

NOICC Crosswalk and Data Center

**Annual Report
July 1, 1996-June 30, 1997**



January 20, 1998

NOICC Crosswalk and Data Center Annual Report

Introduction

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. 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.

Demand for custom products based on the database that was the source of information in the VPO 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 other customers 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 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 nearly \$3 million dollars in the operation of the NCDC during the past 15 years.

NCDC 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. Never has the magnitude of change faced by NCDC staff been as great as it was during the period covered by this report. One of the major changes was a physical relocation, during September 1996 of the Iowa SOICC, including the NCDC, from the Iowa Department of Economic Development (IDED) to Iowa Workforce Development (IWD), the state's employment security agency. This move had a major technological impact, moving the SOICC's local area network from a homogenous ethernet environment into the new agency's token-ring environment.

Significant NCDC resources, in both time and money, were dedicated to regaining the capabilities the SOICC possessed at IDED. For example, NCDC access to electronic mail had not been established through IWD at the end of the reporting period. The change in the environment forced the NCDC to adapt technology that will eventually provide significant advantages. However, the magnitude of the changes experienced over a relatively short period of

time did provide significant challenges. To a large degree, this illustrates the extent to which the center has become more sensitive to its technological environment. When its products consisted largely of mainframe-generated printed reports and tapes, access to the state's mainframe computer system through a terminal was the only major requirement. As the products have shifted to microcomputer media, and as the technological sophistication of PC-based networks has increased, the center's connectivity to outside resources such as the Internet has become paramount.

Another significant change was the switch in funding from NOICC to the Employment and Training Administration of the Department of Labor. 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. In some cases, it can be expected that past NCDC efforts will be broadened to include a new audience. In other cases, new products may be brought to the center's traditional customers. One major function for the center will be to act as a conduit for DOL information to customers outside the DOL network and for non-DOL information into the department's programs.

Support for the NOICC/SOICC Network

The NCDC's primary audience is the NOICC/SOICC network and those committees' constituent agencies. 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:

- OLMID/OIS: 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 anticipated that utilities would be written to extract portions of the data for specific applications and funded development utilities, as part of OLMID, which generated the files for the Micro-OIS, which was redesigned at the same time. The NCDC has supported the development and use of OLMID since the beginning, attending a planning conference in Nashua, NH to present information about the ways in which the center can assist the states and working with the states to define its role. NCDC staff migrated the content of many of its standard files into the format required for OLMID and distributed those files and updates through six mailings to the states, including one during the period covered by this report. As defined in OLMID, the types of files distributed by the NCDC fall into two categories: lookup files and data files. Lookup files include definitions and other descriptive information about the classification systems used in the database and the relationships among those classifications (crosswalks). The data files included some national information as well as some state and substate data gathered from federal sources by the center.

- State Training Inventory (STI): NOICC has long sponsored the collection and distribution of state-based training information. Under grants from NOICC, first the New Jersey SOICC and then, since 1994, the NCDC have solicited institutional and training program information from the states, validated the consistency of the files furnished by the states and distributed updated STI systems, including software and data for the geographic area specified by the states. Two features of the STI program are unique: the sharing of information among states, and the system's ability to allow states to include unique (non-standard) programs in their data.

- NCDC Outreach: NCDC staff attend various conferences and meetings at which its customers are likely to 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 conferences:
 - ✓ JETT*CON in Washington D.C. during July 1996. NCDC staff provided support at a booth highlighting the OLMID and Micro-OIS.
 - ✓ Labor Market Information Forum in Norfolk VA during October 1996.
 - ✓ A planning meeting with NOICC staff in Washington in October during which NOICC's presence on the Internet was examined and the NOICC home page was redesigned.
 - ✓ Midwest Career Information Delivery System (CIDS)/National Technical Conference in Kansas City in May 1997.

- NOICC's Licensed Occupation Information System (LOIS): During the report period, NOICC hired a private contractor to develop an Internet-based database search system. In some ways, the resulting LOIS system is similar to STI. Information is gathered from the states and is sent to a centralized point, with distribution from there. The difference is in the distribution method. STI data, along with systems for accessing them, are distributed to the states on disk, with the included geography decided by the receiving state. LOIS, on the other hand, distributes information over the Internet, with data for all participating states available to all.

