

NOICC Crosswalk and Data Center

**Annual Report
July 1, 1998-June 30, 1999**



NOICC Crosswalk & Data Center
Iowa SOICC
1000 East Grand Avenue
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January 22, 2000

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Introduction

Federal statistical agencies use a variety of taxonomies to classify different types of labor market, educational and economic activity. These classification systems, their relationships to each other and the data they are used to classify form much of the infrastructure for systems for providing information to those interested in the impact of the labor market on them. The Department of Labor's Employment and Training Administration (ETA) provides a number of automated labor-market related services over the Internet, utilizing a number of these classifications. The National Occupational Information Coordinating Committee (NOICC) is an interagency committee made up of federal agencies who are major producers of occupational and training program information including ETA.

Part of NOICC's mission is to address the needs of those planning educational and training programs. Early in the agency's history, member agencies recognized the need to be able to relate occupations to training programs to aid those planners. Among the first tools developed was a publication titled *Vocational Preparation and Occupations*, known as the VPO. The VPO described the occupational and training classifications and contained a printed report that linked related programs and occupations.

The definition of the VPO expanded over time to include the crosswalk database used to produce the report. Demand for custom products based on the database grew as more people realized its potential for meeting their individual needs. Since NOICC lacked both staff and data processing resources to meet those needs, both NOICC and others turned to other possible service providers, including the Iowa SOICC. Two Iowa SOICC staff began providing a variety of products, mostly printed reports and computer tapes, to meet this demand. Since 1983, a service center for providing those products has been operated by the Iowa SOICC under a series of competitive special-purpose grants from NOICC.

Until 1993 the service was known as the National Crosswalk Service Center; the name was then changed to the NOICC Crosswalk and Data Center (NCDC) to reflect the ongoing support by NOICC and the center's increasing involvement in the distribution and use of occupational and training data. This report documents activity during the latest period of the center's operation. NOICC's commitment to providing quality tools to its network and others has been demonstrated by its investment of over \$3 million in the operation of the NCDC over the years.

During the year beginning July 1997, funding for NCDC operation switched from NOICC to ETA. Although funds still flow through NOICC and the center's grant is from that agency, the change in funding significantly widened the arena in which the center operates. It is expected that past NCDC efforts will be broadened to include a new audience from within ETA's system

of State Employment Security Agencies (SESAs). ETA has undertaken a number of projects to help the SESAs deliver information to their customers, and NCDC support for several of those projects will be significant. Collectively, these projects are known as America's Labor Market Information System (ALMIS).

The center's products and services have undergone major changes since the center began, going from mainframe computer tapes and printed reports based on a relatively small number of files to a wide array of products from numerous federal agencies available through a variety of delivery channels. During the period covered by this report, technological change allowed the center to serve its traditional customer base while expanding support for DOL projects. A number of products were developed to support state efforts to populate the ALMIS Database, a relational database designed to contain a wide variety of labor market, economic and occupational information. Many of the standardized files contained in the database are similar in content and format to files contained in NOICC's Occupational and Labor Market Information Database (OLMID), on which the ALMIS Database is partially based. Given the shift in NCDC funding, support for the ALMIS Database was a logical next step in expansion of the center's operation.

1998-99 NCDC Activities

The shift in the center's source of funding has expanded the NCDC's primary audience to include a variety of ETA-sponsored activities. The NOICC/SOICC network and those committees' constituent agencies remain as significant customers for the center. The center supports the network in a variety of ways, ranging from supplying files members need for their own individual projects to providing support for various national projects. Some of the activities relating to the latter type of support are described below:

