

A Report on the Operations Of the North Carolina Common Follow-up System May 2014



**NORTH
CAROLINA**
DEPARTMENT OF COMMERCE™

C F S
NORTH CAROLINA
COMMON FOLLOW-UP SYSTEM

LEAD
LABOR & ECONOMIC
ANALYSIS DIVISION

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A REPORT ON THE OPERATIONS OF THE NORTH CAROLINA COMMON FOLLOW-UP SYSTEM (CFS) MAY 1, 2014

THE PURPOSE OF THE COMMON FOLLOW-UP SYSTEM

The purpose of the Common Follow-up System (CFS) is to provide information on the educational and employment outcomes of participants in publicly supported educational, employment and training programs for use in planning, policy-making, program evaluation, resource allocation and career planning.

WHY A COMMON FOLLOW-UP SYSTEM?

CFS grew out of the recognition by a group of state agencies that quality outcome information was needed on the participants of educational, employment and training programs. This data was essential for program planning, evaluation and resource management. Although each of the agencies conducted independent follow-up studies to fulfill specific programmatic, regulatory or other requirements, information content and collection procedures were specific to each agency. Existing collection methods often were expensive and no mechanism was available for the sharing of information among agencies. No process existed to review outcomes across programs and agencies, to study the relationships among programs and agencies, or to examine results for the system as a whole. In short, there was no consistent method that allowed for the examination of the education, employment and training community. The CFS was developed as a cost-effective response to these limitations.

HISTORY OF THE COMMON FOLLOW-UP SYSTEM

The CFS was developed in 1992 as a cooperative venture of the participating agencies under the auspices of the North Carolina State Occupational Information Coordinating Committee (NCSOICC). The original participating agencies were:

- **the University of North Carolina, General Administration (UNC);**
- **the North Carolina Community College System (NCCCS);**
- **the North Carolina Department of Public Instruction (DPI), Workforce Development Education;**
- **the Employment Security Commission (ESC) of North Carolina;**
- **the Division of Employment and Training (DET);**
- **the North Carolina Department of Human Resources, Division of Vocational Rehabilitation Services (DVR); and**
- **the North Carolina Department of Labor (DOL).**

The participating agencies chose the former Employment Security Commission as the system operator, due to its expertise with large data sets and its responsibility for the Unemployment Insurance wage file. In the initial year, a prototype matching system was developed. This matching system provided a mechanism whereby data submitted by each of the participating agencies were matched to data submitted by each of the other agencies and to employment and wage information in the Unemployment Insurance wage file.

CFS YEARS 1992-1995

Over the first four years of operation, the CFS evolved in terms of processing procedures and system expansion. The system was converted from a single year matching system to a longitudinal database. The longitudinal database structure allowed the tracking of an individual's progress through the workforce system across time, in addition to supporting comparisons at specific intervals or points in time. This conversion also provided the opportunity to study the long-term impact of programs, to examine the interrelationships among agencies in the overall provision of services and to gain a better understanding of the paths individuals follow while utilizing these services. The system grew in terms of both records and individuals processed. The number of individuals processed increased from 674,305 in 1992 to over 2 million in 1995, while the number of agencies grew from 6 to 8 over the same time period.

During the 1995 session, the General Assembly initiated a new chapter in the history of the CFS by enacting legislation that placed new requirements on the system. Chapter 96 of the North Carolina General Statutes was amended to:

- **establish the CFS by statute;**
- **define system participation;**
- **establish operational responsibility with the ESC;**
- **establish programmatic evaluative responsibility with the Office of State Budget and Management (OSBM);**
- **mandate data integrity and confidentiality; and**
- **outline reporting and schedules.**

The ESC was designated as the host agency for the system with the following responsibilities:

- **collection of the required data;**
- **operation, update and maintenance of the system;**
- **provision of assistance to participating entities with the development of seed files and analysis of the enhanced records;**
- **determination, in cooperation with OSBM, of any additional state agencies and other entities not currently participating in the system and a time frame for their inclusion;**
- **determination, in cooperation with OSBM, of any additional data elements required for the system; and**
- **delivery of a system status and operations report to the legislature on or before May 1 each year.**

The North Carolina OSBM was charged with using system outputs in the evaluation of agencies and programs receiving state or federal funds in support of education, employment and training activities.

In addition to the changes mandated by the new legislation, the ESC began work with other groups interested in incorporating CFS information into their program evaluation efforts.

CFS YEARS 1996-2012

Over the next several years, there was increased interest in the data contained in the CFS. Several groups turned to the CFS as a valuable source of quality outcome information for education, employment and training programs. The increased interest was due to initiatives at both the state and national levels regarding the collection, calculation and reporting of performance information throughout the education, employment and training system. These initiatives included the development of reports for the Commission on Workforce Development, SOICC and Work First Business Council.

The Workforce Investment Act (WIA) of 1998 stimulated further interest and attention to the data contained in CFS. WIA mandates the collection, calculation and reporting of performance and accountability measures for workforce training programs operated throughout the state. ESC worked in collaboration with the Division of Workforce Development (DWD) on the development of procedures for the processing, calculation and reporting of the state's WIA performance measures. Information from the CFS along with information from other administrative systems has been, and continues to be, utilized in meeting the informational needs regarding target populations, systems of delivery, accountability, long-term planning and governance structures that are the keystone of the Act.

These initiatives led to continued expansion and refinement of the CFS data collection procedures. System refinement included the initiation of a biannual data collection cycle and system expansion in terms of data elements, system participation, individuals processed, as well as program and service coverage for existing entities. In order to help meet the reporting requirements for WIA, additional data elements were added to the CFS. These new data elements were added to aid in the calculation of performance data required under WIA. During the 2001 Legislative Session the North Carolina General Assembly transferred the evaluative responsibility previously housed in the OSBM to ESC.

In July 2003, North Carolina experienced the largest mass layoff event in the state's history when Pillowtex Corporation closed. Information from the CFS, have been utilized to follow the re-employment and provision of education, employment and training services to former Pillowtex workers. This information has proved to be critical in helping to respond to informational requests from the Governor's office, North Carolina legislature, United States Department of Labor and other stakeholders.