- Internet Services: The NCDC developed the initial NOICC home page on the World Wide Web in 1995. The initial effort was based on one of NOICC's series of occupational papers titled *To Spin a Web--Job, Career and Labor Market Information on the Internet*. This paper inventoried labor market, career and other information sources available on the Internet to planners, jobseekers and others. During the period covered by this report, NCDC staff met with NOICC to plan a major revision to the NOICC home page and implemented the redesign. The NCDC continues to sponsor the NOICC listserver as part of the State of Iowa's Internet services. A listserver 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.

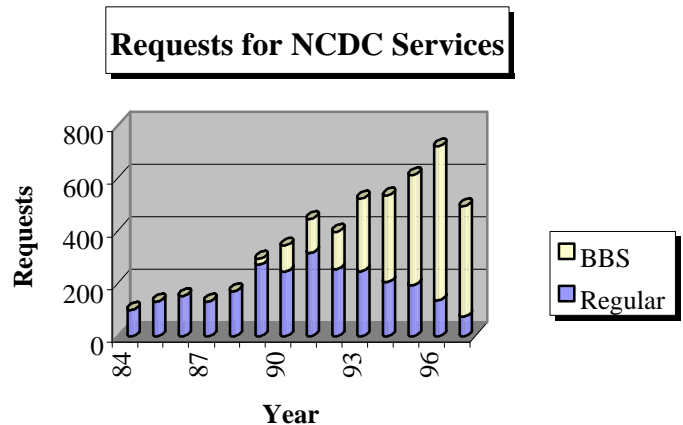
Analysis of NCDC Requests

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 were apparent during the period covered by this report. The first trend is the continuation in the shift in the ways in which NCDC products are delivered. The center has operated an electronic bulletin board, the NCDC BBS, since 1989. This system allows NCDC customers to retrieve files with no assistance from NCDC staff and frees 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 grow significantly as the Internet becomes a major distribution mode for the NCDC. To some degree the growth of the Internet may contribute to a 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 NCDC has committed to maintain its BBS as a low-technology alternative to the Internet.

The second trend evident in the accompanying graph is the apparent decline in demand for NCDC services. The pending revisions to classification systems by federal agencies contributed significantly to this decline. The Bureau of Labor Statistics, following a long series of annual revisions to their crosswalk file linking the Occupational Employment Statistics (OES) classification to the Dictionary of Occupational Titles (DOT) did not prepare a revision in 1996. Resources that would have been committed to this revision were diverted into development of a new Standard Occupational Classification (SOC), which will serve as the basis for the OES when completed. Since revisions to the BLS crosswalk file generally have driven new versions of the NOICC Master Crosswalk, a new version of the NOICC file was not developed for the first time since 1992. The demand for the most current versions of classification systems and crosswalks drives NCDC activity to a large degree. Since there were no revisions, there was no activity to reflect what would have been distribution of those resources. The decrease in demand for NCDC services reflects a lack of new material from federal agencies, rather than a lessening of interest by the center's customers.



The lack of new federally-produced occupational resources is reflected in demand for both BBS and non-BBS delivered products. In addition to the lack of classification and crosswalk revisions, the production cycle for some Bureau of Labor Statistics products also effected demand for NCDC services. BLS produces new occupational projections and a new version of the *Occupational Outlook Handbook* and related products every second year.

Demand for Specific NCDC Products (Non-BBS Requests)			
Product	Year ending June,		Percent Change
	'96	'97	
NOICC Master Crosswalk	26	9	-65.4
Dictionary of Occupational Titles	31	18	-41.9
Classification of Instructional Programs	12	5	-58.3
Occupational Outlook Handbook	3	1	-66.7
MOTD/Other Military	13	3	-76.9
National Projections	6	2	-66.7

Neither was produced during the period covered by this report. Files based on these products are distributed by the NCDC. Non-BBS demand for each of these products declined by two-thirds. Similar declines occurred for other major NCDC products.

