

ANNUAL REPORT
National Crosswalk Service Center
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Iowa State Occupational Information Coordinating Committee
Iowa Department of Economic Development
200 East Grand Avenue
Des Moines, Iowa 50309

Telephone (515)281-8076

Introduction

The National Occupational Information Coordinating Committee (NOICC) is a federal multi-agency cooperative program involving a number of federal agencies and programs. NOICC is charged, among other responsibilities, with supporting the development of Occupational Information Systems by the states.

An early step in OIS support was the development of the Vocational Preparation and Occupations (VPO) crosswalk linking occupations and vocational training programs. The database was developed in 1979 to enable the development of a publication containing those links. Soon, however, demand for the database outstripped NOICC's staff and data processing resources, and NOICC turned to the Iowa SOICC to provide products and services based on the VPO to the states. These services were provided under small non-competitive grants starting in 1983. In 1985 NOICC announced a competitive request for proposals for operation of the National Crosswalk Service Center. The grant was awarded to the Iowa SOICC for a three-year period.

Competition for the NCSC was reopened for proposals early in 1988, with the Iowa SOICC once again awarded the contract. This status report covers the first eleven months of the first year of the second competitive grant.

Activities

Introduction

Demand for NCSC products and services increased greatly during the first year of the current grant. NCSC staff received 272 request for products and services during the year, up 59 percent from the previous year. Part of this increase is cyclical and can be attributed to the release of a new version of the NOICC Master Crosswalk just before the period began. However, an increasing number of requests resulted from referrals to the NCSC by NOICC, BLS and others. The number of requests for NCSC services during each of the past six years is presented below.

NCSC Requests

Year	Requests	% Change
1983	100	--
1984	132	32
1985	153	16
1986	132	-14
1987	171	30
1988*	272	59

* All years are calendar years except 1988 (4/1/88 to 3/31/89)

Providing products and services to the NOICC/SOICC Network and others, along with the maintenance of the NOICC Master Crosswalk, is the most critical part of the project and has demanded the bulk of the resources expended. The Iowa SOICC has been providing products and services based on the NOICC Master Crosswalk and other occupational databases for nearly five years. During the first year of the current grant, the Iowa SOICC, through the NCSC, has responded to nearly 300 requests for information, and an equal or greater number of requests for technical assistance and advice. During this period, a number of changes have been evident:

- NCSC users have become more sophisticated and knowledgeable about the crosswalk and its potential uses. They are better able to define their needs for information in a manner which is addressable using the tools available through the NCSC. Users without access to data processing resources frequently prefer to design their own reports. For example, one user requested reports similar to the SOC Career Profiles, but based on the MOTD and OES classification systems. In each case, the report contained a narrative description of the occupation (taken from the MOTD and the OES Survey Dictionary), followed by the frequency and percent distributions of DOT characteristics for related DOT occupations similar to that included in the SCP. In developing these special reports, along with hundreds of others, thousands of lines of source code have been developed that in many cases can be used over and over again, reducing the amount of time it takes to produce these special reports.
- Users are interested in manipulating the crosswalk themselves in a variety of ways, leading to a substantial increase in demand for crosswalk products, particularly in a microcomputer format. The NCSC received 109 requests for microcomputer products during the current year. This continues the steady growth in demand for microcomputer products which has been evident since three requests for that type of product were received in 1985. Demand increased to 30 requests in 1986 and 64 in 1987. As the use of microcomputers has become more pervasive, users have requested additional files in microcomputer formats. A list of the major files currently available for PC usage from the NCSC follows:

- - NOICC Master Crosswalk
 - SOC Career Profiles
 - CIP Manual
 - OES Survey Dictionary
 - 1987 OES National Matrix
 - Military Occupational and Training Data
 - DOT Definitions (90% complete)
 - AMA CAHEA Database
 - NOICC Prototype Units of Analysis

- The number of private sector individuals and firms using the center has increased substantially. This has occurred largely because of referrals by the ETA, North Carolina Occupational Analysis Field Center, NOICC and other SOICC's, and has greatly increased demand for NCSC products and services.

Services to NOICC and its Members

Over half of the requests received were from members of the NOICC/SOICC network. Requests from NOICC and its member agencies totaled 20 during the period, supporting a number of NOICC initiatives and constituencies. A summary of some of the significant requests follows:

Several printed reports were developed for **Job Corps** dealing with occupations by SVP and related vocational training programs.

Reports were developed for **Vocational Rehabilitation** showing potential uses of DOT attribute information for their purposes.

Microcomputer files containing the NOICC Master Crosswalk, OES Survey Dictionary and national OES matrix rollups were provided to **NOICC**.

