators may periodically monitor both the system and user activities for purposes including, but not limited to, troubleshooting, performance assessment, usage patterns, indications of attack or misuse and the investigation of a complaint or suspected security incident.

NIOCCS System Administrators have access rights to all data and user information within the NIOCCS system.

NIOCCS System Administrators will not share or allow access to data submitted by users to other any person or entity.

NIOCCS System Administrators may review user's computer-assisted coded data periodically to analyze the data for possible inclusion into the NIOCCS knowledge base to improve overall efficiency and accuracy of coding. Once analyzed, NIOSH will delete user files from the CDC server if the file has expired or was removed by the user. A record of all file activity by the user is recorded in the system and can be viewed by the user at any time.

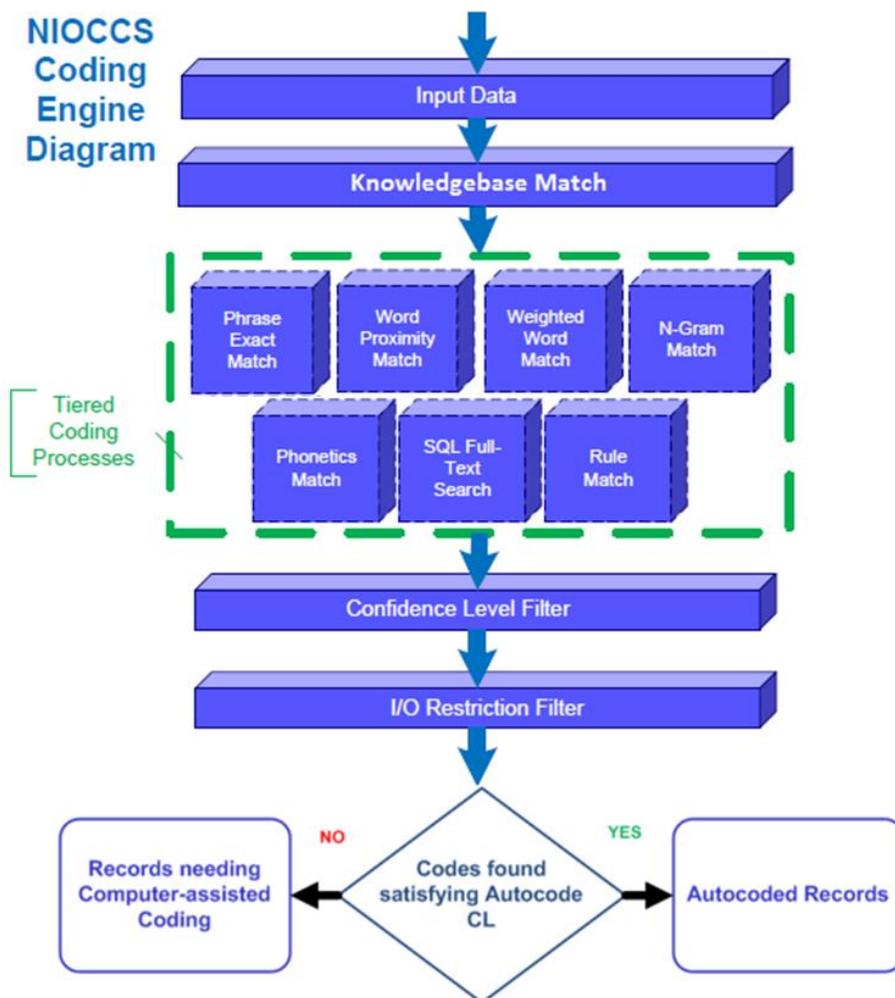
APPENDIX D: NIOCCS CODING PROCESSES, PERFORMANCE, AND LIMITATIONS

NIOCCS Coding Engine

NIOCCS codes industry and occupation text based on the Census Alphabetical Index of Industries and Occupations supplemented with special codes developed by CDC/NIOSH for non-paid workers, non-workers, and the military (see NIOSH I&O coding documentation for more information: <http://www.cdc.gov/niosh/topics/coding/NIOCCSUserDocumentation.html>)

The **NIOCCS Coding Engine** design has processes that cover phrase-based and word-based, exact match and proximity match, and weighted and not-weighted matching. Each process has its specialty of best-fit coding areas, so the combined coding ability is enhanced.

A high level view of the NIOCCS coding engine is illustrated in the diagram below.



The **NIOCCS Knowledgebase (KB)** is designed to handle common industry and occupation combinations and common misspellings. It is the first process in the coding engine. Input records that have an exact match in the KB will be automatically coded and will not need to be processed through further coding algorithms. The NIOCCS KB was initially developed using one million records coded by the Bureau of Census on Census surveys and 260,000 death certificate records coded by NIOSH. These records were reviewed by expert NIOSH I&O coders for inclusion in the KB. The current NIOCCS KB has over 42,000 records and is continually updated by the NIOCCS team as more records are coded and reviewed for potential inclusion.