- *The ALMIS Database:* NOICC's Occupational and Labor Market Information Database (OLMID) and Microcomputer Occupational Information System (Micro-OIS) resulted from a cooperative effort involving NOICC and the SOICCs. OLMID was developed as a standardized structure designed to hold the occupational and labor market data that the network has traditionally delivered to planners of training programs and other users. NOICC staff, along with the Department of Labor and others, participated in the design of the ALMIS Database. This latter database contains information that is in many ways similar to OLMID. However, the ALMIS Database expanded the data contents of OLMID and utilized a more fully normalized relational database structure. NCDC support for the ALMIS Database Maintenance Consortium and state efforts to populate the tables in their respective versions of the database took a number of forms.
 - : NCDC staff translated all of the files developed for OLMID into the format of their ALMIS Database counterparts. In addition, sets of standardized data files were developed containing Bureau of Economic Analysis income data, census income, population and labor force data
 - : NCDC staff updated the files available on its server in January 1999 after version 1.1 of the database structure was released by the consortium.
 - : States have expressed an interest in using a variety of packages for development of the database. In order to satisfy as many needs as possible, the NCDC has made ALMIS

Database files available in three formats: as a Microsoft Visual FoxPro (VFP) database, as individual FoxPro 2.6 files, and as individual comma-delimited text files. Some states have elected to use VFP to maintain the database. Those states can use that version of the database, which includes the relationships among individual tables specified as part of the ALMIS Database design, and add updates from the individual FoxPro or text files. The text files are designed to be the easiest to export to Oracle.

- : The center furnished material and participated in the presentation of training for state analysts in populating the ALMIS Database. The pilot training was held in Atlanta in September 1998. NCDC staff participated in that session, along with a second session held in St. Paul in December.
 - : NOICC is a member of the consortium formed by DOL to help manage the database, and NCDC staff attend consortium meetings in Mystic CT, Naples FL and Washington DC, and provided updates on the center's activities in support of the project, advise on classification issues and seek guidance from the consortium on allocation of NCDC resources.
- ❑ *Internet Services:* The NCDC developed the initial NOICC home page (www.noicc.gov) on the World Wide Web in 1995. Additional Internet services have been added over time. The NCDC sponsors the NOICC listserv as part of the State of Iowa's Internet services. A listserv distributes electronic mail (e-mail) messages to its subscribers. NOICC has encouraged all SOICCs to subscribe to this service, which is expected to take on increasing significance in the network's communication processes. In December 1997, the NCDC began operation of an Internet File Transfer Protocol (FTP) server ([ftp.noicc.gov](ftp://ftp.noicc.gov)). The center uses this server for distribution of its standardized files and in support of specific programs such as the ALMIS Database. During the period covered by this report, well over 32,000 files were read or downloaded. This represents nearly five gigabytes downloaded by the center's customers. Over 2,300 individual files are available to users-- over half of those were developed and placed on the server in support of the ALMIS Database. During the recently completed period, the NCDC placed all of the files developed as part of ETA's Media Library of Occupations. The center also initiated SOICCnet, a closed system designed to promote communication throughout the NOICC/SOICC network. Internet activity have made a significant contribution to the center's ability to serve its customers (see the Analysis of NCDC Requests section of this report.)
- ❑ *NOICC's Licensed Occupation Information System (LOIS):* During the report period, the NCDC focused on adding more states' files to the system and preparing for a transition of licensing data to part of America's Career Kit. Data for six additional states were added to the system. In addition, files were received from another four states, but processing had not been completed by the end of June. The center worked with staff from a number of states to resolve issues they had with the system's file structures and contents. NCDC staff also worked with a contractor hired by ETA to assist states in developing licensing data.

- ❑ *Bulletin Board Activities:* The NCDC has operated a dial-up electronic bulletin board system, the NCDC BBS, for sharing of files since 1989. This resource has allowed callers to download 6,500 files, freeing up NCDC resources for other activities. The center maintains a nationwide toll-free telephone number for the BBS. This allows for both dial-up and Internet Telnet access to the service through FedWorld, a clearinghouse of Federal electronic resources run by the National Technical Information Service. As use of the Internet for file distribution has grown, use of the NCDC BBS has declined. During the current period, the number of calls to the service declined by nearly two-thirds and the number of files downloaded dropped by 80 percent. Activity on the NCDC BBS mirrors trend experienced by nearly all other BBS operators as use of the Internet for similar activities as continued to grow.