In 2004, the JobLink Management Information System (JobLink MIS) became operational. This system is utilized to collect analyze and report information on JobLink Career Center customers and the services provided to these customers. Beginning with the 2004-2005 CFS year, data from the JobLink MIS was integrated into the CFS.

In July of 2011, the North Carolina General Assembly enacted legislation that transferred the Employment Security Commission of North Carolina to the North Carolina Department of Commerce. The law became effective November 1, 2011. As such, responsibility for the CFS was transferred to the Department of Commerce's Labor and Economic Analysis Division (LEAD).

During the 2012 Session the North Carolina Legislature enacted Session Law 2012-131: which focused on reforming the state's workforce development laws. Part of the law called for the Department of Commerce to improve and strengthen the CFS and to work in collaboration with the Commission on Workforce Development to utilize data from CFS in the development of performance measures for North Carolina's Workforce Development System.

As part of its efforts to improve and strengthen the CFS, the North Carolina Department of Commerce began several initiatives. These included enhancing the technology processes for system processing and storage, enhancing data integrity, updating system documentation regarding agency and programmatic information, and enhancing system outputs.

The Department of Commerce began work on a system upgrade focused on enhancing the system capacity by migrating CFS data from its current mainframe computing environment to a server base platform. The goal for the new technology infrastructure is to help provide the core mechanisms for storing, updating, securing, maintaining, processing, analyzing, and reporting effectively and efficiently from the CFS.

In 2012, the North Carolina Department of Public Instruction was awarded a grant from the U.S. Department of Education to build a State Longitudinal Data System (SLDS). While NCDPI is the lead on the SLDS grant, the project is a collaborative effort of several entities including: the NCDPI, the North Carolina Community College System (NCCCS), the University of North Carolina General Administration (UNC GA), the North Carolina Independent Colleges and Universities (NCICU), and the North Carolina Department of Commerce (NCDOC). The project is in year two of a three year project development cycle. One of the goals of the grant is to establish a link between the proposed SLDS to the employment related data contained in the CFS.

In addition to the CFS enhancements, information from the system continued to assist agency partners in meeting several state and federal performance and evaluation initiatives. Several of the participating agencies utilized data from the CFS to follow the employment and provision of services to former participants of education, employment and training programs.

CFS YEAR 2012-2013

Processing of data for the 2012-2013 CFS year included the addition of over 10 million program records for over 2.3 million individuals. This increased the total number of individuals in the system to over 8.8 million and the total number of program records to over 145 million.

Over the past year, several initiatives have been undertaken to improve the CFS. As previously discussed, CFS contains an extensive and diverse set of data; however the information technology utilized to store, retrieve, and analyze the data had become severely dated and was in need of improvements. Session Law 2012-131 requires the Department of Commerce to improve and strengthen the CFS. As part of these efforts, the Department of Commerce has been working on enhancing the technology processes utilized for system processing and storage, enhancing data integrity, updating system documentation regarding agency and programmatic information, expanding data coverage, and enhancing system outputs. The overall goal is to bring the system to full operational capacity and to ensure that the system is flexible to grow to meet future needs.

As part of its efforts to improve the CFS, the Department of Commerce applied for a competitive grant with the U.S. Department of Labor's Employment and Training Administration through their Workforce Data Quality Initiative (WDQI). The Department received notification in June of 2013 that North Carolina had been awarded a WDQI grant. The grant covers a three year period ending in June 2016. Grant funds are being utilized to further strengthen and enhance the CFS.

Enhancing Technology Processes

Department of Commerce staff has been working with the State Office of Information Technology Services (ITS) staff to initiate the development of the new system. Work on the business and system requirements for the new relational database structure have been initiated. These requirements will help to further define the final technology solution for the system. The proposed solution will be comprised of a data management system that will support business intelligence software applications and web-based information delivery applications. This new technology infrastructure will provide the core mechanisms for effectively and efficiently storing, updating, securing, maintaining, processing, analyzing, and reporting from CFS.

Ensuring Data Integrity and Updating System Documentation

Staff has taken several steps to enhance data integrity. Staff have reviewed existing data submissions and developed documentation regarding both data structure and content. Staff is continuing to work with the participating agencies to identify and clarify existing data structures and agency specific information and codes. Staff is continuing work on the development of a data dictionary that describes all of the data contained in CFS and documents allowable values for each field contained within the system. This enhanced data dictionary will include field definitions, formats, and meta-data descriptions.

A “Data Submission Survey” was sent to the staff at each of the participating agencies. This survey is intended to help in the enhancement of the CFS, including identifying additional programs or services that should be incorporated into CFS, enhancing the data submissions from each agency, identifying data limitations, and providing necessary information for the completion of the enhanced data dictionary.

Work has been initiated to develop an enhanced data validation process including the development of new edit reports and enhanced processing. This process will validate agency data submissions dynamically by comparing the data submissions from the agencies to the data structures and definitions in the dictionary. This new process will facilitate the validation of data, assist in the loading of new data from the agencies and help to ensure data integrity.

Expanding Data Coverage

While the CFS contains a wealth of information regarding North Carolina’s education, employment and training programs and employment and wage information, data expansion, efforts are needed to enhance the system. As part of its efforts to improve and strengthen the CFS, LEAD staff has and is currently working with agencies to revise previous data submittals and to expand data submittals to include information from education and workforce development programs not previously reported to the CFS. This work has included meetings and consultations with agency staff regarding both the statutory and technical reporting requirements.

In addition to the expansion of programmatic information, the Department of Commerce is working to expand the employment and wage information that is available through the CFS. The state UI wage information includes only those wages paid by employers who are subject to North Carolina’s UI laws. It does not include information regarding the self-employed, those employed in other states or wages paid by federal employers. In order to expand the employment and wage coverage in the CFS, the Department of Commerce has executed an agreement through the U.S. Department of Labor for the exchange of out of state wages through a voluntary data sharing system called the Wage Record Interchange System 2 (WRIS2). In addition, the Department of Commerce is working in collaboration with the North Carolina Attorney General’s Office to execute an agreement that will allow for the integration of employment and wage information from the Federal Data Exchange System (FEDES). This will provide access to employment and wage information from the U.S. Postal Service, U.S. Department of Defense and U.S. Office of Personnel Management.