A printed report was prepared for the **U.S. Senate Committee on Labor and Human Resources** containing the DOT occupations with a low Specific Vocational Preparation (SVP) rating. The committee planned to use this listing as background information while working on the federal minimum wage bill.

Services to SOICC's

Requests for products and services were received from 48 different SOICC's during the year. Of those SOICC's, 22 used their entire \$200 credit and 14 were billed for additional services. Some trends were also evident among SOICC users of the NCSC. First, SOICC's are much like other users, and are increasing their use of microcomputer products. Second, demand for file transfer services by SOICC's appears to be holding steady or increasing. With a planned emphasis on alerting SOICC staff to the availability of these services, this could be an important part of the NCSC's function.

Support of NOICC Initiatives

The NCSC supported a number of NOICC initiatives during the year. A brief summary of this support follows:

Microcomputer files containing extracts from AMA's CAHEA database were provided to the database manager for use in the **CIVTRAIN** project.

Several copies of the Industry/Occupation Matrix and Training Directory modules for the NOICC prototype Microcomputer **Occupational Information System** were distributed to SOICC's

NCSC staff met with staff from BLS, the Utah Occupational Projections Field Center and other states to develop a database to permit enhanced, more detailed estimates of self-employed and unpaid family workers by states using the **Micro Matrix** occupational projections system.

The NCSC distributed the **Military Occupational and Training Data** in a microcomputer format to facilitate the inclusion of military occupational information into Career Information Delivery Systems. The NCSC also developed special crosswalk reports incorporating portions of the MOTD for several CIDS developers.

Other Significant Accomplishments

During the first year of this grant, NCSC staff also accomplished a number of other significant projects, including:

Responsibility for maintenance of the **DoD Master Crosswalk** was successfully transferred to the Defense Manpower Data Center. The DoD Master Crosswalk was developed by the Iowa SOICC and a subcontractor under a grant from NOICC. The DoD expressed an interest in continued maintenance of the database by DMDC, and files containing the NOICC Master Crosswalk and programs to aid in the updating of the DoD crosswalk were provided, along with documentation, to DMDC.

The NCSC began operation of an **electronic bulletin board** service. This service allows users with access to a microcomputer, modem and communications software to call the service and obtain files containing occupational information developed by the NCSC. Because of computer hardware limitations, the service was initially available only during non-business hours. However, acquisition of an additional computer has permitted the system to operate around the clock. Daytime availability, a greater selection of files and increased publicity about the availability of the system is expected to increase usage during the second year of the grant. A listing of the files available follows:

File	Extension	Size	Description
CHANGES	SOC	5,742	Changes in SOC Assignments, 1986 DOT Supplement
CIP6DIG	DBF	423,404	6-digit CIP Program Definitions
CIPMAN	TXT	440,704	Text file-6-digit CIP Definitions
COLLAPSE	DBF	51,978	OES Collapses: 1987 BLS Matrix
CONTENTS	DBF	93,268	Contents: OES Survey Dictionary
CTCEN	DBF	512	1980 Census Codes & Titles-Structure
CTCEN	TXT	35,551	1980 Census Codes & Titles-Data
CTCIP	DBF	512	1985 CIP Codes & Titles-Structure
CTCIP	TXT	32,309	1985 CIP Codes & Titles-Data
CTGOE	DBF	512	GOE Codes & Titles-Structure
CTGOE	TXT	32,871	GOE Codes & Titles-Data
CTMAT	DBF	512	OES Matrix Codes & Titles-Struc.
CTMAT	TXT	60,342	OES Matrix Codes & Titles-Data
CTSOC	DBF	512	1980 SOC Codes & Titles-Structure

File	Extension	Size	Description
CTSOC	TXT	36,937	1980 SOC Codes & Titles>Data
CTSUR	DBF	512	OES Survey Codes & TitlesStruc.
CTSUR	TXT	58,161	OES Survey Codes & TitlesData
DOT88	DBF	129	DOT Codes & TitlesStructure
DOT88	TXT	435,712	DOT Codes & TitlesData
DOTTHREE	TXT	30,746	Three-digit DOT Codes & Titles
DOTTWO	TXT	6,637	Two-digit DOT Codes & Titles
ERRATA	DOT	1,333	Changes--1986 DOT Supplement
INDEX	DBF	129	Complete listing: 1985 CIP Codes & Titles-Structure
INDEX	TXT	93,416	Complete listing: 1985 CIP Codes & TitlesData
NEWDOT	TXT	5,632	Changes in DOT attribute Coding
SURVDICT	DBF	379,358	OES Survey Dictionary
TECH	TXT	11,264	Technical DescriptionVersion 3
XFIX	SAS	8,756	SAS Program-Update Crosswalk
XFIX1	PRG	10,041	dBASE Program-Update XWALK(INDEX)
XFIX2	PRG	10,833	dBASE Program-Update XWALK(No INDEX)
XWALK85	DOC	36,992	General Description1985 Crosswalk
XWALK88	DOC	52,224	General DescriptionVersion 3
TOTAL	32	2,357,541	

The NCSC increased its microcomputer capacity in order to better deal with the growing demand for PC products. Procurement included one Compaq Deskpro 386/20 microcomputer and network software and hardware. This permits two NCSC staff to have access to the files stored on the network file server. Some further expansion is still desirable, however, the acquisitions described above represent a major advance. The increased processing power and storage of the Compaq computer have allowed an increasing number of requests to be run on the microcomputer, utilizing either Foxbase of SAS/PC.