- ❑ *Classification activities:* The major anticipated occupational classification revision, the Standard Occupational Classification (SOC), was not finalized during the period covered by this report. Nonetheless, the center was involved in a great deal of activity revolving new and upcoming classification revisions, including:
 - : In March, NCDC staff participated in a meeting, organized by ETA, which sought to identify and resolve occupational classification and crosswalk issues facing developers of portions of America's Career Kit. Other staff at the meeting represented the Bureau of Labor Statistics (Occupational Employment Statistics and Office of Employment Projections), America's Learning eXchange, America's Career Information Network, the National O*NET Consortium and ETA. At this meeting the NCDC was selected as the clearinghouse for crosswalk files and other resources developed by those attending the meeting and as a catalyst for communication among them.
 - : The NCDC has provided a variety of types of support for the Department of Education in its revision of the Classification of Instructional Programs (CIP). During the period covered by this report, provided a number of reports which included program national completer counts by program, crosswalks to occupational classifications, and listings of potential new programs from the center's experience working with the states in NOICC's State Training Inventory program.
 - : Downloaded the database (.dbf) version of the public release of Version 1.0 of O*NET, the Department of Labor's replacement for the Dictionary of Occupational Titles. The downloaded files were imported into a relational database. The NCDC registered with the National O*NET Consortium as a certified user. Selected extracts of the data were furnished to a contractor on the NCDC project and to a consultant to the National Skills Standard Board. On several occasions, NCDC staff worked with O*NET users to resolve their issues. Some of these users were referred to the NCDC by the National Center for O*NET development.

- ❑ *Product Development:* Classification changes are the driving force behind many of the products developed by the NCDC. No revisions were released during the period covered by this report, but a number of other major resources were revised or released. Many of these have wide applicability, often outside formal programs such as the ALMIS Database. Among the products developed or made available for distribution are:

- : An NCDC contractor, in cooperation with NOICC and ETA began development of a training package focusing on use of the O*NET database and viewer. The target audience for the training will include SOICC and SESA staff. The training will focus on needs identification and access to O*NET data through the use of the O*NET viewer. Completion is expected during the second half of calendar 1999.
 - : Crosswalk files linking the Occupational Employment Statistics (OES) classification with the occupations used in America's Job Bank (AJB) were made available on the NOICC FTP server in June. The files were developed by AJB and designed for use by career and other system developers who include links from their systems to occupations in the system. Revised files were made available in April.
 - : Files containing counts of persons leaving the military by occupation by state and county were distributed to the states in October. These files are intended to represent one source of trained workers by occupation and designed for use with OLMID and the ALMIS Database. Similar data from the Bureau of Apprenticeship and Training were also made available on the NOICC FTP server.
 - : A database containing community college data was developed and furnished to contractors on America's Labor eXchange in November.
 - : NOICC's prototype units of analysis files were updated to include the occupations from the national employment projections for 1996-2006. The files were formatted for use with either OLMID or the ALMIS Database.
 - : During March, files containing new OES wage estimates for the U.S. and states for 1997 were downloaded, converted to database tables and made available on the NOICC FTP server.
- *NCDC Outreach:* NCDC staff attend various conferences and meetings at which its customers congregate. These offer good opportunities to meet with customers and provide them with information about NCDC activities that may be of interest to them. During the latest grant period, NCDC staff attended the following meetings and conferences:
- : NOICC/SOICC Leadership Forum in Breckenridge CO in August 1998
 - : ALMIS Database Maintenance Consortium meeting in Mystic CT August/September 1998
 - : Pilot ALMIS Database training in Atlanta GA in September 1998 (Presenter)
 - : Annual Labor Market Information Forum in St. Louis MO in November 1998.
 - : ALMIS Database Training in St. Paul MN in December 1998. (Presenter)
 - : ALMIS Database Maintenance Consortium meeting in Naples FL in January 1999.
 - : America's Career Kit Taxonomy Meeting in Washington DC in March 1999
 - : National SOICC Conference in Washington DC in March 1999. (Presenter)
 - : ALMIS Database Maintenance Consortium meeting in Washington DC in April 1999.
 - : Midwest CIDS/SOICC Conference in St. Louis MO in May 1999. (Presenter)