Enhancing System Outputs

As part of its efforts to enhance system outputs, Labor and Economic Analysis Division staff has been working in collaboration with Division of Workforce Solutions and the Commission on Workforce Development in the development of a set of performance measures for North Carolina’s Workforce Development System. The Commission’s Evaluation and Performance Task Force and Advisory Group is comprised of Commission members and representatives from the workforce agencies and is charged with assisting the Commission with the development of the

performance system. In collaboration with the Task Force and Advisory Group members, LEAD staff completed over 60 sets of analyses in support of the Commission's performance measures project. This work resulted in the development of a set of state wide performance measures. These measures include the employment, wages, and subsequent enrollment in education and workforce development programs. The Division of Workforce Solutions report, "Measuring the Performance of North Carolina's Workforce Development System: A First Look" was completed and delivered to the North Carolina General Assembly in January 2014.

The Task Force and Advisory Group have initiated the next phase of the Workforce Performance Measures project, which includes the development of performance measures for each workforce development program. LEAD staff has begun the research and analyses activities in support of the development of the program specific measures.

In addition to the work with the Commission on Workforce Development, as part of its responsibility for analyzing and evaluating agencies and programs, LEAD has created a prototype information delivery tool – the North Carolina Tool for Online Workforce and Education Reporting (NC TOWER). LEAD staff have registered the NC TOWER with ITS' Enterprise Project Management Office (EPMO) and received approval to proceed with development of the reporting tool. The NC TOWER is currently undergoing testing. This new data delivery tool will facilitate the use and delivery of information from CFS for meeting the program performance and evaluation requirements.

The goal of this tool is to provide a mechanism for the electronic delivery and display of performance measures for a variety of education and workforce programs. Staff completed 10 years of analysis on the post completion employment and wage outcomes for educational programs for each of the University of North Carolina's 16 universities and for all Curriculum programs at each of the 58 colleges of the North Carolina Community College System. LEAD staff has been working in collaboration with staff from UNC General Administration (UNC GA) and the North Carolina Community College System (NCCCS) to develop and refine the reporting tool and to establish the performance information. Staff from UNC GA and NCCCS provided input and feedback regarding the system design, system display and outcome measures. This input and feedback is being utilized to further refine the reporting tool.

The outcome measures include post-graduation employment and wage statistics and enrollment in further education for up to 10 years after graduation. These measures include employment rates, average wages and median wages for each program as well as employment and wage measures by industrial sector of employment. The NC TOWER displays information for each college/university, degree type, and academic subject area.

HOW IS THE COMMON FOLLOW-UP SYSTEM OPERATED?

The participating entities supply biannual data files, which encompass the most current CFS year. For example, for the 2012-2013 CFS year, each entity submitted data files covering the time periods of July 1 through December 31, 2012 and January 1 through June 30, 2013. These

formatted input files were created from existing administrative records and contain demographic data, program enrollment information, and completion information for individuals participating in education, employment and training programs operated by each of the entities.

The records from each entity were matched against data from:

- **all participating entities;**
- **Unemployment Insurance wage records; and**
- **Unemployment Insurance files.**

HOW ARE CFS DATA PROCESSED?

Each year CFS staff issue a request for data to each of the participating entities. The entities submit data files containing the following information:

- **agency identification (e.g., UNC, DPI, etc.);**
- **institution identification and name (e.g., the name of the Community College attended);**
- **Social Security Number, name, sex, race, date of birth, educational attainment, veteran status;**
- **program code and name (e.g., course of study number, course of study name);**
- **program entry and program exit date;**
- **termination status (e.g., completer, non-completer);**
- **enrollment status (e.g., continuing enrollment, new enrollment);**
- **special status (e.g., transferred, dropped out, deceased, etc.);**
- **classification of instructional program code;**
- **WIA participant indicator; and**
- **provider type.**

After the files have been submitted, the data are put through a series of edit checks to ensure compatibility and accuracy. After the edit checking process is completed, the data are loaded to the system data files.

The confidential nature of information contained in the CFS mandates the use of strict safeguards in the collection, storage and use of the data. CFS data are stored on the Information Technology Systems (ITS) mainframe and are subject to Resource Access Control Facility (RACF) security protocols. Analyses not conducted on the mainframe are protected under Local Area Network (LAN) security that requires individual user data access profiles, as well as individual user ID's and passwords. At the time of system enrollment and with every data release, participants are informed of the confidential nature of the data and the legal restrictions on its use.

Following the completion of the data loading process, CFS staff analyzes the data, and the resulting analyses are utilized in the development and production of reports and files.

IS THE CFS COST-EFFECTIVE?

The CFS is an efficient and cost-effective method for collecting follow-up information for education, employment and training program participants. The extensive use of administrative records and computerized matching systems allows the costs to be held below that of any system that would rely upon phone or mail surveys to collect similar data.

The cost-effectiveness of the CFS can also be evaluated in terms of the benefit that the data provide to the participating entities. The system provides for the generation of employment and wage data without the use of telephone or mail surveys. Benefits include time saved not having to produce mail and analyze responses from program participants, making the return on investment invaluable.

Several of the participating agencies have utilized the information available through CFS to help meet several state and federal performance, policy and evaluation initiatives. The North Carolina Community College System has utilized the information to help in meeting federal performance requirements for the U.S. Department of Education including the National Reporting System for Adult Education programs and the Perkins IV core indicators. In addition, the Community College System is working in collaboration with LEAD to develop a set of performance measures for North Carolina's 58 Community Colleges. Data from CFS will be utilized as part of a larger performance system to help establish performance goals including employment outcomes for each college.