NIOCCS makes use of **Confidence Levels (CL)** to decide the coding path, i.e. *Autocoding* or *Computer-Assisted coding*. Codes above the user selected *Autocode Confidence Level (CL)* threshold will be put into the Autocoding path where the code with the highest confidence level is picked by the system automatically as the final code. Codes under the *Autocode CL*, referred to as *code candidates* will be put into the Computer-assisted coding path. **NOTE:** *The higher confidence level (CL) setting will result in higher accuracy of the coded results however it may reduce the number of records automatically coded. See Chapter 5 for more information about the NIOCCS Autocoding Confidence Levels.*

The **I&O Restriction Filter** is an inter-dependency arbitrator. The industry code and occupation code sometimes have inter-dependency, in that one industry title may map to more than one industry code, and the most accurate one can only be decided by looking at the occupation information; on the other hand, one occupation title may map to more than one occupation code, only the industry code can help to narrow them down to the most appropriate one. The system will first decide on the industry code, and then proceed to the occupation code, because in most cases the occupation codes are restricted by industry codes. If there is still more than one set of industry and occupation codes that cannot be further screened, they will be output as all possible candidates together with their confidence levels. *See Chapter 6.6.2.4 for more information on industry restriction rules.*

Crosswalk Coding Engine

When the user already has the I&O codes from one I&O classification scheme and needs to convert to the corresponding codes of another scheme or another year within the same I&O classification scheme, the Crosswalk Coding Engine is launched. The coding engine looks up the crosswalk tables that have stored the code mappings for each year and each scheme. This is an exact match process.

Autocoding Results

Benchmarks for NIOCCS autocoding are based on accuracy rates of the data that is autocoded by the system. Accuracy is tested using large sets of records that have been coded and verified by NIOSH trained I&O coders. The benchmark goals for NIOCCS are:

- High Confidence Level: 10% or less error rate found in autocoded data
- Medium Confidence Level: 25% or less error rate found in autocoded data

Production rates are determined by calculating the percent of records coded automatically by NIOCCS. **NOTE:** *The quality of data input for coding can result in very different autocoding production rates.* Using these above measures for accuracy, the actual production rates for data that has been submitted to NIOCCS for autocoding by external users has demonstrated the following:

HIGH Confidence Level, Both Industry and Occupation Autocoded

Data Type	Year 2013	Year 2014
Death Certificates	64%	64%
Cancer Registry Data	35%	60%
Surveys	49%	50%
Other	52%	57%
Average of All Data Types	51%	56%

Medium Confidence Level settings will typically result in a 10-15% increase in the number of records autocoded depending on the quality of the data.

NOTE: *The higher confidence level (CL) setting will normally result in higher accuracy of the coded results however it may reduce the number of records automatically coded. See Chapter 5 for more information about the NIOCCS Autocoding Confidence Levels.*

Data Quality

Coding results will vary and depend upon overall data quality. *Different data sources may render significantly different accuracy and production rates.* Structured and detailed data sources will have higher accuracy and production rates than data sources with liberal text, insufficient information, or numbers included in the text.

NIOCCS uses only the industry and occupation text to assign codes. *Records that contain employer name and/or job duties, such as survey data, will not code at the same rate of accuracy or production as records containing only industry and occupation.* This is because the additional pieces of information (employer and job duties) can conflict and/or provide more detailed information that could alter the most appropriate I&O codes to assign. Future releases of NIOCCS may incorporate the user of job duties and employer information in the autocoding process.

Limitations

Performance

Internet bandwidth will significantly affect the interactivity of the computer-assisted coding.

The Autocoding process may take a significant amount of time when the volume of the data is significantly large. The turnaround time for autocoding may also depend on the traffic in the queue of coding jobs.

File Size Limitations

Upload file size is currently (September 2014) limited to 2.5 mg. The number of records this equates to will vary depending on how many of the optional fields on the input file format are used. Files uploaded using the expanded file format will equate to approximately 10,000 – 20,000 records. For files that use slim file format, it equates to approximately 20,000 – 25,000 records.

Coding directly to NAICS and SOC

NIOCCS coding is based on the Bureau of Census I&O Classification schemes. NAICS and SOC codes can be obtained through NIOCCS, however the NAICS and SOC codes will be limited to the detail provided in the Census Alphabetic Indexes. Users can not code directly to NAICS and SOC codes.

Continual Improvement

The NIOCCS project team will continue to test and identify adjustments that can be made and user feedback will be key in identifying and prioritizing improvements. NIOCCS system architecture was developed to enable the following types of ongoing system improvements:

Knowledgebase (KB)

The NIOCCS KB will be continually evaluated as NIOSH coding and IT staff analyze more coded data to identify the refinements that could be made to the knowledgebase to improve accuracy and efficiency.

Coding Engine

As more data have been processed and studied, the internal parameters (such as the weight of process, weight of keywords, etc.) will be adjusted to the optimal values, thus accuracy and production are increased.

Special Coding Rules

Specific rules for unique industry or occupation titles will be added as needed to improve coding accuracy. Each rule will be tested and approved by expert coders before adding into the system, and will be periodically validated, so that invalid or obsolete rules are removed.