Analysis of NCDC Requests

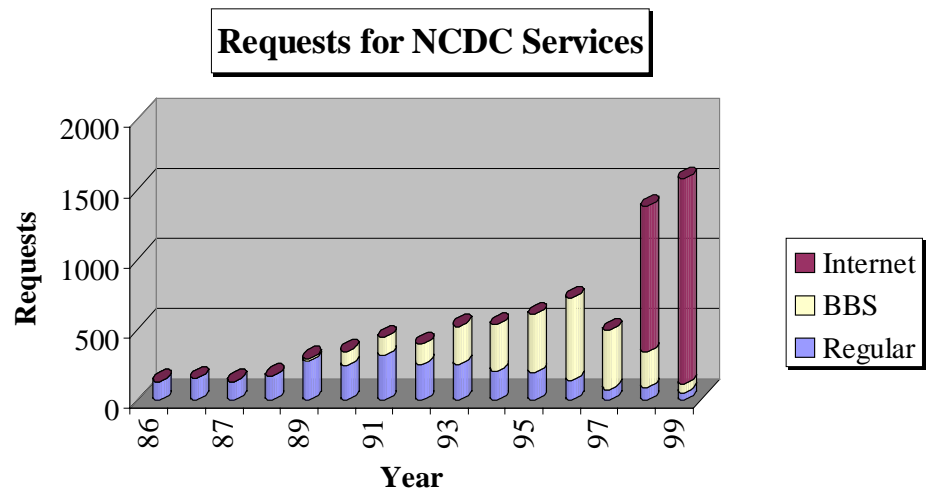
The most significant NCDC activity is the provision of files, reports and other services to its customers. These services put occupational resources into the hands of those developing systems and others who help the ultimate consumers of occupational information. Two trends have been evident over the past several years: the diversity of products available from the center has increased significantly, and the number of files obtained by NCDC customers without direct action by the center's staff has also grown.

The shift in the ways in which NCDC products are delivered has several implications. First, communication between the center's staff and its customers has changed. Customers are less likely to call the center if they can find the files they want on either the BBS or Internet. So, center staff have less day-to-day contact with customers. As a result, NCDC staff have focused increased efforts on improving the usability of the center's files and broadening the number of file formats available. Customers do call the center asking about the formatting or uses of current products or the availability of others. As a bonus, when new products are developed in response to these customer requests, the sharing of those files is facilitated when they are placed on the Internet or BBS. This allows NCDC customers to retrieve files with no assistance from NCDC staff and

free the center's resources for expansion of services into new areas and concentration on more complex requests and other product development. In fact, relatively few files are distributed on diskette. This trend is likely to

continue as the Internet becomes an even more significant distribution mode for the NCDC. The growth of the Internet has contributed to a significant decline in the significance of the NCDC BBS for delivering services. Generally, those who operate dial-up BBS systems have seen significant declines in activity as use of the Internet has skyrocketed. Many BBS users and operators predict that use of the Internet will render dial-up systems obsolete.