The University of North Carolina is utilizing the information from CFS to help complete internal analyses, help in strategic planning and to provide relevant information to the UNC Board of Governors (UNC BOG). The information is being utilized by the UNC BOG to develop an improved process for program approval and termination. Additionally the UNC BOG is reviewing available employment and wage information in helping to guide policy recommendations regarding tuition standards. UNC has recently released a new web based electronic dashboard that contains a variety of enrollment and graduation statistics and will have a link to the new NC TOWER. The NC TOWER information will assist in individual decision-making, career planning, and programmatic policy review by providing a variety of longitudinal employment and wage.

The Department of Public Safety has utilized information from CFS to help in the several evaluations of programs offered to individuals in prison. These have included evaluations of the Prisoner Education program, B.R.I.D.G.E, Correction Enterprises and Incarcerated Individuals program. This information has helped the agency's planning efforts towards interventions that demonstrate positive outcomes for participants. In addition, it has also facilitated the agency's ability to fulfill federal grant reporting requirements.

The Department of Commerce has utilized the information to assist in meeting several U.S. Department of Labor reporting requirements including those required under the Workforce Investment Act and the Trade Act programs. CFS information was utilized in the development of required performance information for eligible training providers as required under WIA.

In addition, several of the agencies have utilized the information to respond to legislative inquiries regarding education, workforce development, and economic development initiatives. These inquiries have included requests for information regarding educational and workforce development programmatic outcomes as well as legislative inquiries regarding Unemployment Insurance recipients.

WHAT ARE THE STRENGTHS AND LIMITATIONS OF CFS DATA?

The scope of the CFS is extensive in terms of the number of entities and individuals processed as well as the breadth of program and service coverage. Review of follow-up systems in other states reveals that North Carolina's CFS offers the most comprehensive coverage in terms of both tracking duration and breadth of participants. Many states and governmental entities with similar missions and mandates view the CFS as a model for delivering follow-up information. Many of these entities have sought the advice of agency staff on implementing similar systems in their jurisdictions. The CFS is an efficient and cost-effective tool for long-term follow-up. This is due to the reliance on automated matching of administrative records. However, since much of the data utilized in the CFS were originally gathered for different purposes, the resultant output possesses both inherent strengths and limitations. Several of the most significant areas are described below:

Wage information includes information on individuals:

- **working in jobs covered under North Carolina Unemployment Insurance;**

Available employment-related data includes:

- **the employment status of the individual;**
- **the size of the employing firm; and**
- **the North American Industry Classification System (NAICS) code of the firm.**

Wage information reflects total quarterly earnings; hourly or weekly wages are not available.

Wage information is not available for individuals who:

- **work outside of North Carolina, or**
- **are employed in North Carolina, but not covered by unemployment insurance (e.g., the self-employed, church and religious organization employees, summer camp employees, and other non-covered workers).**

Employment related data which cannot be determined includes:

- **the entry-on-duty date of employment for the individual;**
- **the employment type (i.e., permanent, temporary, part- or full-time);**
- **whether the person worked at all during the quarter;**
- **the number of hours worked for the quarter; and**
- **the person's occupation.**

PARTICIPATION SUMMARY ACROSS THE YEARS

Since its inception, the system has experienced tremendous growth. CFS staff and the participating entities have made concerted efforts to incorporate information regarding additional programs and individuals from existing entities and to solicit the participation of other entities. The analyses that are included in the following sections reflect data supplied by the participating entities for services that were provided through June 2013.

The CFS has expanded dramatically since its inception in the early 1990's. Table 1 provides a summary of the number of individuals contained in the system from 2004 through 2013. The system currently contains information on over 8.8 million individuals. Since the system's inception, the number of individuals has dramatically increased.

TABLE 1. INFORMATION REGARDING THE NUMBER OF INDIVIDUALS CONTAINED IN THE COMMON FOLLOW-UP SYSTEM (CFS) 2003 - 2004 PROGRAM YEAR THROUGH THE 2012 - 2013 PROGRAM YEAR	
Year	Individuals
2004	6,093,822
2005	6,391,214
2006	6,736,374
2007	7,079,373
2008	7,382,619
2009	7,740,594
2010	8,049,441
2011	8,328,398
2012	8,592,028
2013	8,830,118

In November of 2011, the Employment Security Commission (ESC) merged with the Department of Commerce. This included the merger of the former Employment Services Division from ESC with the Division of Workforce Development (DWD) from the Department of Commerce. The staff, resources and functions of the two divisions resulted in the creation of the Division of Workforce Solutions (DWS). This merger initiated the integration of the information systems previously operated by the separate divisions under DWS. In addition, in January of 2014, the Department of Labor's Apprenticeship program was transferred to the Division of Workforce Solutions. Information and analyses in the following sections reflect the new combined organizational structure of DWS. Information previously reported separately under the Department of Labor, DWD, ESC and the JobLink system are now reported under DWS.

During the 2012-2013 CFS Year, the following entities provided data to the system:

- **The North Carolina Department of Public Safety’s**
 - **Division of Adult Correction (DAC);**
- **The North Carolina Department of Public Instruction (DPI);**
- **The North Carolina Department of Commerce’s**
 - **Division of Workforce Solutions (DWS);**
- **The North Carolina Department of Health and Human Services’**
 - **Division of Services for the Blind (DSB);**
 - **Division of Social Services (DSS);**
 - **Division of Vocational Rehabilitation Services (DVR);**
- **The North Carolina Community College System (NCCCS); and**
- **The University of North Carolina (UNC)**

Analyses of historical data contained in CFS provide an understanding of the scope of the system. Table 2 presents the cumulative number of records and individuals processed by the CFS as well as the number of entities participating in CFS. During the 2012-2013 CFS year the number of unique individuals included in the system increased to 8,830,118.