The contribution of the availability of new products to demand for NCDC products is evident when recent download activity from the NCDC BBS is analyzed. Accompanying tables contain lists of the files which have been downloaded most frequently during three periods: since the beginning of the service and during each of the past two years. Two of the three most downloaded files are versions of ALLFILES, a listing of all files available for downloading from the BBS. Demand for these files reflect the service's continual addition of callers and constant availability of the files. Most of the other files on the system have been updated several times, so that their demand is divided among several versions over time.

Analysis of download activity during each of the two most recent years reinforces the significance of file revisions. During the year ending June 1996, each of the top ten downloads was new during the period; many were revisions to earlier files. Two subject areas were of particular interest to NCDC BBS callers: O*NET, the Department of Labor's replacement for the Dictionary of Occupational Titles, and OES, projections and Occupational Outlook Handbook (OOH) files from BLS. None of these resources were revised during the latter

NCDC BBS Top Downloads
1991-1997

File Name	Description	Downloads
ALLFILES.EXE	List of files on NCDC BBS	65
BLSXW95.EXE	1995 BLS OES-DOT Crosswalk	56
ALLFILES.TXT	List of files on NCDC BBS	55
ODDOT.EXE	O*NET-DOT Crosswalk	54
BLSXW96.EXE	1996 BLS OES-DOT Crosswalk	54
BLSXW94.EXE	1994 BLS OES-DOT Crosswalk	53
MTRX94A.EXE	1994-2005 Projections--part 1	52
DOTCEN40.EXE	DOT to 1990 Census Crosswalk	49
SURD8896.EXE	1988-96 OES Survey Dictionary	49
OIS0226.EXE	Micro-OIS Software Patch	49

NCDC BBS Top Downloads
Year Ending June 1996

File Name	Description	Downloads
OIS0226.EXE	Micro-OIS Software Patch	46
ODDOT.EXE	O*NET-DOT Crosswalk	36
MTRX94A.EXE	1994-2005 Projections--part 1	33
OUDEF.EXE	O*NET Definitions	33
BLSXW95.EXE	1995 BLS OES-DOT Crosswalk	27
MTRX94B.EXE	1994-2005 Projections--part 2	26
OUDEF.TXT.EXE	O*NET Definitions--text file	26
SURD8895.EXE	1988-95 OES Survey Dictionary	24
MOTD95FX.EXE	1995 MOTD--FoxPro Version	24
SURD8896.EXE	1988-96 OES Survey Dictionary	23

NCDC BBS Top Downloads
Year Ending June 1997

File Name	Description	Downloads
BLSXW96.EXE	1996 BLS OES-DOT Crosswalk	33
SURD8896.EXE	1988-96 OES Survey Dictionary	26
TITL8896.EXE	1988-96 OES Titles	21
ALLFILES.EXE	List of files on NCDC BBS	20
MTRX94A.EXE	1994-2005 Projections--part 1	19
ODDOT.EXE	O*NET-DOT Crosswalk	18
MTRX94B.EXE	1994-2005 Projections--part 2	16
DOTMAT94.EXE	DOT to Matrix Occupation Crosswalk	14
DOTOESAT.EXE	DOT to OES with DOT Attributes	14
CPSOCC95.EXE	CPS Occupational Data for 1995	14

period, which contributed to an overall lower level of BBS activity. However, the same types of files were most in demand during the period; the number of files downloaded was just lower.

Anticipated NCDC Activities

During times of rapid change, planning for changes in the mix of products and services offered by the center becomes critical. The change in the source for NCDC funding on July 1, 1997 from NOICC to the Employment and Training Administration (ETA), makes the planning process even more complex, since it introduces new customers and products. At the time this report was written, NCDC staff have anticipate the following major activities for the following year:

- ❑ **More Internet Activity:** Work on the LOIS system was limited to data gathering and system testing during the period covered by this report. During the following months, we expect to place the LOIS system on the Internet, continuing the data gathering activities and further refining the center's database manipulation capabilities. We also expect to expand file delivery to include an Internet FTP (file transfer protocol) server. This will allow NCDC customers to retrieve files over the Internet and makes the center's resources much more accessible to a wider audience. NCDC staff will continue to maintain and enhance the NOICC and NCDC home pages on the World Wide Web. As the potential for using the WWW for service delivery grows, it's vital that the NOICC/SOICC network's use of those resources constantly be reviewed and enhanced to take advantage of the technology.
- ❑ **STI Evolution:** The State Training Inventory has operated virtually unchanged since its beginning. NOICC is actively involved in a potentially related activity sponsored by the ETA. This project, Americas Learning eXchange or ALX, is designed to provide a variety of training-related information over the Internet. Included among this information could be institutional and training program information similar to that contained in STI. In addition, the software used by states to access their STI databases is the same DOS application developed at the start of the project. The questions about the future of STI are many:
 - ✓ Is it in the best of the interest of the network to continue STI? And, if so, in what form?
 - ✓ Can STI information be gathered by states over the Internet?
 - ✓ What will the relationship be between STI and ALX?
 - ✓ Has the state of technology reached the point at which the STI software should be redesigned? If so, should the scope of the system be expanded?
- ❑ **Support for ALMIS:** A major initiative of the ETA is the development of the ALMIS (America's Labor Market Information System) 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 ALMIS database was developed by ETA, NOICC, an ETA consultant and others, based on NOICC's OLMID database and a system developed by the state of North Carolina. The NCDC has

supported NOICC's OLMID efforts for several years, and extension of this support to ETA and the states as they develop their versions of the ALMIS Database would appear to be logical. Tools developed by the NCDC can be made readily available to all states through the Internet FTP service described above.

- Classification revisions: Revisions to a number of classifications and releases of other, new classifications are expected in the year following the period covered by this report. Three major revisions will have significant impacts on NCDC customers and the center's activities:
 - ✓ Standard Occupational Classification (SOC): The Bureau of Labor Statistics is leading the effort to revise this classification and make it a true standard adopted by programs using occupational classifications. We expect that the NCDC will develop and/or distribute tools useful for linking the new SOC to legacy classifications used by the center's customers. Beginning in 1998 the new SOC will serve as the basis for the other major occupational classifications used by the federal government.
 - ✓ O*NET: The Department of Labor has been developing the O*NET, its replacement for the Dictionary of Occupational Titles for several years. A general public release of expected sometime in 1998. Just as assistance in use of the DOT and its relationships to other classifications has been a very significant NCDC activity, assistance in the use of its replacement could be a key to the center's future. The Department of Labor is considering significant restrictions on use and distribution of products based on O*NET, which could have an impact on the services the NCDC is able to provide.
 - ✓ Classification of Instructional Programs (CIP): The Department of Education has begun revision of its major educational classification. NCDC support for the revision is expected to include products relating to the new occupational classifications and tools to aid in targeting resources during the revision. After the CIP revision is complete, the NCDC will develop links to occupational classifications and support the Department of Education in their revision of another classification: the Classification of Educational Subject Matter. This revision could be key as both occupational and educational classifications go beyond their traditional modes and begin dealing more with the individual skills and tasks which make up occupations.

- 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. The NCDC expects to distributed updated versions of the following resources:
 - ✓ National employment projections: Released by the Bureau of Labor Statistics in November 1996.
 - ✓ *Occupational Outlook Handbook* and related resources: Released by BLS in January 1998, with the related *Occupational Projections and Training Data* released shortly thereafter.
 - ✓ *Military Occupational and Training Data*: This Department of Defense resource should be available by the summer of 1998 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 the ALMIS Database.
- ✓ 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 consortium meetings and may also attend ALMIS-specific training to further develop their knowledge base in support of the project.
 - ✓ NOICC/SOICC activities: It's expected that the NOICC/SOICC network will once again hold an annual conference, which NCDC staff will attend. In addition, NOICC strategic planning activities and possible enhancements to the NOICC home page may require NCDC travel.
 - ✓ 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 in Tulsa OK 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 impending release of a new version of the operating system and the anticipated enhanced capabilities of the new release will require training for NCDC staff.