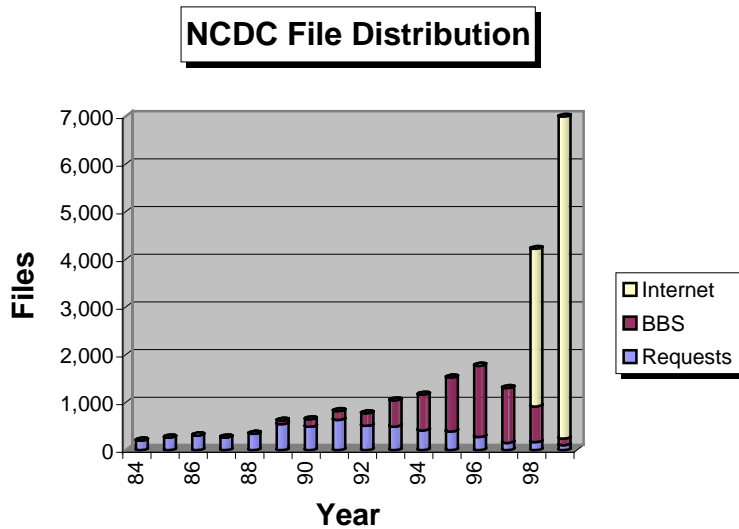
The second trend, evident in the accompanying graph, is how the use of technology has enabled the center to increase its services to customers without an increase in resources. For the purpose of this analysis, a request on the BBS or Internet is defined as any user session during which one or more files is downloaded, regardless of the number of files transferred. So, a session at which a single file is transferred is equivalent to one during which the customer downloads 20 files. The downloading of files developed for the ALMIS Database has contributed significantly to the



Internet usage. The NCDC has placed over 1,200 ALMIS Database files on the Internet FTP server. Many of these files are state-specific data files, so they are downloaded infrequently. See the attachment to this report for a listing of the most frequently downloaded files for each of the past two contract years.

The increase in demand for the center's products can be attributed to two factors: the release of the new occupational resources (employment projections files, *Occupational Outlook Handbook*, etc.) listed in a previous section of this report, and support for the ALMIS Database. Another increase in demand may be on the horizon as classification revisions are completed and the ALMIS Database evolves and more states begin populating the files that make up the database.

Analysis of download activity on the BBS and Internet FTP servers illustrates the types of files in demand by NCDC customers and how significant the Internet has become as a distribution medium. For example, far more copies of the NOICC Master Crosswalk were distributed in just six



months via the internet than were downloaded during the three years the file was available on the BBS (during the early years of BBS operation, relative slow modem speeds prevented making the 1 MB+ crosswalk file available for downloading there.). The significance of the ALMIS Database is also apparent; four of the ten files with the most downloads relate to the database. The significance of the ALMIS Database will undoubtedly increase as data files are updated, additional files are incorporated into the system and revised classifications are added.

Anticipated NCDC Activities

Change has been a constant part of the operation of the NCDC. The center's mix of products and modes of delivery have changed significantly over time. But, never has the center faced the magnitude of change which will occur in the coming year. Federal workforce and vocational education legislation will bring the operation of NOICC to an end on June 30, 2000. The NCDC's growing relationship with ETA and its ALMIS consortia will become increasingly important to the center's operation. One of the key challenges will be

During times of rapid change, predicting specific changes in the mix of products and services offered by the center becomes difficult. Rather, as the center's customers become more

sophisticated and new or revised classification systems are released, even more demands are expected on the center's resources. At the time this report was written, NCDC staff have anticipated the following major activities for the following year:

- ❑ *Classification revisions:* Revisions to a number of classifications and releases of other, new classifications were expected during the year covered by this report. For a variety of reasons, these revisions were not finalized. They are expected to occur during the next year and will have significant impacts on NCDC customers and the center's activities. The expected classification releases include:
 - : Standard Occupational Classification (SOC): Although the 1998 SOC revision has not been finalized, the classification is coming into use. Both the 1999 OES Survey and the 2000 Census will use the latest draft SOC occupations. Once the SOC becomes final, we anticipate demand for a number of crosswalk files, including links to: (1) OES and other legacy classifications, (2) training programs from both the 1990 and 2000 CIP, (3) versions of the SOC used by the OES and Census. We expect to distribute these and other SOC-related products.
 - : Classification of Instructional Programs (CIP): The Department of Education (DE) has begun revision of its major educational classification. NCDC support for the revision is expected to include development of crosswalks to the new occupational classifications and distribution of these files and other CIP-related information developed by DE and others. The NCDC, in cooperation with DE, NOICC and others, will develop links to occupational classifications and support the DE in their revision of another classification: the Classification of Educational Subject Matter.