TABLE 2. NUMBER AND PERCENTAGE OF RECORDS AND INDIVIDUALS PROCESSED SINCE INCEPTION BY PARTICIPATING AGENCY AND SYSTEM WIDE				
AGENCY	Number of Records	Percentage of Total Records	Number of Individuals	Percentage of Total Individuals
DIVISION OF ADULT CORRECTION	13,803,625	6.7%	837,298	9.5%
DEPARTMENT OF PUBLIC INSTRUCTION	6,589,808	3.2%	2,176,027	24.6%
DIVISION OF SERVICES FOR THE BLIND	92,658	0.0%	17,596	0.2%
DIVISION OF SOCIAL SERVICES	6,995,032	3.4%	1,253,841	14.2%
DIVISION OF VOCATIONAL REHABILITATION SERVICES	3,024,981	1.5%	362,013	4.1%
DIVISION OF WORKFORCE SOLUTIONS ¹	145,353,640	70.1%	4,930,075	55.8%
NORTH CAROLINA COMMUNITY COLLEGE SYSTEM	23,216,676	11.2%	5,230,814	59.2%
UNIVERSITY OF NORTH CAROLINA	8,239,872	4.0%	1,310,366	14.8%
INDEPENDENT COLLEGES ³	13,106	0.0%	8,842	0.1%
TOTAL	207,329,398	100.0%	8,830,118	100.0%

ANALYSES OF INDIVIDUALS SERVED BY EACH AGENCY OVER TIME

The numbers of individuals served by each agency and across all agencies over the past 10 program years are displayed in Table 3 and Table 4. The number of individuals was obtained by performing a unique count of the Social Security Numbers (SSNs) submitted by each agency. The unique number of individuals across all agencies was obtained by performing a total unique count of the SSNs contained in the system across all agencies by CFS year. Analyses of data by CFS year indicate that the number of individuals who received services through the participating entities ranged from 2.2 million in CFS Year 2004-2005 to almost 2.6 million in CFS Year 2009-2010.

Over the 10 Year period July 1, 2003 through June 30, 2013 almost 6.3 million individuals received services through the participating agencies. This includes over 3.4 million individuals who received a variety of workforce services through the Division of Workforce Solutions and almost 3.4 million who participated in education and training programs through the North Carolina Community College System. While DWS and NCCCS provide services to large numbers of individuals, North Carolina's public school system provides the building blocks upon which other education, employment and training services rely. Over the 10-year time period 1.3 million individuals were enrolled in public high school programs. UNC is the state's publicly supported university system. Over the 10-year time period, UNC provided educational programs to more than 750,000 individuals.

Several agencies provide services to very specific sub-populations. The DSS provided employment and supportive services to 930,191 Work First and Food Stamp Employment Program participants, while DAC provided services to 609,658 offenders in prison, on probation or parole. The DVR provided rehabilitation services to 209,581 individuals with physical and mental disabilities, and DSB provided vocational rehabilitation services to more than 11,000 blind, visually-impaired and multi-handicapped individuals.

It is important to keep in mind that some entities are authorized to provide services to large segments of the population (e.g., DWS and NCCCS), while others are authorized to provide services to very specific sub-populations based on stringent eligibility criteria including occupational goal, income, disability type, severity of disability and educational criteria (e.g., DSS, DVR, DSB and UNC).

INTERRELATIONSHIPS AMONG AGENCIES IN THE PROVISION OF SERVICES

A significant feature of the CFS is its longitudinal structure, which fosters the examination of the interrelationships among entities in the overall provision of services and an understanding of the paths individuals follow while utilizing these services. Several initiatives at both the State and National level have called for the coordination, collaboration and integration of services to

individuals across education, employment and training programs. These initiatives include the JobLink Career Center System, Workforce Investment Act (WIA), North Carolina's welfare reform legislation, as well as attention from the education, employment and training agencies themselves.

In order to provide an understanding of the interrelationships among entities in the provision of services data were analyzed both within and across the last 10 program years (July 1, 2003 through June 30, 2013). Data from the participating agencies were utilized in these analyses. These agencies vary in terms of their organizational structure. That is, some of the agencies encompass several divisions within a given agency, others encompass a single division within a given agency and others encompass the combined work of staff across multiple agencies and programs. The data provided by each of these agencies includes information regarding one to several programs and/or services.

Analyses focused on determining the unique number of individuals who received services through each agency, the unique number of individuals who received services across agencies, the number of agencies from which individuals received services and the number of individuals found in common among the agencies. This analysis is presented in Tables 5 and 6.

TABLE 3: UNIQUE NUMBER OF INDIVIDUALS BY AGENCY AND SYSTEM WIDE ACROSS THE 10-YEAR TIME PERIOD JULY 1, 2003 THROUGH JUNE 30, 2013	
AGENCY	Number of Individuals Across the 10 Year Time Period
DIVISION OF ADULT CORRECTION	608,305
DEPARTMENT OF PUBLIC INSTRUCTION	1,297,850
DIVISION OF SERVICES FOR THE BLIND	11,240
DIVISION OF SOCIAL SERVICES	996,110
DIVISION OF VOCATIONAL REHABILITATION SERVICES	207,398
DIVISION OF WORKFORCE SOLUTIONS ¹	3,390,148
NORTH CAROLINA COMMUNITY COLLEGE SYSTEM	3,369,077
UNIVERSITY OF NORTH CAROLINA	774,872
TOTAL	6,293,258

TABLE 4. NUMBER OF INDIVIDUALS BY PARTICIPATING AGENCY CFS YEARS: 2003 – 2004 THROUGH 2012 – 2013

AGENCY	CFS YEAR									
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
DIVISION OF ADULT CORRECTION	205,459	207,701	214,791	220,454	226,368	224,311	236,242	230,126	216,063	183,614
DEPARTMENT OF PUBLIC INSTRUCTION	366,683	350,848	364,797	406,522	332,133	365,196	346,328	309,093	290,835	240,739
DIVISION OF SERVICES FOR THE BLIND	3,084	3,044	3,151	3,118	3,073	3,207	3,441	3,479	3,581	3,737
DIVISION OF SOCIAL SERVICES	168,618	168,935	150,541	176,230	194,708	242,369	235,823	268,394	309,691	345,523
DIVISION OF VOCATIONAL REHABILITATION SERVICES	55,746	57,382	65,164	50,077	48,282	52,598	57,473	60,421	61,207	60,105
DIVISION OF WORKFORCE SOLUTIONS ¹	920,642	907,788	962,214	875,661	911,089	1,080,310	1,175,807	1,044,628	1,013,587	986,408
NORTH CAROLINA COMMUNITY COLLEGE SYSTEM	842,123	856,905	861,880	852,384	856,629	881,907	868,564	858,305	835,416	819,156
UNIVERSITY OF NORTH CAROLINA	210,679	217,509	220,331	225,477	230,759	235,431	239,812	240,236	238,348	236,332
UNIQUE INDIVIDUALS ACROSS ALL AGENCIES	2,217,229	2,206,530	2,278,625	2,258,395	2,244,749	2,466,957	2,550,161	2,437,054	2,398,400	2,325,350