The NCSC began development of software for processing the NOICC Master Crosswalk on microcomputers. Development of the initial version of the software was largely completed during the period.

NCSC staff participated in a number of training sessions and conferences, including:

Steve Rosenow presented information about the NCSC and NOICC Master Crosswalk at the annual SOICC Directors' Conference in Charleston, South Carolina.

Allan Beidler participated in the projections workshop held in Sparks, Nevada.

Allan Beidler attended training provided by the SAS institute dealing with using SAS software for processing data. SAS training is not available in the Des Moines.

Allan Beidler presented a paper detailing NCSC experience in migrating data

processing functions from a mainframe to a microcomputer environment to a National Governors' Association conference.

Plans and Expectations

Support for NOICC

The NCSC will continue to provide support to NOICC, its member agencies and initiatives. Products and services will be furnished to NOICC at no cost, and NCSC staff will work with NOICC to develop products which may meet needs of its member agencies. Technical support will be provided to a number of NOICC initiatives, including the Micro Matrix system, CIVTRAIN and COLMIS. In addition, the NCSC will emphasize its function as a clearinghouse for national databases which are useful to the NOICC/SOICC network, including military separatees, the AMA CAHEA database and the Institutional Characteristics file from IPEDS.

Support for SOICC's

The NCSC will continue to provide up to \$200 worth of products and services to each SOICC upon request. In addition, the center will emphasize its file transfer capabilities in an effort to aid SOICC's data development efforts.

Following an analysis of calendar 1988 mainframe data processing costs (see appendix), a revised pricing structure will be implemented. The only significant changes will occur in the prices of microcomputer products, which will generally decline. The revised pricing structure appears below:

	1988	1989
Standard Reports		
Laser Print	\$40	\$40
Standard Print	45	40
Custom Reports (average)*	50	50
Files on Tape		
First File	65	65
Subsequent Files	15	15
Microcomputer Disks (5.25 inch)		
360 KB	12	5**
1.2 MB	20	5**
Microcomputer Disks (3.5 inch)		
770 KB	20	5**
File Transfers		10/MB

*Report using only one database, the crosswalk. Reports incorporating multiple databases or complex sorts or outputs would cost more.

**Cost will be \$5 per disk plus \$25 per order. Based on an assumed 200 requests and fixed data processing costs of \$5,400 (Appendix).

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Planning for the 1990 Census

As NOICC plans for its needs for data from the 1990 census, the NCSC is in a unique position to analyze the ways in which the data from the previous census was used by the NOICC/SOICC network, and to help determine what types of data will be needed from the next census.

Crosswalk Software

The NCSC shall continue development of software for processing the NOICC Master Crosswalk on microcomputers. The initial version of the program and documentation will be made available to the network, and enhancements will be planned based on feedback received from users. Additional features will be developed to allow users to display the narrative descriptions of training programs and occupations from the **Classification of Instructional Programs** and **Dictionary of Occupational Titles**. The addition of these two features will increase the storage requirements for the total system to nearly 30 MB. Because few users will have this much storage to devote to this use, the system will be designed so that users can tailor system features and storage requirements to their needs.

Bulletin Board Service

The NCSC shall continue to operate the electronic bulletin board and to develop files for the system. An increasing effort will be made to publicize the existence of this service.

Occupational Information System Support

The NCSC will survey the states to update information on features in the current microcomputer OIS's. Should funding be available, the NCSC may also contract for the development or adaptation of one of the current state systems to be the new NOICC prototype OIS.

Microcomputer Capabilities

The NCSC shall continue to upgrade its data processing capabilities. Initial plans call for the following acquisitions during the second year of the grant:

- 9-track tape drive
- Connection of two more work stations to the network
- Laptop computer for use at conferences
- Increased storage for network file server

Conference Participation

NCSC staff will present information about NOICC, the NCSC and the NOICC Master Crosswalk at conferences at which it is appropriate, including the annual SOICC Directors' Conference, the national technical conference and others. The communications services subcontractor will identify those annual meetings and conferences which would be appropriate.