- ❑ *Support for ALMIS:* A major ETA initiative is the development of the ALMIS Database. This database is made up of a series of tables and is designed to be a depository of various labor market, occupational and other information used in a wide variety of ETA projects. The center has supported states in their efforts to populate their own versions of the database since a consortium of state and federal agencies was formed to manage the database structure. NCDC staff have attended all meetings of the ALMIS Database Maintenance Consortium and will continue to do so. The center will also advise the consortium and the states on its activities and the potential incorporation of new classifications and other resources into the database. During the upcoming year, we expect to update the files we distribute to version 2.0 of the database structure, update the standardized data tables we develop and explore the development of additional data tables.

- ❑ *Internet Activity:* The Internet has changed the way the NCDC does business. Virtually all file distribution now uses that medium. The center manages a number of Internet resources. We expect significant changes to each:
 - : NOICC Home Page (www.noicc.gov): Federal legislation has redefined responsibility for NOICC's functions and as a result, the committee will no longer exist after June 30, 2000. Shortly after that, the NOICC home page will disappear from the Internet. Before that happens, the NCDC and NOICC will develop a plan for identifying features of the page that will be transferred to another organization, usually the NCDC or the

Department of Education. Material will also be developed for the NOICC home page describing the upcoming changes.

- : NOICC FTP Server (ftp.noicc.gov): This service has become increasingly valuable to the NCDC as a method for delivering its products and services. We plan to continue to operate the service. The server will be incorporated into another domain, e.g., one of the ALMIS projects, or a new domain name will be secured.
- : Licensed Occupation Information System (LOIS -- www.lois.noicc.gov): ETA has announced plans for including licensing information in America's Career Information Network and hired a contractor to assist the states in development of the information. NCDC staff will work with the states which are developing the information and ETA's contractors to ensure the smooth transition of this information to its new location.
- : NCDC Home Page (www.state.ia.us/ncdc): The NCDC home page will become increasingly significant. Most of the center's Internet activity involved maintenance of the NOICC Home page. We expect that much of the information contained on that page will become part of the NCDC Web effort.
- : SOICCnet: The NCDC established this Internet resource exclusively for communication between NOICC and the SOICCs in November, 1998. This resource may assume increasing importance as communication between NOICC and the SOICCs increases during the upcoming transition.

- *Resource Revisions:* The analysis of demand for NCDC products illustrated the importance of revisions to federal resources to demand for services. A number of resource revisions are expected during the upcoming year. We expect that classification revisions will overshadow revisions in other resources during the upcoming year. Nonetheless, some resources will be revised, including:

- : National employment projections and the *Occupational Outlook Handbook*. These BLS resources are major building blocks for the occupational information contained in many systems.
- : *Military Occupational and Training Data:* This Department of Defense resource should be available by the summer of 1999 and will include updates to the new civilian classifications.
- : Clearinghouse files: The NCDC has for several years distributed to the states file containing information about the occupations of persons completing apprenticeship and Job Corps training programs and those leaving the military service. An update to these data is planned, formatted for inclusion in either the ALMIS Database or OLMID.
- : Units of Analysis: NOICC has revised their prototype units of analysis following the release of new national employment projections by BLS. The November 1997 release of new projections will prompt a revision of the NOICC files. Since key NOICC staff are no longer available for this revision, the NCDC expects to produce the revision.

- *Conferences, Training:* A number of factors are expected to contribute to a fairly heavy travel and training schedule for NCDC staff during the next year. Included are:

- : Support for ALMIS: The NCDC serves as a consultant to the ALMIS Database

Consortium and provides services to the states in support of the database. NCDC staff will attend the quarterly consortium meetings, the Labor Market Information Forum in St. Louis in November, and ALMIS-specific training to further develop their knowledge base in support of the project.