TABLE 5. NUMBER OF INDIVIDUALS SERVED BY EACH AGENCY AND THE NUMBER AND PERCENT OF INDIVIDUALS IN COMMON AMONG AGENCIES CFS YEAR: 2012 – 2013									
AGENCY	TOTAL	DAC	DPI	DSB	DSS	DVR	DWS	NCCCS	UNC
DIVISION OF ADULT CORRECTION	183,614	183,614 100.0%	1,190 0.6%	91 0.0%	27,427 14.9%	4,497 2.4%	47,985 26.1%	40,348 22.0%	986 0.5%
DEPARTMENT OF PUBLIC INSTRUCTION	240,739	1,190 0.5%	240,739 100.0%	62 0.0%	2,609 1.1%	4,025 1.7%	4,460 1.9%	21,944 9.1%	730 0.3%
DIVISION OF SERVICES FOR THE BLIND	3,737	91 2.4%	62 1.7%	3,737 100.0%	385 10.3%	74 2.0%	825 22.1%	443 11.9%	125 3.3%
DIVISION OF SOCIAL SERVICES	345,523	27,427 7.9%	2,609 0.8%	385 0.1%	345,523 100.0%	10,455 3.0%	131,579 38.1%	60,631 17.5%	3,840 1.1%
DIVISION OF VOCATIONAL REHABILITATION SERVICES	60,105	4,497 7.5%	4,025 6.7%	74 0.1%	10,455 17.4%	60,105 100.0%	18,232 30.3%	13,400 22.3%	854 1.4%
DIVISION OF WORKFORCE SOLUTIONS ¹	986,408	47,985 4.9%	4,460 0.5%	825 0.1%	131,579 13.3%	18,232 1.8%	986,408 100.0%	197,791 20.1%	15,633 1.6%
NORTH CAROLINA COMMUNITY COLLEGE SYSTEM	819,156	40,348 4.9%	21,944 2.7%	443 0.1%	60,631 7.4%	13,400 1.6%	197,791 24.1%	819,156 100.0%	24,647 3.0%
UNIVERSITY OF NORTH CAROLINA	236,332	986 0.4%	730 0.3%	125 0.1%	3,840 1.6%	854 0.4%	15,633 6.6%	24,647 10.4%	236,332 100.0%

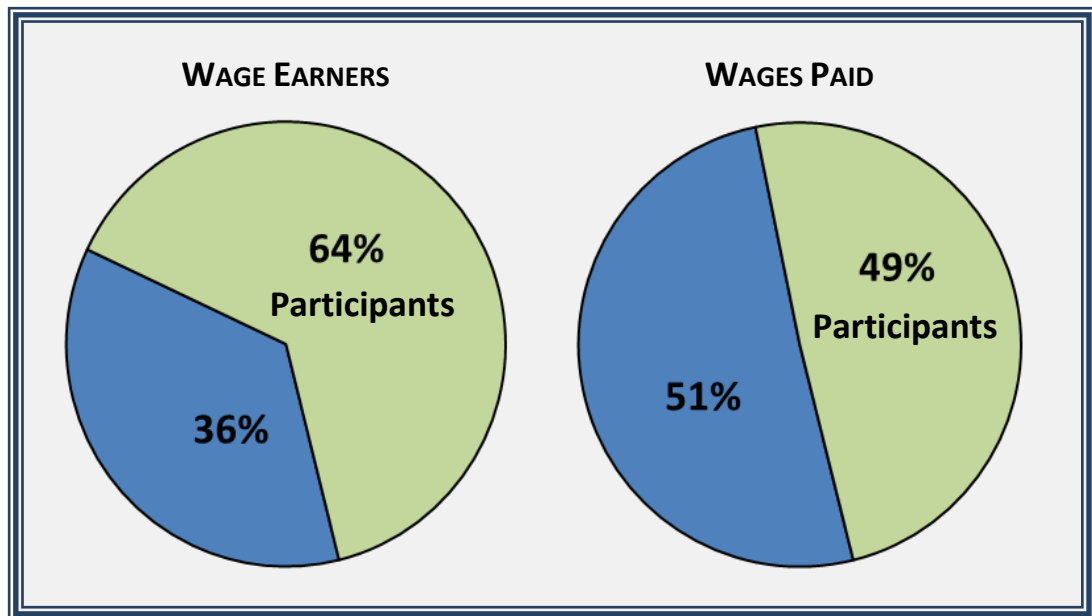
TABLE 6. NUMBER OF INDIVIDUALS SERVED BY EACH AGENCY AND THE NUMBER AND PERCENT OF INDIVIDUALS IN COMMON AMONG AGENCIES CFS YEARS: 2003 – 2004 THROUGH 2012 – 2013									
AGENCY	TOTAL	DAC	DPI	DSB	DSS	DVR	DWS	NCCCS	UNC
DIVISION OF ADULT CORRECTION	608,305	608,305 100.0%	84,474 13.9%	1,015 0.2%	229,241 37.7%	46,372 7.6%	383,889 63.1%	319,895 52.6%	18,102 3.0%
DEPARTMENT OF PUBLIC INSTRUCTION	1,297,850	84,474 6.5%	1,297,850 100.0%	708 0.1%	161,809 12.5%	44,737 3.4%	364,163 28.1%	600,334 46.3%	244,575 18.8%
DIVISION OF SERVICES FOR THE BLIND	11,240	1,015 9.0%	708 6.3%	11,240 100.0%	2,510 22.3%	815 7.3%	6,402 57.0%	4,096 36.4%	520 4.6%
DIVISION OF SOCIAL SERVICES	996,110	229,241 23.0%	161,809 16.2%	2,510 0.3%	996,110 100.0%	74,996 7.5%	785,997 78.9%	533,782 53.6%	34,034 3.4%
DIVISION OF VOCATIONAL REHABILITATION SERVICES	207,398	46,372 22.4%	44,737 21.6%	815 0.4%	74,996 36.2%	207,398 100.0%	136,436 65.8%	114,587 55.2%	8,802 4.2%
DIVISION OF WORKFORCE SOLUTIONS ¹	3,390,148	383,889 11.3%	364,163 10.7%	6,402 0.2%	785,997 23.2%	136,436 4.0%	3,390,148 100.0%	1,609,454 47.5%	205,740 6.1%
NORTH CAROLINA COMMUNITY COLLEGE SYSTEM	3,369,077	319,895 9.5%	600,334 17.8%	4,096 0.1%	533,782 15.8%	114,587 3.4%	1,609,454 47.8%	3,369,077 100.0%	341,101 10.1%
UNIVERSITY OF NORTH CAROLINA	774,872	18,102 2.3%	244,575 31.6%	520 0.1%	34,034 4.4%	8,802 1.1%	205,740 26.6%	341,101 44.0%	774,872 100.0%

RELATIONSHIP OF INDIVIDUALS SERVED TO THE NORTH CAROLINA ECONOMY

In addition to providing valuable information regarding the number of participants served by each agency, information from CFS may also be utilized to provide an understanding of the relationship between participants of the state’s education, employment and training programs and the overall economy.

Over the ten-year period July 1, 2003 to June 30, 2013, almost 6.3 million unique individuals participated in educational, employment and training programs through the participating agencies. During the 2012-2013 program year (2012 Q3, 2012 Q4, 2013 Q1 and 2013 Q2), there were 4.6 million unique individuals with wages reported to the Division of Employment Security. These 4.6 million individuals earned \$167.4 Billion in total wages. Analyses of the information supplied by the participating agencies to CFS demonstrate that of the 4.6 million wage earners, 2.9 million (or 64%) participated in education, employment and training programs through one of participating agencies during the 10-year period (July 1, 2003 – June 30, 2013). These individuals earned \$82.6 Billion in total wages or 49% of all wages paid in the year.

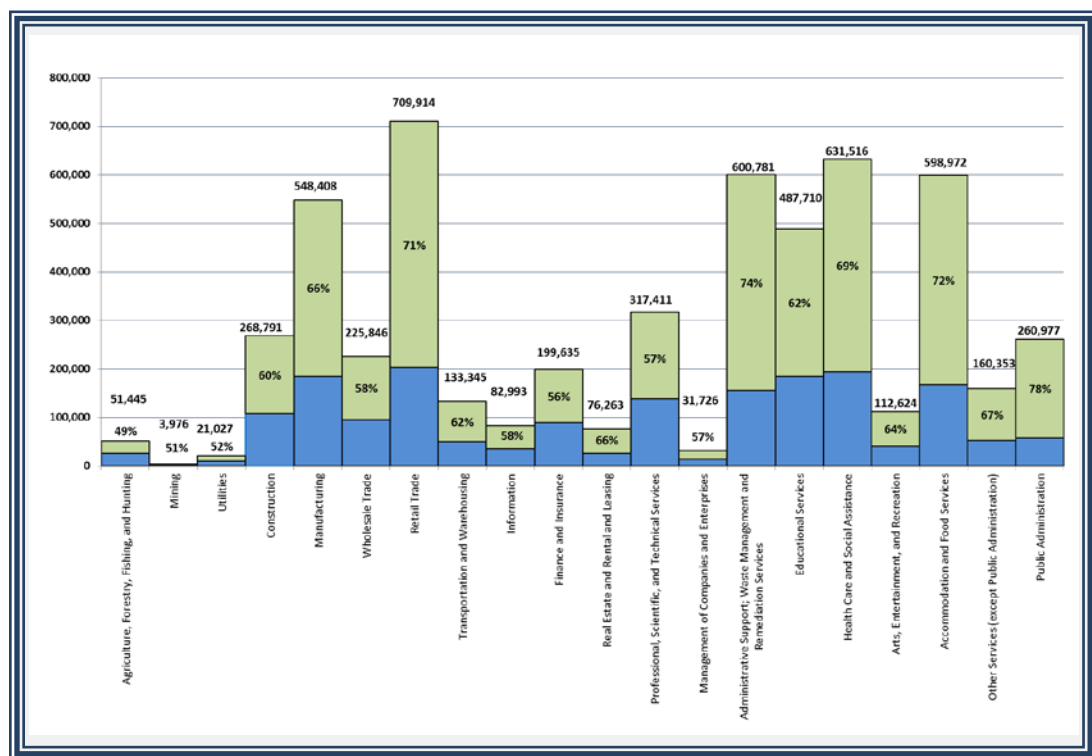
FIGURE 1. RATIO OF PARTICIPANTS OF NORTH CAROLINA’S EDUCATION, EMPLOYMENT AND TRAINING PROGRAMS JULY 1, 2003 – JUNE 30, 2013 TO ALL WAGE EARNERS AND WAGES PAID DURING THE 2012-2013 PROGRAM YEAR



These results indicate that more than 6 out every 10 individuals employed in jobs covered by the State’s Unemployment Insurance Laws during the 2012-2013 program year had been participants of one of the participating agencies in last 10 years. In addition, almost half of all wages paid in the state were paid to individuals who had been participants of one of the participating agencies in last 10 years.