- : Career guidance system conferences: Significant revisions to classification systems and rapid change in the technology used to deliver information necessitate continual communication between the center and developers of computerized career guidance systems. These developers have traditionally been major users of NCDC services. Center staff expect to attend both the midwest conference and the annual conference of the Association of Computer-based Systems for Career Information (ACSCI) in New Orleans.
- : Technology changes: During the reporting period, the NCDC embraced Microsoft Windows NT as its platform of choice for providing both network and Internet services. The expected 1999 release of version 5.0 of the operating system and the anticipated enhanced capabilities of the new release will require training for NCDC staff.

**ATTACHMENT
20 Most Downloaded/viewed Files:(98-99)**

File Name	Down-loads	Description
/almis/README.TXT	176	Description of available crosswalk files Information about ALMIS files available on the server
/download/XWALKS/Descriptions	159	Descriptions of available crosswalk files
/download/XWALKS/XWALKV43.EXE	154	NOICC Master Crosswalk, Version 4.3
/almis/whatsnew.txt	128	Changes in ALMIS file availability
/download/MATRIXUS/File+Information	87	Information about files in the projections directory
/download/XWALKS/BLSXW96.EXE	85	Bureau of Labor Statistics OES-DOT crosswalk
/download/MATRIXUS/README.TXT	71	Information about national employment projections files
/download/XWALKS/XWALK95.EXE	71	Crosswalk from military occupations to the OES, Census, CIP, etc.
/almis/fox26/LOOKUP/oescode.dbf	70	ALMIS OES lookup table
/almis/fox26/LOOKUP/oescode.fpt	70	Memo file for ALMIS OES lookup table
/download/OCCNAMES/Descriptions	70	
/download/OCCNAMES/File+Information	67	
/download/OOH9899/a_readme.txt	66	Information about OOH files on the server
/almis/ALMISDB.DOC	65	Data dictionary for the ALMIS Database (no longer available)
/download/OESWAGE/a_readme.txt	60	Information about OES wage files on the server
/download/XWALKS/oescxip.exe	59	OES to CIP crosswalk file
/almis/fox26/DATA/a_readme.txt	58	Information about
/download/video/index.txt	56	Listing of the career video files on the server
/download/XWALKS/blsfile.exe	54	
/download/MILITARY/MOTDIN97.DOC	51	

20 Most Downloaded/viewed Files:(97-98)

File Name	Down-loads	Description
/download/XWALKS/Descriptions	105	Description of available crosswalk files
/download/XWALKS/XWALKV43.EXE	105	NOICC Master Crosswalk, Version 4.3
/almis/README.TXT	95	Information about ALMIS Database files on server
/download/XWALKS/BLSXW96.EXE	78	1996 BLS OES-DOT crosswalk
/almis/ALMISDB.DOC	67	Document containing ALMIS Database structure
/download/OCCNAMES/Descriptions	58	Description of available occupational files
/download/MATRIXUS/README.TXT	54	README file for national employment projections
/download/XWALKS/XWALK95.EXE	50	Crosswalk from military occupations to the OES, Census, CIP, etc.
/download/MATRIXUS/bls2006.exe	47	
/almis/data/README.TXT	42	List of ALMIS Database data files available
/almis/APPEND_A.DOC	37	ALMIS Database lookup table values
/download/MATRIXUS/MATRIX96.EXE	35	1996-2006 BLS Employment projections
/download/MISC/acsclist.doc	35	
/download/XWALKS/OU DOT.EXE	35	Crosswalk between O*NET and the DOT
/download/XWALKS/dotcen80.dbf	35	Crosswalk between 1980 census occupations and the DOT
/download/ONET/OU DOT.EXE	34	Crosswalk between O*NET and the DOT
/almis/data/ANALYSIS.DBF	32	Units of analysis descriptive information for the ALMIS Database
/download/MILITARY/MOTD97AC.EXE	31	1997 Military Occupational and Training Data (Access format)
/download/ONET/OUDEF.EXE	31	Definitions of O*NET occupations
/almis/xwalk/OESXDOT.DBF	29	ALMIS Database OES to DOT crosswalk