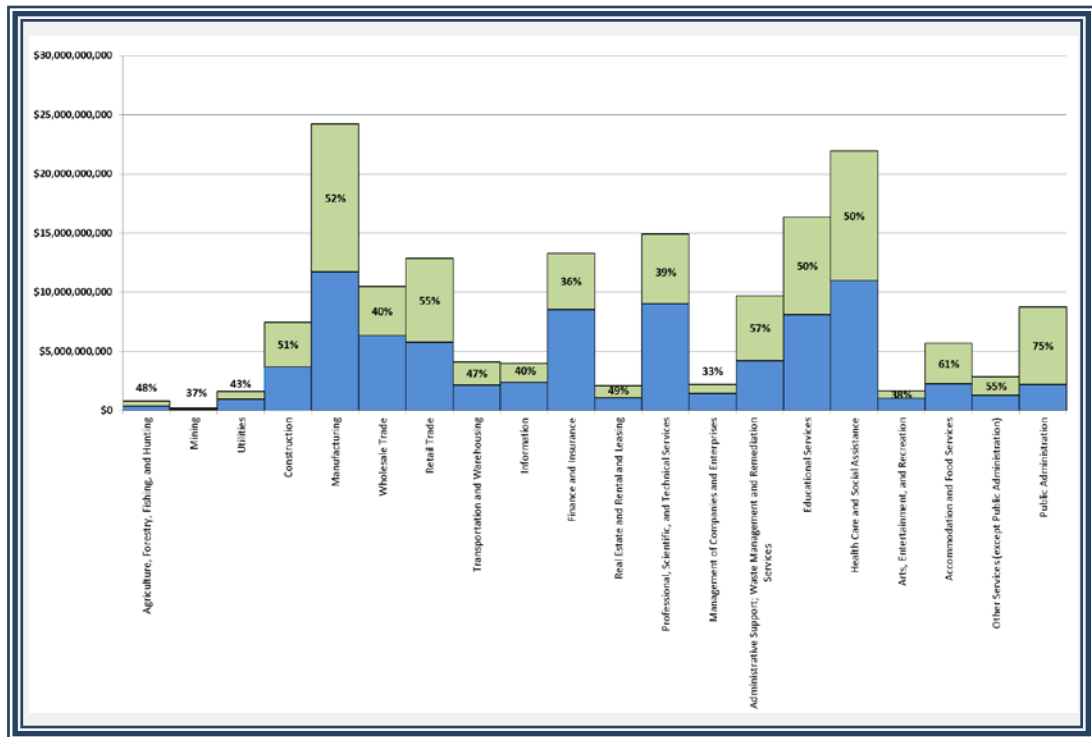
Further analyses by industrial sector demonstrate that over 49% of the individuals employed in each of the state’s major industrial sectors participated in programs and services through one of the participating agencies in the last 10 years. In addition, more than 6 out of every 10 individuals employed in the following major industrial sectors: Construction; Manufacturing; Retail Trade; Transportation and Warehousing; Real Estate and Rental and Leasing; Administrative and Support and Waste Management and Remediation Services; Educational Services; Health Care and Social Assistance; Arts, Entertainment and Recreation; Accommodation and Food Services, Other Services and Public Administration have been participants of these agencies in the last 10 years.

FIGURE 2. RATIO OF PARTICIPANTS OF NORTH CAROLINA’S EDUCATION, EMPLOYMENT AND TRAINING PROGRAMS JULY 1, 2003 – JUNE 30, 2013 TO ALL WAGE EARNERS DURING THE 2012-2013 PROGRAM YEAR BY INDUSTRIAL SECTOR



Analyses of the wages paid in each industry revealed that more than a third of the wages paid in each major industrial sector were paid to individuals who had participated in programs and services through one of the participating agencies in the last 10 years. In addition, at least 50% of the wages paid in nine of the major industrial sectors had been paid to participants. These results clearly demonstrate the connection between education, employment and training programs and the state’s economy and the need for continued coordination and enhancement of North Carolina’s education, workforce development and economic development.

FIGURE 3. RATIO OF WAGES PAID TO PARTICIPANTS OF NORTH CAROLINA’S EDUCATION, EMPLOYMENT AND TRAINING PROGRAMS JULY 1, 2003 – JUNE 30, 2013 TO ALL WAGES PAID DURING THE 2012-2013 PROGRAM YEAR BY INDUSTRIAL SECTOR



CONCLUSION

The *Common Follow-up System (CFS)* is an effective mechanism for providing information regarding the agencies, programs and participants that comprise North Carolina’s education, employment and training system. The CFS provides a valuable resource for understanding the educational and employment outcomes of individuals who participate in services as well as an understanding of the paths individuals follow while utilizing these services.

The scope of the CFS is extensive in terms of the number of entities and individuals processed as well as the breadth of program and service coverage. Analyses of data from the CFS indicate that *over the 10-year time period, July 1, 2003 through June 30, 2013 almost 6.3 million individuals received services through the participating agencies.*

Over the last program year extensive efforts have been undertaken to improve and enhance the CFS. This includes enhancement to the system processing, data storage, system operations and system outputs.

Over the 10-year time period the North Carolina Community College System provided services to 3.4 million individuals, while the Division of Workforce Solutions provided services to 3.4 million individuals. These numbers indicate that *over the 10-year time period approximately 1 out of every 3 North Carolinians were enrolled in education and*

training programs through the North Carolina Community College System and approximately 1 out of every 3 North Carolinians received employment and training services through the Division of Workforce Solutions.

Further interpretation of the data presented in this report indicates that there is substantial coordination and collaboration among agencies in the overall provision of education, employment and training services. *Over the 10-year time period, 1.6 million North Carolinians received both education and training services through the North Carolina Community College System and employment and training services through the Division of Workforce Solutions.* In addition, these two agencies provided services to large percentages of individuals from each of the other participating agencies.

While NCCCS and DWS form the cornerstone of North Carolina's education, employment and training system, each of the participating entities plays a fundamental role in the overall mission of preparing, developing and promoting a highly skilled workforce, improving the quality of life for North Carolinians and developing and sustaining a world class economy for the state and its communities.

There is a significant relationship between the individuals receiving services through the state's education and workforce partners and the North Carolina economy. Almost two thirds of all wage earners in the state in in the 2012-2013 program year received services through the participating agencies during the previous 10 program years. In addition, these individuals earned 49% of all wages. These findings help demonstrate the integral relationship that exists between the services provided by the state's education and workforce partners and the state's economy and the continued need for coordination among education, workforce development and economic development efforts.



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